

ANTIGUA AND BARBUDA



ENVIRONMENTAL PROTECTION AND MANAGEMENT ACT, 2019

No. 10 of 2019

*[Published in the Official Gazette Vol. XXXIX No.
dated , 2019]*

Printed at the Government Printing Office, Antigua and Barbuda,
by Noel F. Abraham, Acting Government Printer
— By Authority, 2019.

ANTIGUA AND BARBUDA

ENVIRONMENTAL PROTECTION AND MANAGEMENT ACT, 2019

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[L.S.]



I Assent,

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Governor-General.

ANTIGUA AND BARBUDA

ENVIRONMENTAL PROTECTION AND MANAGEMENT ACT, 2019

NO. 10 of 2019

AN ACT to provide for sustainable environmental protection and management of natural resources, to allocate administrative responsibility for the management of environmental matters; to give effect to Antigua and Barbuda's treaty obligations with respect to the environment and to provide the framework financial mechanism to satisfy the requirements of the Act and for other related matters.

ENACTED by the Parliament of Antigua and Barbuda as follows: —

PART I

PRELIMINARY

1. Short Title and Commencement

(1) This Act may be cited as the Environmental Protection and Management Act, 2019.

(2) This Act or parts of the Act may be brought into force on such a date or dates as the Minister may, by Notice published in the Gazette, appoint.

2. Interpretation

In this Act, unless the context otherwise requires—

“animal” means a vertebrate or invertebrate animal, whether living or dead, and includes the eggs or young of an animal;

“appropriate authority” means —

- (a) in relation to any hazardous substance transported by sea or inland waterway, the Antigua and Barbuda Port Authority;
- (b) in relation to any hazardous substance transported by air, road or sea, or stored in any commercial or industrial premises, the Pesticides and Toxic Chemicals Control Board;
- (c) in relation to pollution control, the Central Board of Health;
- (d) in relation to incidents relating to the development of land, construction of or involving the building of or the operation of any commercial, industrial or residential structure, the Development Control Authority;
- (e) in relation to incidents relating to the transportation, removing or taking of marine flora or fauna, the Fisheries Division;
- (f) in relation to incidents relating to the transportation, removing or taking of terrestrial flora, the Plant Protection Division and Forestry Unit;
- (g) in relation to issues relating to historical and cultural heritage sites, marine reserves and National Parks, the National Park Authority;
- (h) in relation to fires, the Fire Department
- (i) In relation to storage, collection, transportation, treatment and disposal of waste, the National Solid Waste Management Authority;
- (j) such other entities as may be appropriate from time to time.

“authorised officer” means an environment officer, forest and wildlife officer, police officer or other Government officer designated as an authorised officer by the Minister;

“biodiversity” means the variability among living organisms from all sources, including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part, and includes diversity within species and between species and of ecosystems and the term “biological diversity” shall have the same or corresponding meaning;

“biodiversity prospecting” means any activity undertaken to harvest or exploit, for purposes of research, product development, conservation or industrial or commercial applications—

- (a) samples of genetic resources;
- (b) samples of any derivatives of genetic resources;
- (c) the knowledge, innovations, or customary practices of local communities, and includes investigative research or sampling, but does not include customary uses of genetic resources or derivatives;

“biological resource” includes genetic resources, organisms or parts of such resources or organisms, a population, digital sequence information of such resources or organisms, or any other biotic component of an ecosystem with actual or potential use or value for humanity;

“Carbon Sink” means a process or an activity that removes greenhouse gas from the atmosphere for an indefinite period of time.

“CITES” means the Convention on International Trade in Endangered Species of Wild Fauna and Flora;

“controlled substance” means any ozone depleting substance listed in Schedule I;

“Council” means the Barbuda Council established under section 3 of the Barbuda Local Government Act, Cap. 44;

“derivative” means a naturally occurring biochemical compound resulting from the genetic expression or metabolism of biological or genetic resources, even if it does not contain functional units of heredity;

“Development Control Authority” means the Development Control Authority established under section 3 of the Physical Planning Act;

“Director” means the Director of the Department of Environment, or a person, for the time being duly appointed to act in that capacity;

“ecotourism area” means an area designated under this Act as such for the purpose of ecotourism activities;

“EIMAS” means the National Environmental Information Management and Advisory System;

“environmental audit” means a systematic evaluation of an organization, facility or site in order to –

- (a) identify and control the environmental impact of its activities, products or services;
- (b) improve its environmental performance continually; and
- (c) implement a systematic approach to
 - (i) setting and achieving environmental objectives and targets that reduce the environmental impact of its activities; products or services; and
 - (ii) demonstrating that these objectives and targets have been achieved;

“Environmental Impact Assessment” or **“EIA”** means an analytical system of assessing or reviewing environmental, social and economic consequences that are likely to result from a proposed development activity, beginning at the inception of the activity and ending at its completion or decommissioning;

“Environment Registry” means the registry established under section 87;

“forest reserve” means an area declared to be a forest reserve under the Forestry Act, Cap. 171;

“greenhouse gas” means those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation listed in Schedule II;

“hazardous substance” means a substance that is capable of posing a risk to health, safety, property or the environment and which is listed in a class of hazardous substances or other goods according to the classification detailed in Schedule III, and includes empty receptacles that have previously been used for the carriage of hazardous substances or hazardous wastes;

“hunt” means to kill, capture, take, trap, injure, shoot at, lie in wait for, wilfully disturb or molest and includes any attempt to or any assistance rendered or given in doing any of these things;

“land” includes the seabed and anything resting on the seabed or shore of the sea within the territorial waters of Antigua and Barbuda;

“minerals” includes gravel, limestone, lime, salt, sand, loam and earth;

“Minister” means the Minister with responsibility for the environment;

“multilateral environmental agreements” refers to any international or regional treaty ratified or acceded to by Antigua and Barbuda before or after the commencement of this Act and which addresses environmental matters;

“nature reserve” means an area declared under this Act as a site designated for the conservation and protection of habitat and for which a management plan is prescribed;

“Pesticides and Toxic Chemicals Control Board” means the “Pesticides and Toxic Chemicals Control Board established under section 3 of the Pesticides and Toxic Chemicals Act 2008;

“pollutant” includes any industrial, municipal or agricultural waste and the deposit or discharged, whether intentionally or otherwise, of other such substances which causes pollution of the environment, including but not limited to greenhouse gases, dredged soil, solid or liquid waste, incinerator residue, sewage, garbage, sewage sludge, chemical waste, hazardous waste, biological material, radioactive minerals, heat, wrecked or discarded equipment, oil and oil residue, rock, sand and other such substances which causes pollution of the environment;

“pollution” means the introduction, either directly or indirectly, of substances or energy into the environment, which results in deleterious effects such as harm to living resources and marine life, hazards to human health, hindrance to marine activities including fishing and other legitimate uses of the sea, impairment of quality for use of water, air or soil, reduction of amenities or the creation of a nuisance and includes the release or deposit of any pollutant or waste onto land or into the air or water;

“protected area” means any area declared as such and possessing the characteristics defined in any of the categories listed in Schedule IV;

“Protected watershed” refers to the watersheds listed in Schedule V.

“protected wildlife” refers to the flora and fauna specified in Schedule IX.

“Sustainable Island Resources Framework Fund” refers to the Fund established under section 92 and the word “Fund” and the acronym “SIRFF” are references to the same Sustainable Island Resources Framework Fund.

“SIRF Fund Board” means the Board appointed for the purpose of managing and administering the SIRF Fund.

“thematic funding window” means a funding window established pursuant to section 98 and as defined as a sub-structure within the fund that allows for specialisation in and a focus on a particular sector, issue, or access modality.;

“trade” means export, re-export, import, buying, selling or exchanging;

“traditional use” means an inherited pattern of action involving the use of natural resources passed on from generation to generation;

“waste” includes any matter prescribed to be waste and any matter, whether liquid, solid, gaseous or radioactive, which is discharged, emitted, or deposited in the environment in such volume, composition or manner as to cause an adverse effect;

“watershed” means a topographically delineated area where the surface or underground water drains into a larger body of water such as a stream, river, pond, lake or the sea;

“wetland” means an area of marsh, fen, peat land or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres;

“wildlife” includes all forms of flora and fauna, their eggs, young, shoots, or seeds but does not include any marine or domestic animal;

3. Objects of the Act

(1) The objects of this Act are to —

- (a) establish an integrated system for the sound and sustainable management of the environment for the benefit of present and future generations;
- (b) provide preventive and remedial measures for the control and mitigation of all forms of environmental degradation or pollution including the management of hazardous substances and wastes for the purposes of protecting human health and maintaining the quality of the environment;
- (c) facilitate the implementation of obligations assumed by Antigua and Barbuda under various multilateral environmental agreement;
- (d) make provision for the sustainable financing of the management of the environment and conservation of natural resources;
- (e) promote and encourage among all persons a better understanding and appreciation of the environment; and
- (f) enhance the legal, regulatory and institutional framework for environmental management.

(2) This Act shall regulate the social relations with regard to:

- (a) protection of the environment for present and future generations;
- (b) protection of human health;
- (c) conservation of biological diversity in conformity with the natural biogeographic characteristics of Antigua and Barbuda;
- (d) the conservation and use of environmental media;
- (e) the control and management of factors damaging the environment;
- (f) the exercise of control over the protection of the environment and over the sources of pollution;
- (g) the prevention and limitation of pollution;
- (h) the establishment and management of the National Environmental Monitoring System;
- (i) environmental strategies, programmes and plans;
- (j) collection of, and access to, environmental information;
- (k) the economic organization of environmental protection activities;
- (l) the rights and the obligations of the State, the municipalities, the juristic and natural persons in respect of environmental protection.

(3) The implementation of this Act shall be based on the following principles:

- (a) sustainable development;
- (b) prevention and reduction of risk to human health;
- (c) priority of pollution prevention over subsequent elimination of pollution damage;
- (d) public participation in and transparency of the decision making process regarding environmental protection;
- (e) public awareness regarding the state of the environment;
- (f) polluter pays for damage caused to the environment;

- (g) conservation, development and protection of ecosystems and the biological diversity inherent therein;
- (h) restoration and improvement of environmental quality in polluted and disturbed areas;
- (i) prevention of pollution and of other damage and adverse impact on clean areas of the environment;
- (j) integration of environmental protection policy into the sectoral and regional economic and social development policies;
- (k) access to justice in environmental matters.
- (l) that decisions pertaining to the environment are made in an integrated manner in which the Department of Environment, in collaboration with appropriate authorities, non-governmental organizations and other persons, determine priorities and facilitates coordination among governmental entities to effectively harmonize activities and where necessary, take action to protect, enhance and conserve the environment;

PART II ADMINISTRATION

4. Establishment and functions of the Department of Environment

(1) There is hereby established the Department of Environment (hereafter called the Department) within the Ministry with responsibility for the Environment.

(2) The Department shall –

- (a) co-ordinate the development and implementation of government's sustainable development, climate change, environment and natural resources management policies and activities;
- (b) co-ordinate and direct the implementation of multi-lateral environmental agreements;
- (c) establish and administer a sustainable financing mechanism for environmental management;
- (d) advise the Minister on amendments that may be required to this Act or any regulation made pursuant to this Act, for promoting sound environmental management and the maintenance of the nations natural resources; and

- (e) perform such functions as may from time to time be attributed to it by the Minister.

(3) The Department shall carry out all functions which are required for the proper discharge of its responsibilities under this Act which, without prejudice to the generality of the foregoing, shall include —

- (a) administering this Act;
- (b) keeping this Act and Regulations made thereunder under regular review to ensure compliance with the environmental policies of the Government and commitments under multilateral environmental agreements;
- (c) developing and implementing policies, programmes and plans for the effective management and conservation of the environment and natural resources consistent with the requirements of the Act;
- (d) coordinating environmental management functions performed by all governmental and non-governmental entities and statutory authorities in order to achieve the purposes of this Act;
- (e) undertaking the conservation, protection and management of biodiversity and the wildlife of Antigua and Barbuda including the management and licensing of biodiversity prospecting;
- (f) collaborating with the appropriate authority to ensure the effective administration and management of any area that is declared to be a protected area;
- (g) in collaboration with the appropriate authority, the development, implementation and monitoring of management plans and programmes for protected areas on Crown lands declared under this Act;
- (h) collaborating with the appropriate authority in the issuing of plant preservation orders;
- (i) monitoring compliance by Ministries and other government agencies with any regulations, standards, criteria and programmes established pursuant to this Act;
- (j) investigating incidence of suspected or reported offences under this Act;
- (k) conducting research, studies, surveys, monitoring programmes and reports related to the matters prescribed in the Act and Regulations made thereunder;

- (l) promoting the planning, approval and implementation of measures designed to ensure sound environmental management;
- (m) managing and administering the Sustainable Island Resources Framework Fund (SIRFFund) established under this Act;
- (n) requiring the payment of charges and user fees under such circumstances as may be prescribed under the Act or Regulations made thereunder;
- (o) planning and organising training courses for persons involved in environmental management;
- (p) the design and delivery of public education campaigns and relevant information activities to create a better understanding of the need for public cooperation in the sound management of the environment;
- (q) enforcing the provisions of this Act, including any Regulations issued hereunder, in a fair, rigorous and comprehensive manner;
- (r) making reasonable and timely efforts to ensure that environmental laws and regulations comply with relevant multi-lateral environmental agreements;
- (s) encouraging and facilitating public participation in the development, implementation and oversight of environmental laws and policies;
- (t) developing and implementing mechanisms for public comment on draft laws and regulations that pertain to the environment;
- (u) gathering, analysing, publishing and disseminating environmental data and information, including but not limited to preparing the State of the Environment Reports and such periodic or other reports that the Government is required to produce including reports required under any multilateral environmental agreement to which Antigua and Barbuda is a party;
- (v) providing advice on environmental management and other related services to the Ministry and other government agencies;
- (w) collaborating with other Ministries, departments of Government or statutory bodies having any function relating to the sustainability of the environment and protection of Antigua and Barbuda's natural resource base; and
- (x) performing such other functions as may be prescribed by the Minister.

(4) In performing its functions, the Department shall employ sound principles of environmental management, namely-

- (a) the “polluter pays” principle which provides that the polluter should bear the cost of measures to address pollution and restore the environment to an acceptable state, and should compensate citizens for the harm they suffer from pollution;
- (b) the “precautionary” principle which provides that where there are threats of serious or irreversible damage, the lack of full scientific certainty shall not be used as a reason for postponing measures to prevent environmental degradation;
- (c) the “avoidance” principle which provides that it is preferable to avoid environmental damage since it can be impossible or more expensive to repair damage to the environment.

(5) The Department has the power to do all things necessary or convenient to be done for the carrying out of its functions under this Act.

5. Appointment of Director and Deputy Directors

(1) The Department shall be under the control and direction of the Director of Environment appointed by the Public Service Commission.

(2) The Public Service Commission may appoint suitably qualified persons as Deputy Directors, who shall perform such functions as are prescribed under this Act or under regulations made pursuant to this Act.

6. Powers and duties of the Director and Deputy Directors

(1) The Director shall –

- (a) advise the Minister on the formulation, revision and implementation of environmental policies and the undertaking of programmes and projects for the effective management and wise use of the environment consistent with the requirements of this Act;
- (b) advise the Minister on protected areas to be declared under this Act;
- (c) cause to be submitted to the Minister, at an agreed time and in such form as the Minister may direct, a report of the activities of the Department for the preceding period, and when requested, such other reports as the Minister may require concerning the operations of the Department;

- (d) perform such other functions as may be prescribed by the Minister; and
- (e) undertake anything incidental or conducive to the performance of any of the foregoing functions.

(2) All statutory notices and other documents authorised to be issued by the Department under this Act shall be signed by the Director or by a Deputy Director to whom the function is delegated by the Director.

7. Appointment of Inspectors

(1) The Minister may, by instrument in writing, appoint as an inspector-

- (a) the Director, any Environment Officer who is a full-time employee of the Department, or an appropriate authority; and
- (b) any other individual retained by the Department pursuant to any requirement under the Act,

and shall specify in the instrument of appointment the powers that such person may exercise as an inspector under this Act.

(2) The Department shall cause to be issued to each inspector an identity card signed by the Minister which shall contain a photograph of the holder.

8. Delegation of powers

(1) The Director may, in writing, delegate to any other appropriate authority the power to exercise, carry out and perform such of the duties, powers and functions of the Director under this Act as deem advisable and on such terms and conditions as the Director may think fit.

(2) An appropriate authority to whom duties, powers and functions have been delegated by the Director under this section shall, subject to such terms and conditions as are specified in such delegation, do all such things necessary for the carrying out of those duties, powers and functions.

(3) Anything done by the personnel of an appropriate authority pursuant to a power or duty delegated under subsection (1) has the same force and effect as if it had been done by the Director but shall not prevent the discharge by the Director of any function thereby delegated.

9. Limitation of personal liability

No personal liability shall attach –

- (a) to the Director; or
- (b) to a Deputy Director, environment officer or the personnel of an appropriate authority acting under the authority of the Director

for anything done, permitted to be done or omitted in good faith in the course of discharge by him or her of any duties, powers and functions under this Act.

10. Responsibilities of Minister

The Minister shall be responsible for –

- (a) collaborating with other Ministers of Government to secure consistency and continuity in the implementation of this Act and any other laws related to environmental management;
- (b) establishing and coordinating institutional linkages, nationally, regionally and internationally;
- (c) developing and promoting a National Environmental Management strategy and Policy (NEMS) so as to ensure the integration of all aspects of environmental management including ozone depletion, climate change, hazardous wastes, water quality, air quality, watershed, wetland, biodiversity and forestry management into decision-making;
- (d) overseeing the administration of this Act by the Department to which responsibility for the administration of this Act is assigned by section 7;
- (e) giving directives to produce reports that are required under any multilateral environmental agreement to which Antigua and Barbuda is a party, and will take steps to ensure that the data can be collected from respective agencies;
- (f) encouraging and facilitating the participation of all persons, nongovernmental organizations and local communities in matters pertaining to environmental management in Antigua and Barbuda;
- (g) protecting and promoting the interests of Antigua and Barbuda in the negotiation of environmental treaties and ensure that Antigua and Barbuda meets its international obligations with respect to the environment; and
- (h) such other duties consistent with these functions as may be provided for in this Act or regulations made under this Act.

11. Policy directions and delegation by Minister

(1) The Minister may in writing delegate to the Director any of his or her functions under this Act other than the power to make Regulations pursuant to section 121, and this delegation of function may be –

- (a) subject to such conditions, qualifications and exceptions as may be specified; and
- (b) revoked or varied at any time.

(2) Any delegation while in force shall not prevent the discharge by the Minister of any functions thereby delegated.

PART III
SPECIAL POWERS OF ENTRY AND INSPECTION

12. Powers of entry and inspection

(1) Subject to subsection (2), an inspector may, upon presentation of his identity card and such other reasonable evidence of his authorisation by the Department be allowed entry into any premises for the purpose of—

- (a) developing or assisting in the development of any programme under this Act;
- (b) monitoring compliance with any environmental programme, condition, permit, licence or requirement under this Act;
- (c) obtaining information;
- (d) obtaining samples,;
- (e) confiscating any article relevant to an offence or violation under this Act;
- (f) generally examining and inspecting the premises, facility, plant, structure, equipment, apparatus, operation or process at the plant; and
- (g) carrying out any provision or requirement of this Act.

(2) An inspector shall not be permitted to enter any premises, or obtain any information or sample under this Part, unless—

- (a) the occupier or person in charge of the premises gives consent to the entry; or

- (b) where the occupier or the person in charge of the premises does not consent, the Department first obtains a warrant issued by a Magistrate.

(3) If the use of force is required in executing a warrant, performing an inspection, obtaining samples or other information, or performing any other function under this Act, the inspector shall be accompanied by a police officer who shall render such reasonable assistance as may be necessary.

13. Obtaining information and samples

(1) In the course of any entry permitted by section 12, an inspector shall, where necessary and relevant to any environmental programme, condition, licence, permit or requirement under this Act, be allowed to review and copy any documents and records, take photographs, inspect any premises or vehicle on said premises, and take any samples for purposes of laboratory analysis of any air, water, soil or other material, regardless of its nature.

(2) If samples are taken pursuant to subsection (1), the owner or operator of such premises shall, upon request, be provided with a receipt for the sample collected which identifies the type of analyses to be performed.

14. Treatment of samples and information obtained

(1) Where a sample is taken pursuant to section 13(1), the inspector taking the sample shall submit the sample for analysis or examination to a designated scientific laboratory in accordance with accepted forensic procedures.

(2) Where a person from whom documents, records or other information has been taken pursuant to section 13, claims that the information should be treated as a trade secret or confidential business information, the Department shall treat such information as confidential until such time as a court determines that the public interest in disclosing the information outweighs the prejudice that may be caused to the person or business by the disclosure of the information.

(3) An inspector who has entered any premises pursuant to section 12 shall leave such premises as effectually secured against trespassers as he or she found them.

15. Power to compel certain works

(1) Where it appears to the Director that works may be required on any premises for the protection of or in the interest of the environment, the Director may serve or cause to be served on the owner or occupier of the premises a notice in writing signed by the Director or a Deputy Director requiring the owner or occupier to execute the works that are considered necessary.

(2) A notice under subsection (1) shall –

- (a) indicate the nature of the works to be executed,
- (b) specify the period of time within which such work must be done;
- (c) the penalty for failing to carry out the work in the time specified; and
- (d) the procedure for challenging the Notice.

(3) An owner or occupier served with a notice under subsection (1) or any person having an interest in the premises to which the notice relates may at any time before the expiration of the time period specified in the notice pursuant to the provisions of subsection (2) and in accordance with any rules of court for the time being in force appeal to the Minister against the notice in accordance with the procedures established under section 119 on any of the following grounds—

- (a) that the notice or requirement is not justified for the protection of or in the interest of the environment;
- (b) that there is some informality, defect or error in or in connection with the notice;
- (c) that the work required by the notice to be executed is unreasonable in character or extent or are unnecessary; and
- (d) that the time within which works are required by the notice to be done is not reasonably sufficient for the purpose.

16. Payment of fine in lieu of legal proceedings

(1) A person who commits an offence contrary to this part may pay the prescribed fine as specified in the Notice to avoid legal proceedings.

(2) The fine shall be paid to the Department and the fine so paid shall be deposited into the Consolidated Fund.

PART IV ENVIRONMENTAL POLICIES AND PLANS

17. Cooperation in environmental management planning

(1) The Department shall facilitate cooperation among persons, government agencies and any other entity, and manage the environment in a manner which fosters participation and promotes consensus, including the encouragement and use of appropriate means to avoid, or expeditiously resolve, disputes through mechanisms for alternative dispute resolution.

(2) Any Ministry, government agency, or statutory body having authority over any matter which the Department has power to perform pursuant to this Act shall consult with the Department before determining such matter.

(3) The Cabinet may require the Minister to submit for its approval, with or without modifications, administrative schemes for-

- (a) the proper apportionment of environmental management functions between the Department and other Ministries, departments of Government or statutory body ;
and
- (b) the proper apportionment of the duties necessary for the performance of such functions between officers of the Department of Environment and officers of other Ministries, departments of Government or statutory bodies.

(4) An administrative scheme approved pursuant to subsection (3) may be altered or revoked by a revised scheme prepared by the Minister and submitted to and approved by the Cabinet.

(5) An approved or revised administrative scheme shall be published in the Gazette and shall take effect on the date on which it is published

18. National Environmental Policy Framework

(1) The Department shall as soon as practicable after the commencement of this Act, in collaboration with the appropriate authorities, Ministries or statutory bodies, undertake the preparation of a National Environmental Policy Framework in accordance with the objects of this Act.

(2) The National Environmental Policy Framework shall be based on the ecological, economic, social and cultural realities in Antigua and Barbuda, and shall include, at a minimum –

- (a) an assessment of climate change vulnerabilities and risks affecting the matter that is the subject of the policy;
- (b) an evaluation of the social, human health, economic and ecological considerations and issues in respect of the matter that is the subject of the policy;
- (c) the national priorities concerning the matter that is the subject of the policy;
- (d) an outline of the objectives to be achieved by the policy;

- (e) specific actions, initiatives or activities that shall be implemented to give effect to the objectives of the policy;
- (f) an identification of specific legal, financial and institutional aspects that need to be addressed to give effect to the policy;
- (g) the action plan and mechanisms to give effect to the policy, including any financial, legal and administrative requirements;
- (h) a listing and explanation of the mechanisms for monitoring the implementation of the policy, and to undertake the periodic review of the policy.

(3) The National Environmental Policy Framework shall be divided into chapters, which shall incorporate provisions for the following focal areas —

- (a) Ozone Layer depletion;
- (b) Climate Change;
- (c) Chemicals Management;
- (d) Biological Diversity;
- (e) Desertification;
- (f) International Trade in endangered species;
- (g) such other focal areas as the Minister may direct to be prepared.

(4) After considering the draft of the National Environmental Policy Framework, the Minister shall cause it to be submitted for public comment and participation in accordance with section 120.

(5) After considering the comments received under subsection (4), the Department shall submit a revised draft of the National Environmental Policy Framework to the Minister for approval.

(6) The National Environmental Policy Framework or any part thereof may be amended from time to time in accordance with the procedures set out in section 20.

(7) The Minister shall as soon as practicable after approving the National Environmental Policy Framework cause it to be laid in Parliament.

19. Orders to implement National Environmental Policy Framework

The Minister in collaboration with the Minister with responsibility for the appropriate authority may, by order, specify requirements to be observed for carrying into effect any aspect of the National Environmental Policy Framework, setting out —

- (a) the objectives of the National Environmental Policy Framework;
- (b) the areas affected by the order;

20. Amendment of National Environmental Policy Framework

(1) Before amending the National Environmental Policy Framework, the Department shall give notice to the public of its intention to do so by publishing a notice on three separate occasions over a period of 21 days in a daily newspaper of general circulation, and in the weekly publication of the official *Gazette*.

(2) The notice under subsection (1) shall provide—

- (a) a description of the proposed amendment and the reasons for the amendment;
- (b) that submissions on the proposed amendment may be made in writing by any person to the Director; and
- (c) the closing date for submissions, which must not be earlier than thirty days after public notice.

(2) A copy of the notice under subsection (1) shall be lodged in the Environment Registry.

(3) After consideration of submissions made, the Department shall develop a draft of the proposed amendment to the National Environmental Policy Framework and make it available for public review.

(4) The Director shall submit the proposed amendment to the National Environmental Policy Framework to the Minister, and the Minister shall, when satisfied with the amendment, publish a notice in the *Gazette* that the amendment to the National Environmental Policy Framework is in effect.

(5) A copy of the amended National Environmental Policy Framework shall be lodged in the Environment Registry.

21. Review of National Environmental Policy Framework

(1) A National Environmental Policy Framework that authorises or promotes a natural resource use activity shall be reviewed every three years after the date on which it comes into effect.

(2) The review of the National Environmental Policy Framework shall take into consideration any policy and implementation plan formulated under the National Environmental Policy Framework in order to ensure that development policy or implementation plan are undertaken in a manner so as not to adversely impact upon the natural resources of Antigua and Barbuda.

(3) Where there is a dispute as to the compatibility between any development policy or implementation plan and the National Environmental Policy Framework developed under this Part, the matter shall be referred to the Minister, whose decision shall be final.

22. National Environmental Policy Framework to be consulted for Environmental Impact Assessment

The National Environmental Policy Framework shall provide the basis for screening and evaluating development approvals affecting all activities under the environmental impact assessment process established under this Act and the Physical Planning Act 2003.

23. Compliance with the National Environmental Policy Framework

The Department and all other government agencies and statutory bodies shall conduct their operations and programmes and, to the extent of its authority, conduct its activities in accordance with the National Environmental Policy Framework.

**PART V
POLLUTION CONTROL****24. Register of sources of pollution**

(1) The Department shall establish within the Environment Registry, a register of sources of pollution, which shall contain data identifying the source, quantity, conditions or concentrations relevant to the identification of a pollutant.

(2) The Environment Registry under subsection (1) shall be opened to inspection by the public on payment of a fee, at the offices of the Department during ordinary business hours.

25. Time allowed for compliance

(1) Where, on the coming into force of any Regulations made under this Part, any person is engaged in an activity or process that, on a continuous or intermittent basis, causes or results in the deposit or release of any pollutant into the environment in excess of such standard as may be prescribed, the Department shall allow such person a reasonable time in which to bring such activity or process into compliance with the standard.

(2) In determining the amount of time that is reasonable under subsection (1) the Department may extend favourable treatment to small or medium sized enterprises.

26. Pollution control permits

(1) No person shall deposit or release a pollutant on or into land, water or the air, except in accordance with a pollution control permit issued by the Department.

(2) A permit issued under subsection (1) shall be subject to such conditions as the Department may determine.

(3) A pollution control permit shall not be required for the burning of agricultural waste or other by-products generated in the course of clearing agricultural holdings for planting or for the burning of household garbage, once the requisite fire permit has been received from the appropriate authority.

27. Notice of intention

(1) At least thirty days prior to making an application for a pollution control permit under section 26, the applicant shall publish in a daily newspaper of general circulation in Antigua and Barbuda a notice of intention to make such an application.

(2) The notice of intention shall –

(a) state

(i) the name of the applicant;

(ii) the location of the premises from which the pollutant is to be released;

6. the general nature of the process to be conducted on the premises giving rise to the pollution;

(iv) the pollutant to be released; and

- (v) the receiving environmental medium into which the pollutant is to be released.
- (b) advise members of the public of their right to make objections in writing against the application in accordance with subsection (3).

(3) When a notice of intention has been published any member of the public whose interests are likely to be affected by the grant of a pollution control permit may, within twenty-one days of the publication of the notice, make an objection in writing to the Department against the application, stating-

- (a) his or her name and address;
- (b) his or her interest in the matter; and
- (c) the nature and grounds of his or her objection to the application.

28. Application for pollution control permits

(1) Any person who releases or proposes to release any pollutant into the environment shall apply to the Department for the grant of a pollution control permit in the form as determined by the Department.

(2) An application for a pollution control permit shall be submitted to the Department at least fourteen days before the date on which the applicant proposes to commence an activity that is likely to result in the discharge of a pollutant into the environment.

(3) The application shall be in the form as may be determined by the Department and shall be accompanied by—

- (a) in the case of a point source of pollution, such plans and other particulars as are necessary to describe the premises or plant or equipment from which the pollutant is to be released into the environment, identifying the point of release or, in the case of mobile plant and equipment the place at which it will be in operation;
- (b) in the case of a non-point source of pollution, such plans and other particulars as are necessary to describe the situation and extent of the land or water on or over which the pollutant is to be released into the environment;
- (c) in any case where the pollutant to be released will result from a process or activity, a general description of that process or activity;

- (d) in any case where any other statutory consent is required for undertaking that process or activity, proof that the required consent has been obtained;
- (e) any proposals for the reduction, reuse or recycling of wastes, effluents and emissions generated by that process or activity; and
- (f) particulars of the type, volume and rate of release of the pollutant into the environment.

(4) Where the information supplied by the applicant under subsection (3) is inadequate for the purposes of evaluating an application, the Department may in writing request the applicant to provide such other information as is reasonably required and, where a request for such supplementary information is made, the application will be treated for the purposes of subsection

(3) as having been received on the date when the supplementary information is received by the Department.

(5) If the Director is satisfied that the applicant has shown a reasonable basis for the claim that the information is a trade secret or confidential business information, the Department shall not release or disclose any such information to any other person.

(6) The Department may at any time give notice to a person who discharges any pollutant requiring such person to apply for a pollution control permit.

29. Determination of applications

(1) The Department, in collaboration with the Central Board of Health, the Development Control Authority and any other relevant authority as the Department considers appropriate shall, upon receiving an application for a pollution control permit consider the application and either-

- (a) grant a pollution control permit to the applicant subject to such conditions as it thinks fit; or
- (b) refuse the application giving the applicant the reasons therefor.

(2) In considering an application for the grant or renewal of a pollution control permit the Department shall have regard to—

- (a) the applicable environmental quality standards including the Water Quality Management Criteria and Guidelines set out in Schedule VII and the Air Quality Criteria and Guidelines set out in Schedule VIII;
- (b) the background concentration of pollutants in the environment;

- (c) the desirability of preserving the quality of the environment at the existing level or restoring the quality of the environment to a higher level;
- (d) the desirability of ensuring that the best practicable available treatment or control of substances released into the environment is employed;
- (e) the combined effects of the proposed release of a pollutant into the environment and other existing releases into the environment; and
- (f) the desirability of making provisions for future releases of pollutants into the environment.

(3) In considering an application for a pollution control permit the Department shall also consider any objection made by any member of the public and may consult such other governmental organisations and persons as it deems necessary for assessing the merits of the application and any objection to it.

(4) Where an application for a pollution control permit is refused by the Department, or is granted by the Department subject to conditions, the applicant may, within twenty-eight days of his or her receipt of notice of the decision, appeal to the Minister in the manner prescribed under section 119.

30. Term of pollution permit

(1) Subject to subsection (2), a pollution control permit continues in force for the period specified therein.

(2) The Department may, on application of the permit holder made not later than ninety days before the expiry thereof, renew a pollution control permit for such period and upon such conditions as it deems fit.

31. Transfer of pollution control permit

A pollution control permit is not transferable.

32. Modification, suspension etc. Of pollution control permit

(1) Where it appears to the Director that it is expedient, having regard to a change in circumstances, including but not limited to changes in environmental conditions or pollution control technology, that any pollution control permit should be modified, the Director may –

- (a) give notice in writing to the permit holder of the intention to modify the permit;

- (b) allow the holder of the permit the opportunity to make representations on whether the modification should be done;
- (c) take into consideration such representations as are made before it and in writing by the permit holder or the representatives of the permit holder;

(2) A person who has incurred expenditure in carrying out work rendered abortive by the modification of a pollution control permit under subsection (1), or has otherwise suffered loss or damage directly attributable to such modification, is entitled to adequate compensation from the Crown in respect of that expenditure, loss or damage.

(3) The Director may, by notice in writing served on the permit holder, forthwith suspend the pollution control permit for such a period as the Director determines to be appropriate or revoke a pollution control permit where the permit holder—

- (a) fails to pay any amount payable under this Act;
- (b) fails to fulfil any of the conditions of the pollution control permit;
- (c) does not comply with the provisions of this Act or any regulations made hereunder in respect of any matter related to the pollution control permit or the purpose for which it was granted; or
- (d) where the Director is satisfied that any such default may result in irremediable damage to or irreversible degradation of the environment

(4) The Director shall not suspend or revoke a pollution control permit under subsection (3) unless the Director has—

- (a) served notice of the intention to revoke or suspend the permit on the permit holder;
- (b) given the permit holder 7 days after receipt of the notice to make representations; and
- (c) taken into account—
 - (i) any action taken by the permit holder to remedy such default; or
 - (ii) any action taken by the permit holder to mitigate against the recurrence of similar defaults; and
 - (iii) any representation to the Director by the permit holder pursuant to paragraph (b).

(5) Where the Director modifies, suspends or revokes a pollution control permit, the permit holder may appeal in writing to the Minister within 28 days of the decision setting out the grounds upon which the appeal is made.

33. Surrender of pollution control permit

(1) A permit holder may, by giving to the Director one month's prior notice in writing, surrender a pollution control permit.

(2) The Director shall by instrument in writing cancel a pollution control permit that has been surrendered.

34. Liability incurred by permit holder

The cancellation of a pollution control permit shall not affect any liability incurred by the permit holder before the suspension or revocation of the pollution control permit and any legal proceedings that might have been commenced or continued against the permit holder may be commenced or continued, notwithstanding the suspension or revocation of the pollution control permit, as if the permit had not been cancelled, revoked or surrendered.

35. Pollution charges

(1) The holder of a pollution control permit issued pursuant to this Part shall be liable for the payment of pollution charges with respect to the release of any pollutant into the environment.

(2) The following pollution charges are payable, in the amount as may be prescribed by regulations—

- (a) a pollution control permit fee is payable annually fifteen days prior to the start of the year to which it relates; and
- (b) a pollution levy, calculated on the basis of the amount of each pollutant released into the environment measured as specified by the Department is payable quarterly within fifteen days of the end of the quarter to which the payment relates.

(3) All revenues received as pollution charges shall be payable into the Consolidated Fund.

36. Director may order pollution be discontinued

(1) Where the Director, after consultation with the appropriate authority, is of the opinion that —

- (a) a source of contaminant or pollutant is adding to, emitting or discharging into the environment a contaminant or pollutant; or

- (b) such a contaminant or pollutant constitutes an immediate danger to life or to the health of any person or to property

the Director may issue an appropriate order directed to the person responsible for the source of such contaminant or pollutant to discontinue adding to, emitting or discharging such contaminant or pollutant.

(2) Where, in the opinion of the Director it is necessary or advisable to do so, the Director may, by an order directed to any person, require that person to have on hand and available at all times such equipment and material as the order specifies to alleviate the effect of any contamination or pollution to the environment.

(3) A person to whom an order is directed under this section commits an offence if such a person fails to comply with the order.

37. Prohibition notice

(1) Where an inspector reasonably believes that any owner or operator of a commercial or industrial facility has conducted or is likely to conduct an activity in any area such as to pose—

- (a) a serious threat to the environment,
- (b) a risk of death, bodily injury or disability to any person; or
- (c) a public health risk

The inspector may issue a prohibition notice to such owner or operator of the facility, in the manner set out in Form 7 of Schedule XI.

(2) A notice issued under subsection (1) shall —

- (a) specify that the owner or operator must cease the activity immediately,
- (b) identify the nature of the threat to the environment, the risk of death, bodily injury or disability pollution posed by the activity or proposed activity, or the risk of damage to human health,
- (c) specify the steps that must be taken by the owner or operator of the facility:
 - (i) to ameliorate the effect of the activity; or
 - (ii) to restore the environment, as much as may be possible, to its condition prior to the commencement of the activity;

- (d) specify the time within which the steps referred to in paragraph (c) must be taken;
- (e) specify that the owner or operator may challenge the Notice by lodging an appeal to the Minister within 7 days of the notice.

(3) An owner or operator of a commercial or industrial facility commits an offence if he or she fails to comply with the requirements of the notice and shall be liable to the penalties prescribed under paragraph (c) of Schedule X.

(4) A notice issued under subsection (1) shall be issued —

- (a) by delivering it personally to the owner or operator of the commercial or industrial facility;
- (b) by leaving it at the person's usual or last known place of residence;
- (c) by leaving it at the owner or operator's place of business with a supervisor, manager or someone in a position of authority; or
- (d) by posting it in a registered letter addressed to the owner or operator of the facility, or if the facility is owned by a registered company, to the last known registered office of the company.

(5) A prohibition notice shall be placed in a conspicuous place on the facility indicating that the facility, or a part of it, is not to be used to undertake any activity until the inspector certifies in writing that the threat or risk to the environment or to public health no longer exists.

(6) Where an appeal is made to the Minister against a prohibition notice in which the cessation of an activity is ordered, the notice shall remain in effect pending the final determination or withdrawal of the appeal.

38. Offset allowance

(1) Where the Director is satisfied that, while a pollution control permit is in force, the permit holder has expended money on scientific research or on new plant or equipment designed or intended to reduce the amount of pollutants released into the environment, the Director may allow the permit holder to claim to have offset part or all of the costs of such expenditure against the amount of the pollution levy that is payable to the Fund.

(2) If the Director rejects a claim or any portion of a claim for an offset allowance pursuant to subsection (1), the Director shall give reasons in writing to the permit holder, and the permit holder may within twenty-eight days of the date of the decision being made appeal to the Minister in the manner prescribed by this Act.

39. Liability for historical pollution

(1) Where any person is found to have polluted any part of the environment before the coming into force of this Act, the Department may, by notice require such person to take such measures to rehabilitate the environment in the manner specified in the notice.

(2) Where the Director finds that more than one person was responsible for such pollution, liability for undertaking the rehabilitation measures required pursuant to subsection (1) shall be assessed against such persons on a pro rata basis.

(3) A person who fails or refuses to comply with a requirement imposed by the Director pursuant to subsection (1), within the period of time allowed for compliance as specified in the notice, commits an offence and is liable on summary conviction to a fine of \$10,000 and to a sanction requiring rehabilitation of the polluted environment within a specified time, or to imprisonment for 3 months.

(4) A person who the Director has found to be solely or partly responsible for pollution under this section may file an appeal with the Minister within twenty-eight days of the date of service of the notice given under subsection (1).

PART VI ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

40. Strategic Environmental Impact Assessment

Where it appears to the Director that a proposed policy, plan or programme or an alteration to an existing policy plan or programme by a Ministry, Department of Government or statutory body may have a significant negative impact on the environment, the Director shall –

- (a) inform the Permanent Secretary assigned to the Ministry with responsibility for the Environment of these concerns ;
- (b) request the Permanent Secretary to the Ministry with responsibility for the Environment to send a letter to the Permanent Secretary of the Ministry or Department of Government or to the Chairman of the Board of the Statutory Body outlining the concerns of the Director; and
- (c) request the Ministry, Department of Government or statutory body to carry out a strategic environmental impact assessment of the proposed policy plan or programme or the proposed alteration to the existing policy plan or programme.

41. Environmental impact assessment process: screening and scoping

(1) Further to section 23 (2) of the Physical Planning Act 2003, if any proposed activity or development is planned in a national park or in a protected area, or may result in a negative impact on the environment, the Chief Town and Country Planner shall request the Director to conduct a screening exercise to determine if the proposed activity or development would require an Environmental Impact Assessment or EIA.

(2) Where the proposed development is likely to have any negative impact on the environment, a scoping exercise shall be done to determine the Terms of Reference for the preparation of the EIA.

(3) The Director shall forward to the Town and Country Planner for consideration, a written statement of the Department's findings and recommendations and a draft of the Terms of Reference for the EIA that is to be undertaken.

(4) The Terms of Reference shall, where appropriate, include a request that the developer submit with the environmental impact assessment, a copy of the design of the proposed activity and an environmental protection plan and monitoring programme.

42. Registration and publication of notice

(1) The Director shall register the matter by placing in the Environment Registry a copy of the notice issued by the Town and Country Planner to the developer advising that an EIA is required.

(2) The notice in the Environment Registry must also include an entry –

- (a) outlining the nature of the proposed undertaking or activity, and
- (b) specifying that the matter has been registered for an environmental impact assessment; and
- (c) indicating the place to which any written submissions may be made concerning the proposed activity and the time within which submissions are to be received by the Department.

43. Review of EIA

(1) Further to section 23 (5) of the Physical Planning Act 2003, the Director shall, at the request of the Chief Town and Country Planner, review the Environmental Impact Assessment resulting from the environmental impact assessment exercise.

(2) The Department shall post the EIA received under subsection (1) on its website and shall make the report available at its offices for public inspection for at least two weeks after its receipt.

(3) The Director shall, as part of the review of any EIA report, collaborate with other appropriate authority.

(4) The Director may consider the comments and observations made by the public in making a decision on an EIA.

(5) The statement of the Department's findings on the review shall be submitted to the Chief Town and Country Planner not later than 30 days from the date of the request made pursuant to subsection (1).

44. Decision on reports

(1) The Chief Town and Country Planner shall take into account and be guided by the recommendations of the Department in making a final decision on any EIA.

(2) The Chief Town and Country Planner shall forward a notice of the final decision on any EIA to the Director who shall cause the notice to be published in the Environment Registry.

(3) Any person who is dissatisfied with the decision of the Chief Town and Country Planner may appeal in accordance with the procedure outlined in Part IX of the Physical Planning Act 2003.

45. Application of other enactments

Nothing in this Part exempts a developer, whether recommendation for approval has been granted under this Part, from the requirements imposed by any other law having regard to the proposed development activity or undertaking.

46. Guidelines

The Director may issue guidelines for:

- (a) procedures for screening for EIA and other environment reports by responsible Ministries, government agencies and statutory bodies;
- (b) procedures for reviewing an Environmental Impact Statement;
- (c) procedures for implementing environment management or monitoring plans;

- (d) procedures for focus reports on impact assessment on any part of the ecosystem or biodiversity.

PART VII

ENVIRONMENTAL MANAGEMENT AND MONITORING

47. Environmental Management Systems

(1) The Department shall promote the adoption and implementation of environmental management standards promulgated by the International Organisation for Standardization ISO 14000 and, in particular, shall lend any assistance that may be required by the Bureau of Standards with regard to the development and implementation of national standards for environmental management and certification and auditing procedures.

(2) The Department shall, in collaboration with other Ministries, Departments of Government and statutory authorities, develop a programme to ensure that all Ministries, Departments of Government and statutory authorities and Government-owned or controlled corporations attain such environmental management certifications including International Organization for Standardization ISO 14000 certification within such time as may be practicable after the coming into force of this Act.

48. Environmental Management Plan for commercial or industrial facility

(1) The Director of the Environment shall prepare an inventory of commercial and industrial facilities existing in Antigua and Barbuda that conduct business of a nature that could significantly impact human health and the environment.

(2) The list of facilities shall be published electronically on the official website of the Department and on the official website of the Government of Antigua and Barbuda.

(3) The owner of a commercial or industrial facility shall prepare and submit for the approval of the Director, not later than two years after the commencement of this Part of the Act or such other time as the Director may direct, a site environmental management plan where the commercial or industrial facility-

- (a) discharges any waste or pollutant into the environment;
- (b) handles, stores, processes, or otherwise controls any hazardous substance;
- (c) produces or generates any waste, pollutant or hazardous substance; or

(4) An Environmental Management Plan shall contain the following matters—

- (a) a detailed description of the undertaking or activity at the facility, including technical information;
- (b) a description of all the environment and socio-economic impacts of all the undertakings at the facility or class of facility, together with a proposed environment management, mitigation or protection plans to address foreseen environmental and social impacts;
- (c) an implementation and monitoring programme for the proposed environment management, mitigation or protection plan, including reporting;
- (d) an environment commitment and Policy, including mechanisms and programmes for implementation, audit and review of the Policy and the proposed environment management, mitigation or protection Plan;
- (e) a description of the administrative mechanisms to implement the environment commitment and Policy;
- (f) a description of the organisational structure to implement the environment commitment and Policy;
- (g) a description of the legislative and regulatory requirements, including permits, licences, approvals, environment standards, and codes of practice applicable to the facility;
- (h) a description of the communication and training plans in place for all levels of facility staff concerning the Plan, including public information and awareness; and
- (i) signed approval by all relevant regulatory agencies that the proposed Environmental management plan meet all permit, licensing and approval requirements

(5) The Minister may, by Order, impose appropriate waste and pollution control measures on the owner of a commercial or industrial facility, which does not satisfy subsection (1).

(6) An Order made under subsection (5) shall specify—

- (a) the minimum environmental standards or environmental quality criteria that the facility must achieve and the deadline by which they must be achieved; and
- (b) the mechanisms for inspection, monitoring and enforcement to ensure compliance with the environmental standards or environmental quality criteria specified by the Minister.

(7) The Minister may, by Notice published in the Gazette, extend the deadline for the establishment of a plan under subsection (3), where plan preparations have commenced but have not been concluded for reasons other than a delay caused by representatives from a facility or class of facility.

49. Self-monitoring and audit

(1) The owner of a facility shall—

- (a) implement, at his own expense, any environmental management system, operational plan, monitoring programme, environment protection plan, or mitigation measure contained in the Plan; and
- (b) submit regular environment audit reports to the Department and any other specified regulatory agency to demonstrate compliance with any Plan that has been approved under this Part.

(2) The director may make a recommendation that the owner of a facility that submits an environment audit report under subsection (1) that does not comply with the requirements of this Act be prosecuted for non-compliance unless the owner of the facility –

- (a) within fourteen days of the submission of such report, establishes and begins to implement, to the satisfaction of the Director and every other relevant regulatory agency, a remediation plan to address the non-compliance within a specified period;
- (b) submits to regular inspections and monitoring, at its own expense for the verification of the implementation of the remediation plan and its effectiveness in changing the factor underlying the non-compliance;
- (c) submits any further environment audit report specified under the Plan, or as required by the Department or other agency; and
- (d) is in conformity with the Act, the regulations and the Plan no later than two years after the establishment of the remediation plan.

50. Report of environmental monitoring

The Department shall not later than three months after the end of each calendar year, submit an annual report on its environmental monitoring activities to the Minister and every such report shall be laid in Parliament and made available to the public, in electronic or printed form, on the payment of a fee to be prescribed.

51. Inspection of facility

(1) The Department, the Central Board of Health, the Development Control Authority and any other relevant authority may cause to be conducted any inspection that may be necessary to—

- (a) verify information contained in any audit report submitted pursuant to paragraph 49(1) (b); or
- (b) determine whether the design, development, construction, operation, or abandonment of any facility is undertaken in accordance with any environmental management system, operational plan, monitoring programme, protection plan, remediation plan or mitigation measure set out in the Plan

(2) Where the Director, at the conclusion of an inspection under subsection (1), is of the opinion that the facility has not complied with the Plan, the Director shall inform the Attorney General and request that an action in damages be taken in the name of the Government of Antigua and Barbuda against the facility or its management.

(3) In addition to any penalty or award for damages that may be imposed by the Court for failing to comply with the Plan, the Minister, on the advice of the Director may, by Order, impose appropriate waste and pollution control measures for the facility, including regular monitoring for a specified period at the expense of the facility.

52. Standards, procedures and guidelines

For the purpose of administering this Part, the Department, in consultation with the Central Board of Health and the Development Control Authority and any other relevant authority, shall in collaboration with the Bureau of Standards ensure the establishment of standards, guidelines and procedures concerning—

- (a) the establishment of Codes of Environmental Practice for various commercial activities and sectors that do not require an environment management plan under this Act;
- (b) the contents and submission of environment audit reports;
- (c) the review of environment audit reports;
- (d) the training and accreditation of environment auditors;
- (e) the accreditation of laboratories to undertake testing and sampling; and
- (f) sampling and analytical protocols to be utilised by any officer or laboratory.

PART VIII

NATURAL RESOURCES MANAGEMENT

53. Declaration of Purpose

(1) The following natural resources are common property which the Government has the responsibility to manage for the public good and for the benefit of present and future generations:

- (a) water resources, including surface and underground water;
- (b) mangroves and coastal wetlands;
- (c) watersheds.

(2) The right to investigate, use, control, protect, monitor, manage and administer the water resources of Antigua and Barbuda for domestic, stock, irrigation, agriculture, industrial, commercial, hydroelectric, geothermal, navigation, fishing, preservation of flora and fauna and other beneficial purposes and to prevent or mitigate the effects of climate change, erosion, deposition, solution, flotation, drainage, pollution and flooding is vested in the Government and its sustainable use by Government and the private sector shall be exercised on its behalf by the Department of Environment in consultation with the relevant Government agencies in accordance with this Part.

A. Management of Protected areas

54. Management principles for a protected area

(1) Further to the categories identified in Schedule IV, where a protected area is a closed area, it shall be managed in a manner that ensures the rehabilitation of any biosphere, flora and fauna or natural resource that has been damaged or depleted, or is at risk from being damaged or depleted, from any activity.

(2) Where the protected area is an ecotourism area, it shall be managed in a manner as to—

- (a) protect and conserve the natural resources that offer an attraction to tourist visitors; and
- (b) regulate visitor activity to ensure that the carrying capacity of the natural resources is not exceeded.

(3) Where the protected area is a foreshore reserve, it shall be managed in collaboration with the Fisheries Division to protect and conserve the marine resources within the reserve.

(4) Where the protected area is a forest reserve, it shall be managed in collaboration with the Forestry and Agricultural Division in a manner as to—

- (a) protect and preserve areas of natural forest;
- (b) ensure that the reserve's natural processes continue unaffected by human activity;
- (c) protect its biological diversity to the greatest possible extent.

(5) Where the protected area is a nature reserve, it shall be managed in a manner as to protect natural resources and maintain natural processes in an undisturbed state in order to have ecologically representative examples of the natural environment available for scientific study, environment monitoring and education, and for the maintenance of genetic resources in a dynamic and evolutionary state.

(6) Where the protected area is a historical or cultural heritage site, or a marine reserve, or a national park, it shall be managed in collaboration with the National Parks Authority.

(7) Where the protected area is a water catchment reserve, it shall be managed in a manner as to conserve, protect and manage the supply and quality of water available.

(8) Where the protected area is a wetland, it shall be managed in a manner as to conserve the diversity and integrity of representative communities of wetland areas as specified in the Convention on Wetlands of International Importance especially as Waterfowl Habitat; and

(9) Where the area is protected as a carbon sink it shall be managed in accordance with internationally accepted principles.

55. Establishment of protected areas

(1) Without prejudice to the provisions of sections 53 through to 57 of the Physical Planning Act 2003, the Minister may, by order, designate any area of land or any area within the territorial seas of Antigua and Barbuda as a protected area in order to—

- (a) safeguard and maintain representative samples of the natural ecosystems and endangered species that occur in those ecosystems;
- (b) propagate, protect, conserve, study and manage any ecosystem, flora, fauna or landscape;
- (c) protect examples of natural or scientific interest including fossilized wood and Forest of Stones;

- (d) provide educational and recreational areas that will permit the public to obtain valuable information on the resources of the protected area and appreciate and enjoy the values of protected areas;
- (e) provide for multiple-use resource areas which offer protection to ecosystems and resources while providing secondary social and economic benefit; or
- (f) in the case of areas declared as forest reserves, as a carbon sink, adaptation measure and for the conservation of soil and water

(2) The categories of protected areas shall be based on the listing used by the International Union for the Conservation of Nature as defined in Schedule X.

(3) Every protected area is to be managed in accordance with the management principles set out in the management plan created for such areas and developed by the competent authority in consultation with the Department.

56. Protected areas on Crown lands

(1) The Minister, acting on the advice of the Director and in collaboration with the appropriate authority may, by notice published in the *Gazette*, designate any area of Crown land as a protected area under section 55 by setting out—

- (a) a description of the boundaries of the protected area; and
- (b) a description of the category of protected area, including the nature of activities permitted or prohibited in it.

(2) Prior to the designation of any area as a protected area, the Minister shall ensure that the Department has—

- (a) consulted with all the relevant Government Ministries, Departments or statutory bodies, and with the Barbuda Council where the area to be designated is in Barbuda;
- (b) given notice of the proposed designation in a timely way so as to ensure that any issue raised by the public may be considered before the designation is made; and
- (c) considered and reported to the Minister on any submissions from any person.

(3) The notice under subsection (2) (b) shall be published at least twice in a daily newspaper of national circulation and also in the *Gazette* and shall provide—

- (a) a description of the category of protected area that is proposed, including the nature of activities permitted or prohibited in it;
- (b) a description of the boundaries of the proposed protected area;
- (c) that submissions on the proposed designation may be made in writing by any person;
- (d) the closing date for submissions, which must not be earlier than thirty days after public notice; and
- (e) the address where submissions are to be sent.

57. Protected areas on private lands

(1) Where the owner of private land or a non-Governmental organization recommends to the Department that an area may be suitable for the designation of a protected area, the Department may enter into consultations with such owner or non-governmental organisation with a view to securing the establishment of such an area as a protected area.

(2) For the purpose of consultation, the Department shall—

- (a) convene meetings with the landowner, persons resident on adjoining lands, other interested stakeholders, community groups, Government Departments and statutory bodies to determine the level of interest in securing the establishment of a protected area;
- (b) identify issues relating to the establishment of the proposed protected area;
- (c) determine precise boundaries, land-ownership and tenure in the proposed protected area;
- (d) obtain written confirmation from the landowner to preserve the area in the interest of biodiversity, resource conservation or ecotourism;
- (e) undertake environment surveys to determine requirements for an appropriate protected area management plan; and
- (f) negotiate and attempt to conclude a written covenant, easement or other agreement with the landowner concerning the management plan to be established in the proposed protected area.

(3) The Department shall give notice in the Gazette and at least one daily newspaper of national circulation, of the proposed designation as a protected area if a written agreement is obtained to—

- (a) preserve the area in the interest of biodiversity, resource conservation or ecotourism; and
- (b) administer and manage the area in compliance with a management plan to be established in the proposed protected area,

(4) The Notice under subsection (3) shall provide-

- (a) a description of the category of protected area that is proposed, including the nature of activities permitted or prohibited in it;
- (b) a description of the boundaries of the proposed protected area;
- (c) that submissions on the proposed designation may be made in writing by any person;
- (d) the closing date for submissions, which must not be earlier than thirty days after public notice; and
- (e) the address where submissions are to be sent.

(5) The Department shall report to the Minister after considering any submissions made and make a recommendation as to whether the protected area should be designated and if the Minister is of the view that the area should be designated as a protected area, the Minister shall, by notice published in the Gazette, designate such area to be a protected area.

(6) A written covenant, easement or other agreement concluded with the landowner binds the landowner and his or her successors in title, as well as the Government and may contain terms-

- (a) requiring the Government to—
 - i. acquire the land either by agreement with the landowner or under the Land Acquisition Act;
 - ii. provide financial and other assistance for the development and management of the protected area;
 - iii. provide technical advice; or
 - iv. carry out specific activities;

- (b) where the land is not compulsory acquired, allowing the landowner to carry out specific activities;
- (c) prohibiting or restricting a specific use or management of resources in the area;
- (d) requiring a land-owner to refrain from, or not to permit, specified activities; or
- (e) specifying the manner in which any financial assistance provided to a land-owner under the agreement is to be administered and applied by the land-owner.

(7) A written covenant, easement or other agreement concluded with the landowner pursuant expires if—

- (a) the area no longer supports the biodiversity critical to its determination as a protected area; or
- (b) the declared management plan for the area cannot be achieved.

(8) This section does not preclude a landowner from establishing a private conservancy area.

58. Designation of closed area

(1) The Minister may, after consultation with the Director, designate by Order published in the Gazette closed areas within or outside the protected areas, if he or she considers it necessary for the survival of any biological resource, genetic material, ecosystem or endangered species located in the designated area.

(2) An order made under subsection (1) shall specify the periods for which the designated area shall remain closed.

(3) Where an area has been designated under subsection (1), the Director shall cause to be erected at the area, a sign indicating that the area is a closed area and indicating the period of time for which the area is so designated and the reasons for such designation.

(4) The sign erected under subsection (2), shall indicate the activities that are prohibited within the closed area or if any exception is permitted.

(5) Where a closed area or any part thereof is to be designated on private land, the Minister may seek to acquire control of the area to be closed through the Land Acquisition Act, Cap. 233.

B. Watersheds Management

59. Modification of Wetlands and Watercourses

(1) No person shall for any purpose backfill, landfill or otherwise alter any wetland or watercourse whether or not listed in Schedule VI without the written permission of the Director.

(2) Notwithstanding the provisions of any other law, no person shall diminish, detain or divert or otherwise alter the flow of any watercourse through or abuts any land without the written permission of the Director.

(3) A person who contravenes the provisions of this section commits an offence and is liable on summary to the penalties established under paragraph (b) of Schedule X.

(4) Where prior to the coming into force of this Part of the Act, any weirs, culvert, sluices, landfill or any other activity was undertaken on any land to detain, diminish, divert or otherwise alter the flow of any watercourse the Director may require the owner of such land to –

- (a) produce an EIA on the effects of the obstruction;
- (b) in consultation with the Department, develop an environmental management plan;
- (c) restore the flow of the watercourse so as to restore the environmental integrity of the land and surrounding areas.

60. Establishment of Water Resources, Watershed and Wetlands Management Committee

(1) The Minister, in consultation with the Ministers responsible for Public Utilities, the Fisheries Division and the Forestry Division, shall establish a Water Resource, Watershed and Wetlands Management Committee (hereinafter called the Committee) for the management of water resources, protected watersheds and wetlands.

(2) The Committee shall be chaired by the Director or a Deputy Director and shall consist of-

- (a) the Director of Agriculture;
- (b) a forest officer;
- (c) a fisheries officer;
- (d) a representative from each of the Antigua Public Utilities Authority, Lands Division of the Ministry of Agriculture, and the Pesticides and Toxic Chemicals Control Board;

- (e) such other local residence of lands within the watershed appointed by the Minister in consultation with the Minister with responsibility for public utilities upon the recommendation of the Director or Deputy Director; and
- (f) a representative of the National Parks Authority where the watershed is located in a National Park.

(3) The Committee may make recommendations to the Minister on any matter relating to the adoption and the implementation of any watershed or wetland management plan, including, any proposed revisions of such plan and on any other related matter.

61. Declaration of Protected watersheds

(1) The watersheds listed in Schedule V are declared for the purposes of this Act, to be protected watersheds.

(2) The Minister, in consultation with the Minister with responsibility for Public Utilities, may propose that any watershed or part of a watershed be added to the list of watersheds in Schedule V, where he or she is of the view that such watershed should be protected and require management for any of the following purposes—

- (a) protection against storms, winds, rolling stones, floods and landslides;
- (b) prevention of soil erosion and landslip, formation of ravines and torrents, and deposit of mud, stones and sand upon agricultural land;
- (c) maintenance of water supplies in springs, rivers, canals and reservoirs;
- (d) protection of topography and vegetative cover;
- (e) protection from free roaming livestock and invasive alien species

(3) A proposal formulated under this section shall include—

- (a) a description of the water resources, watershed or wetland, including size, vegetative cover and boundaries and details as to land ownership;
- (b) a statement of the reasons for considering that the watershed requires particular protection.

(4) The Department shall solicit comments regarding any proposal under this section and for this purpose shall—

- (a) publish the proposal in the Gazette and at least one daily newspaper of general circulation and broadcast media, inviting interested persons to submit comments within a specified period of time;
- (b) send a copy of the proposal to the Committee and the relevant Government Departments;
- (c) make copies of the proposal available at the Environment Registry to anybody who may request them.

(5) After a period of not less than two months from publication of the proposal in accordance with this section, the Department shall organise at least one public meeting to discuss the proposal and the Minister, in consultation with the Minister with responsibility for public utilities, shall take into consideration any comments which have been received and may revise the proposal as appropriate.

62. Declaration of important wetlands

(1) The Minister, in consultation with the Minister with responsibility for Fisheries, may propose that any wetland or part of a wetland be added to the list of important wetlands in Schedule VI, where such wetlands are protected and require management for any of the following purposes—

- (a) floodwater storage;
- (b) erosion control and improved water quality of critical fresh or salt water catchments;
- (c) habitat for wildlife; and
- (d) food chain support.

(2) A proposal under this section shall include—

- (a) a description of the wetland, including size and boundaries and details as to land ownership; and
- (b) a statement of the reasons for considering that wetland to require particular protection

(3) The Director shall solicit comments regarding any proposal under this section and for this purpose shall—

- (a) publish the proposal in the Gazette and at least one daily newspaper of national circulation and broadcast media, inviting interested persons to submit comments within a specified period of time;
- (b) send a copy of the proposal to the Council and the relevant Government Departments and make copies of the proposal available at the environment registry to anybody who may request them.

(4) The Director shall organise at least one public meeting to discuss the proposal and the Minister, in consultation with the Minister responsible for fisheries, shall take into consideration any comments which have been received, revise the proposal as appropriate and may by Proclamation declare the wetland accordingly.

63. Conservation enforcement notice

(1) The Minister with responsibility for lands may, in collaboration with the Director issue a conservation enforcement notice and have it served on any individual or body corporate, Ministry, Government department, statutory body or other person if it appears that a condition in a lease agreement with respect to conservation or protection of soil or water or agricultural resources is being violated.

(2) A notice under subsection (1) may require a government ministry, statutory body, appropriate authority or person to, within a specified period—

- (a) ensure that the conservation conditions set out in the terms of the agreement are not being violated;
- (b) provide conservation management plans, specifications and any other information that may be required with respect to enhancing and maintaining the quality of soil, or water or agricultural resources; or
- (c) maintain or adopt particular agriculture methods or undertake remediation activities that are likely to facilitate the conservation, enhancement or protection of soil, or water or agricultural resources.

(3) The Minister may request the assistance of the relevant authority to take the action set out in the notice where the Minister is of the view that the Ministry, Department, statutory body or person served with the notice, has not, within the specified period—

- (a) fulfilled the requirement in the notice; or
- (b) presented an operational plan indicating how the requirements will be undertaken.

(4) Any costs incurred in giving effect to a notice served pursuant to the provisions of subsection (1) shall be levied against the responsible Ministry, Department, statutory body or person responsible.

64. Conservation of resources in accordance with Plan

(1) A person shall, in undertaking any activity connected with soil, agriculture, water, energy or mineral resources, ensure that the activity is at all times in accordance with the provisions of the Environment Resource Management Plan developed for the management of the particular natural resource.

(2) Schedule VII outlines basic criteria and guidelines for water quality management.

(3) Schedule VIII outlines basic criteria for air quality management.

C. International Trade in Wild Fauna and Flora

65. Protected wildlife

(1) For the purposes of this part, “specimen” means –

- (a) any animal or plant, whether alive or dead of a specimen of a species included in Appendices I, II and III of CITES; or
- (b) any part or derivative which appears from an accompanying document, the packaging or a mark or label or from any other circumstances to be a part or derivative of an animal or plant of species included in Appendices I, II or III unless such part or derivative is specifically exempted from the provisions of CITES.

(2) The fauna and flora specified in Schedule IX are hereby declared to be protected wildlife and shall be dealt with in accordance with the provisions of this Act.

(3) The endangered fauna and flora specified in the Appendices I, II and III of CITES are protected in accordance with the provisions of this section and shall be dealt with in accordance with the provisions of CITES and this Act.

(4) The Minister shall by Order –

- (a) publish in the official *Gazette* a schedule detailing the Appendices I, II and III of CITES as soon as possible after the commencement of this Act;

- (b) published in the official *Gazette*, amend the Appendices I, II or III when amendments to Appendices I, II or III of CITES enter into force for Antigua and Barbuda.

(5) The CITES Management Authority may add or delete any species from Appendix III when the species occurs within the national jurisdiction of Antigua and Barbuda.

66. Designation of CITES Management Authority

The Department of Environment is hereby designated the **CITES** Management Authority.

67. Functions of the CITES Management Authority

(1) The CITES Management Authority shall –

- (a) be the focal point for communication with the CITES Secretariat of information on scientific, administrative, enforcement and other matters related to the implementation of the CITES Convention;
- (b) be the primary advisory body to the Minister on matters pertaining to CITES under this Act.

(2) Notwithstanding subsection (1), the CITES Management Authority shall –

- (a) issue CITES permits and certificates;
- (b) maintain the National CITES Clearinghouse and a central registry of all CITES permits and certificates that have been issued;
- (c) issue devices for the identification of any endangered species in the country;
- (d) issue labels for the trade of endangered species between scientists or scientific institutions;
- (e) register specimens of endangered species in the country;
- (f) prepare annual reports on the trade in endangered species in Antigua and Barbuda;
- (g) prepare biennial reports on the legislative, regulatory and administrative measures taken to enforce CITES and submit this report to the CITES Secretariat by the 31st October of the year following the two-year period to which the report refers;

- (h) supervise the confiscation, disposal or return to the State of export of any specimen of endangered species that has been imported to Antigua and Barbuda in violation of the CITES Convention;
- (i) consult with the Scientific Authorities designated in section 69 on the issuance and acceptance of CITES documents, the nature and level of trade in CITES-listed species, the setting and management of quotas, the registration of traders and production operations, the establishment of Rescue Centres and the preparation of proposals to the Minister to amend the CITES appendices listed in Schedule IX;
- (j) designate one or more Rescue Centres for seized and confiscated living specimens;
- (k) ensure that appropriate measures are undertaken to ensure that any trade in live animal endangered species is conducted in such a manner so as to avoid any cruel treatment of such animal;

68. Designation of CITES Scientific Authority

(1) The following agencies are designated as CITES Scientific Authorities-

- (a) the Department of Plant Protection;
- (b) the Department responsible for Fisheries; and
- (c) the Department of Forestry;

(2) The Department of Plant Protection shall be the lead CITES Scientific Authority

(3) The Minister may in collaboration with the Minister with responsibility for any other Ministry, agency or statutory body, designate by notice published in the Gazette, such other Ministry, agency or statutory body to be a Scientific Authority.

69. Functions of CITES Scientific Authority

(1) The CITES Scientific Authority shall –

- (a) advise the CITES Management Authority on whether or not proposed export or import of a species listed in Appendix I or II of CITES will more than likely be detrimental to the survival of the species involved;
- (b) advise the Management Authority on whether or not the recipient of a proposed import of a live specimen of a species listed in Appendix I is suitably equipped to house and care for it;

- (c) advise the Management Authority on the disposal of confiscated or forfeited specimens;
- (d) conduct research concerning species of fauna and flora that are, or are likely to become, threatened in Antigua and Barbuda;
- (e) collate and disseminate information relating to the trade in endangered, threatened or exploited species of fauna and flora.
- (f) monitor the export permits granted for specimens of species listed in Appendix II, as well as the actual exports of such specimens, and advise the Management Authority of suitable measures to be taken to limit the issue of export permits when the population status of a species so requires.

(3) Notwithstanding section 68, the Department shall function as the Secretariat for all CITES Authority and shall be responsible for receiving all applications for permits, permits and other matters relating to CITES.

70. Importation, sale, etc. Of foreign organisms

(1) For the purposes of this section “foreign organism” means—

- (a) any active, infectious, or dormant stage of life form, including bacteria, fungi, mycoplasmas like organisms, entities such as viroids or viruses, and any entity related to the foregoing;
- (b) any stage of life form capable of being used for genetic manipulation, or which has resulted from genetic manipulation; and
- (c) prions or any other infectious agents originating from outside of Antigua and Barbuda;

but does not include an animal as defined in section 2 of the Animals (International Movement and Diseases) Act, Cap. 19, or a plant, plant material or plant pests as defined in section 2 of the Plant Protection Act 2012, N0. 18 of 2012.

(2) A person who wishes to sell, offer for sale, transport or store a foreign organism shall obtain a permit to do so pursuant to the provisions of this section.

(3) A person who wishes to import a foreign organism or to transport, store, use or sell a foreign organism shall make an application to the Minister responsible for agriculture, in the form set out in Form 3 of Schedule XI.

(4) An application under subsection (3) shall be accompanied by the prescribed fee.

(5) On receipt of an application, and upon payment of the prescribed application fee, the Minister with responsibility for agriculture, shall—

- (a) consult with the Department, the Ministry responsible for health, the Department of Customs and the Department of Forestry, and any other Government Ministries, agency or statutory body whose mandate would be affected by the issuance of a permit;
- (b) publish a public notice of the application on two separate occasions in a daily newspaper of general circulation in Antigua and Barbuda and provide—
 - (i) a description of the nature of the application, including the type of foreign organism sought to be imported;
 - (ii) a description of the likely impact to human health or to ecosystems in Antigua and Barbuda that is likely to result from the importation of the foreign organism;

6. a description of the environment monitoring or management plans to be established;

- (iv) that submissions with respect to the subject-matter of the application may be made in writing by any person;
 - (v) the closing date for submissions, which must not be earlier than thirty days after public notice; and
 - (vi) the address where submissions are to be sent; and
- (c) lodge a copy of the notice referred to in paragraph (b) in the Environment Registry.

(6) The Minister with responsibility for agriculture shall, after a review of the submissions made under subsection (5) (a) and on being satisfied that the movement of the organism is being done in conformity with the requisite standard set by the Cartagena Protocol on Bio-safety to the Convention on Biological Diversity, issue a permit, with or without conditions, for the exportation or importation, transport, storage, use or sale of the foreign organism.

(7) In making a decision, the Minister may consider the results of an environmental impact assessment.

(8) A permit issued for the exportation or importation, transport, storage, use or sale of a foreign organism shall satisfy the requirements of section 79.

(9) A person who contravenes any of the provisions of this section commits an offence and shall be liable on conviction to the penalties prescribed under paragraph (c) of Schedule X.

71. Importation, exportation, trade and re-importation from the sea of endangered species

(1) A person shall not import, export, trade, or re-import from the sea, a specimen of an endangered species of flora or fauna specified in Appendices I, II or III of CITES except as provided under this Section.

(2) A person who wishes to import, export, trade, or re-import from the sea, any endangered species of flora or fauna specified in Appendices I, II or III of CITES shall make an application to the Minister in Form 5 set out in Schedule XI accompanied by the prescribed application fee.

(3) The Minister shall, on receipt of an application, refer the matter to the Director, who shall seek the advice of the CITES Scientific Authority.

(4) Where the Minister is of the opinion, based on the advice received from the Director, that the import, export, trade, or re-import from the sea, of a particular specimen would be detrimental to the survival of the species, the Minister shall not issue a permit.

(5) Subject to section 98 where the Minister is satisfied, based on the advice received from the Director, that the trade in the specimen would not be detrimental to the survival of the species, and that—

- (a) the specimen was not obtained in contravention of any laws for the protection or conservation of fauna or flora of Antigua and Barbuda or of the State in which it was obtained;
- (b) any permit required has been granted for the specimen by the State from which, or to which, the specimen originates or is to be conveyed; and
- (c) any living specimen will be prepared and shipped and, in the case of importation, cared for once in Antigua and Barbuda, in such a manner as to minimise the risk of injury, damage to health, or cruel treatment.

The Minister shall issue a permit in the manner set out in Form 6 of Schedule XI, subject to such conditions as the Minister deems necessary to protect the species.

(6) A person who –

- (a) knowingly submits an application that contains false or misleading information;
- (b) contravenes this section; or
- (c) contravenes the terms on which a permit was issued

commits an offence and on conviction shall be liable to the penalties established in paragraph (b) of Schedule X.

72. General conditions as to permits

(1) A permit issued under this Part authorises the holder of the permit to undertake with the time specified in the permit, the type of trade to which the permit relates, and only in relation to the specimen or specimens of endangered species specified in the permit or certificate.

(2) A permit shall be valid for the period specified therein and shall expire on the date specified therein which shall not be more than six months after the date it was issued, unless it was sooner revoked or surrendered.

(3) A permit shall not be valid unless it –

- (a) is in the prescribed form;
- (b) bears the signature of the Minister;
- (c) bears the seal of the CITES Management Authority;
- (d) has a verifiable sequential numbering from the issuing Authority;
- (e) is lodged on the Environment Registry.

(4) A permit shall not be transferable.

(5) A holder of a permit shall produce such permit on demand to a Customs Officer or other Government official.

(6) A person who fails to comply with this section commits an offence and shall be liable to the penalties established in paragraph (c) of

73. Obligation to declare specimen

(1) A person in possession of a specimen of an endangered species as part of his personal effects or baggage, shall, on arrival in or departure from Antigua and Barbuda, declare such possession to the Customs or Quarantine Officer on duty at the port of entry or exit, and shall-

- (a) permit the officer to inspect and examine the specimen;
- (b) afford assistance to the officer in carrying out the inspection; and
- (c) produce the relevant permit in respect of the specimen.

(2) The Customs or Quarantine officer shall, if the officer believes on reasonable grounds that a person is in possession of a specimen without a valid permit, order the person to surrender the specimen to such officer.

(3) A person who does not comply with subsection (1), or an officer's order under subsection (2), commits an offence and on conviction shall be liable to the penalties established in paragraph (c) of Schedule X.

74. Detention of endangered or protected species

(1) An environmental officer, park warden, customs officer, quarantine officer or other Government official who finds a specimen of an endangered species or protected wildlife in the possession of any person, whilst in the course of carrying out their duties shall detain such person and specimen and shall convey such information in relation to the detention, immediately to the Director for action.

(2) Where the Director has been made aware of a detention under subsection (1), he or she shall make an application to the courts for an order to remove the specimen and any corresponding item from the possession of the accused person.

(3) Where an order has been issued under subsection (2), the Director shall ensure that the specimen is properly cared for and housed in a manner so as to minimise the risk of injury, damage to health or cruel treatment.

(4) Where the specimen in possession of the Director was illegally obtained by the person, the Director may, after consultation with the State where the specimen was obtained, return the specimen at the expense of the State.

(5) Where the owner of a specimen that has been seized under this Act cannot be determined or cannot be found, or the specimen is perishable, the Director may dispose of the specimen.

(6) The owner or the person in possession of a specimen that has been detained, shall bear the costs and expenses of disposal, housing, safe-keeping, or re-export of the specimen, and no compensation is payable in respect of such specimen.

75. Return of species

(1) In the prosecution of an offence of unlawful possession of an endangered species, the burden of proving lawful possession and lawful acquisition of the specimen lies with the party against whom the proceedings have been brought.

(2) A specimen that comes into the possession of an officer under this Part shall be immediately conveyed to the Director for safekeeping, disposal or presentation to the appropriate authority.

(3) Where it is determined that the specimen is not an endangered species or a protected wild plant or animal, the officer in possession of the specimen shall immediately return it to the person from whom it was taken.

PART IX ACCESS TO GENETIC RESOURCES AND THE SHARING OF BENEFITS

76. Sovereign Rights over Biodiversity

The Government of Antigua and Barbuda exercises sovereign rights over the genetic resources existing in the country for the benefit of present and future generations. It is the duty of the state to regulate the access to biological resources as well as related use of community knowledge and technologies. The Government also recognises the need to promote and support the traditional and indigenous technologies that are important in the conservation and sustainable use of genetic resources and to complement them by modern technologies so as to ensure the implementation of the relevant provisions of the Convention on Biological Diversity, in particular Article 15 on access to genetic resources and Article 8(j) on the preservation and maintenance of knowledge, innovations and practices of indigenous and local communities.

77. Interpretation

In this section –

“access to genetic resources” means *in situ* and *ex situ* acquisition of the genetic resources originating in Antigua and Barbuda and its related use and technologies either by direct or indirect means for research or commercial use.

78. Application of this Part

(1) This Part applies to genetic resources and related knowledge and technologies, their derivatives existing in the jurisdiction of Antigua and Barbuda both in-situ and ex-situ, as well as, to the use of genetic resources of any origin where the use takes place within Antigua and Barbuda.

(2) Nothing in this Part shall affect the traditional use and exchange of biological resources as well as related knowledge and technologies carried out by and between local communities based upon their customary practices.

79. Guidance for Access and Benefit Sharing of genetic resources

Access to genetic resources and related community knowledge and technologies shall be guided by the following principles—

- (a) Research and development on genetic resources shall be carried out, in so far as possible, within the country, unless found impossible to do so.
- (b) When there are competing requests for access to genetic resources, priority shall be given to the applicant who undertakes to conduct the research and development within Antigua and Barbuda.
- (c) Access to genetic resources shall be based upon mutually agreed terms and subject to the procedure outlined in this Part.

80. Application for Access to Genetic Resources

(1) An application or access to genetic resources shall be made in writing to the Department which is hereby designated the Competent National Authority and focal point for matters relating to access to genetic resources and the sharing of benefits, as well as, the Access and Benefit-Sharing Clearing House of Antigua and Barbuda.

(2) The application shall contain, at a minimum, the following information –

- (a) the name, address and other documentation and essential identifying information of the person or entity that will be responsible for ensuring that the terms of any permit received is properly complied with, that benefit sharing payments or activities are properly completed, that all payments, whether compensation or penalties or guaranties are paid in the event of any violation or breach;

- (b) proof of the applicant's ability to gather and or undertake the research in a manner that maintains, contributes to or promote the biodiversity and sustainable use of the genetic resource;
- (c) specific description of the particular resource (whether biological resources or associated traditional knowledge) to which access is being sought;
- (d) the methodologies of collecting samples, conducting research and or commercial development, including for
 - (i) identification of collection sites located on private property and evidence of consent from property owners or proposed methodology for obtaining consent, with agreement not to collect without permission;
 - (ii) identification of collection sites located in protected areas and other Government property and process for collecting samples in those areas, including documentation of any required authorization or permits;
 - (iii) identification of particular in situ collections or other sources of biological resources, and determination of how collection through those sources shall be coordinated with this permit requirement;
 - (iv) identification of local and indigenous communities, that hold particular biological resources and/or particular community knowledge and technology that will be access under the requested permit;
 - (v) transport and removal of resources including obtaining other national permits including fishing/marine collection permits and export certificates from the appropriate authority;and
 - (vi) measures and plans for monitoring methodology including regular internal evaluation and motoring of activities undertaken in compliance with the permit, if obtained and receiving, responding to, and complying wit the results of Antigua and Barbuda's evaluation and monitoring of activities under the permit, if obtained.
- (e) the reason for seeking access to the genetic resource;
- (f) any risk or potential risk to the biodiversity and sustainability of the genetic resource and to other resources, if access is granted;

- (g) any risk or potential risk to the environment if access to the genetic resource is granted;
- (h) the purpose for which access to the genetic resource is requested including, where appropriate, the type and extent of commercial use expected to be derived from the resource;
- (i) description of the manner and extent of intended involvement of Antigua and Barbuda including local and indigenous communities, in the necessary research and development of the genetic resource concerned;
- (j) the identification of the national scientific counterpart institution which will participate in the research or that will monitor the process of collecting the genetic resource;
- (k) the proposed area, or if known, the precise location, where research and development activities will be carried out including:
 - (i) collection, whether they involve wild collection or obtaining resources in other ways and specifying the geographic location where the resources are located and development activities will be carried out
 - (ii) research, the types of research to be conducted and whether all or part of it will be undertaken in Antigua and Barbuda
 - (iii) commercial development or transfer, whether there is a possibility that the applicant will undertake commercial development based on the research or will enter into agreements with some other person or entity for that purpose.
- (l) specific anticipated monetary and non-monetary benefits (economic, technical, biotechnological, scientific, environmental, social or otherwise) to be shared, including proposals for how they shall be shared and with what agency institution, community or individual that may derive to Antigua and Barbuda;
- (m) presentation of an environmental impact assessment where it is required;
- (n) Any other information requested by the Department.

(3) The application must be accompanied by supporting documentation and payment of the prescribed fee.

(4) Upon receipt of the application, the Department shall –

- (a) send a copy of the application to the Ministry of Agriculture, the Plant Protection Unit, the Forestry Department, the Fisheries Department, Veterinary Divisions, the

Ministry of Legal Affairs and the Antigua and Barbuda Department of Marine Services, National Parks, as applicable; and

- (b) lodge a copy of the application in the Environment Registry for a period of three months where it may be consulted by any person.

(5) The Department shall communicate its decision on the application within six months of the date of the application.

(6) Where the application is approved, the Department shall invite the applicant to sign the Access and Benefit Sharing Agreement between the Applicant and the Government of Antigua and Barbuda.

(7) Prior to taking any action pursuant to the permit, the applicant must appear in person at the Department of Environment to receive a letter indicating that the bearer and his designees have permission to collect samples in the field, subject to the contents of the permit and conditional on adherence to the Access and Benefit Sharing Agreement.

- (a) The letter to collect does not constitute prior informed consent for access to biological resources or associated traditional knowledge and does not authorise research or investigation of genetic properties of any biological resources or the removal of any biological resources from Antigua and Barbuda.
- (b) The letter to collect will specify the methodology for collection, the procedures for monitoring and reporting on collection, the required conditions on collection including the measures for mitigating risk and any additional requirements recommended by the Department.
- (c) The letter to collect may only be issued following the signing of an Access and Benefit Sharing Agreement.

(8) Where the application is denied, the Department shall give reasons for denying the application.

(9) The decision of the Department to deny or approve an application for access, or a decision to cancel or modify an Access and Benefit Sharing Agreement may be appealed through the measures established under section 99 of this Act.

(10) Following any inspection of the samples in accordance with requirements from the appropriate authority and after an Access and Benefit Sharing Agreement has been signed, the Department will issue the final ABS Permit.

(11) The permit will reflect and incorporate all of the information provided by the applicant during the application process, as well as any alterations or conditions required or agreed to.

(12) The permit will be issued to the applicant named on the application form. The permit shall be non-transferable.

(13) The permit shall specify the particular responsible office, and the manner by which all communications or notifications under the permit shall be made to that office

(14) The CNA shall submit the final permit – excluding any confidential information to the ABS Clearing House and the Environment Registry.

(15) The Department shall develop a procedure by which a permit holder may request a revision of their permit in the event of any change in plans, situation or other matters including but not limited to risks to the conservation status of any species or ecosystem or other risks to local or indigenous communities or residents. Such request shall be considered by the agencies identified in Section 80 (4) (a).

81. Basis for denial of application

The Department may deny an application –

- (a) that is incomplete;
- (b) that does not have the necessary supporting documentation attached;
- (c) where the proposed activities pose a level of risk that the Department believes is unacceptable to any biological resource or ecosystem with particular attention to resources that are endangered or are particularly susceptible to adverse effects from the method of collection;
- (d) that does not satisfy the Department of the Applicant's ability to gather the biological resource in a manner that maintains or promote the biodiversity and sustainable use of the biological resource;
- (d) where the proposed activities threaten the integrity of the natural or cultural patrimony of communities of Antigua and Barbuda;
- (e) where the proposed activities and benefit-sharing as described in the application appear to provide no exclusive benefit to Antigua and Barbuda; or
- (f) that fails to satisfy the Department that the applicant is financially able to assure compliance with the permit or to take financial responsibility in the event of

violations or harm to species or the environment in the course of implementing the permit.

82. Access and Benefit Sharing Agreement

(1) The Access and Benefit-Sharing Agreement shall be a binding legal document.

(2) The Access and Benefit Sharing Agreement shall contain the following minimum requirements –

- (a) a limit on the sizes of the samples that the applicant may obtain and / or export;
- (b) guarantee of a deposit of duplicates of all specimens collected with a duly designated government Institution;
- (c) a legal agreement by the applicant to inform the Department and, where appropriate, the concerned local community of all findings from the research and development on the resource material, if a commercial use is derived from such activity;
- (d) a commitment by the applicant not to transfer the acquired resources to any other party without the authorisation of the Department;
- (e) provisions for the annual payment of royalties and other financial benefits to the Government of Antigua and Barbuda amounting to not less than twenty percent of the total value of the resources extracted from the country or thirty percent of the value of the product or commercial use derived from the biological resources taken;
- (f) submission of a regular status report of research and development on the resources concerned; and
- (g) commitment to abide by the laws of Antigua and Barbuda particularly those regarding sanitary control, bio-safety and the protection of the environment, as well as the cultural practices, traditional values and customs of the local community.
- (h) a commitment by the Parties to resolve any dispute regarding the terms and conditions of the Access and Benefit Sharing Agreement by arbitration in accordance with the laws of Antigua and Barbuda.

(3) Access to genetic resources shall not be granted to any applicant, corporate or other entity until the Access and Benefit Sharing Agreement has been duly executed by the Applicant and a permit authorising access to the genetic resource is duly issued by the Department.

(4) The Department shall ensure that there is a commitment on the part of the State in whose jurisdiction the collector operates to provide that biological resources utilised within its jurisdiction have been accessed in accordance with prior informed consent and that mutually agreed terms have been established, and to take measures to address situation of non-compliance.

(5) The Department may unilaterally, or on the recommendation of an appropriate Government authority, withdraw its consent to access and terminate the Access and Benefit Sharing Agreement or discontinue further research on or use of a biological resource where it has become apparent that the applicant has violated any of the mutually agreed terms, or where the overriding public interest so demands.

(6) Any claims upon biological resources obtained or used in violation of the provisions of this Part shall not be recognised and the certificate of intellectual property or similar certificates and license upon such resources or products and processes resulting from access shall not be valid.

(7) The Department may, when it deems it necessary, establish restrictions or prohibitions on those activities which are directly or indirectly related to access to or introduction of biological resources, particularly in case of—

- (a) endangered taxa;
- (b) endemism;
- (c) adverse effects upon human health or upon the quality of life or the cultural values of the local communities;
- (d) environmental impacts which are undesirable or difficult to control;
- (e) danger of genetic erosion or loss of ecosystems, their resource or their components, because of undue or uncontrolled collection of germ-plasm;
- (f) non-compliance with rules on bio-safety or food's security; and
- (g) use of resources for purposes contrary to national interest and to relevant international
- (h) agreements entered into by the country.

83. Penalty and sanctions

(1) A person or entity that contravenes any of the requirements of this Part shall be liable to a sanction together with a financial penalty to be determined by the value gained by the person or entity that accessed the genetic resources of Antigua and Barbuda or the loss to Antigua and Barbuda in terms of biodiversity and the sustainability of the genetic resource, whichever is greater.

(2) Without prejudice to the provisions of subsection (1) sanctions and penalties to be provided may include—

- (a) written warning;
- (d) confiscation of collected biological and genetic specimens and equipment;
- (c) perpetual ban from access to biological resources in Antigua and Barbuda.

(3) Any violation committed under this Part shall be publicised in the national and international media and shall be reported by the Director to the secretariats of the relevant international governments and regional bodies.

PART X ENVIRONMENTAL INFORMATION

84. Environmental Information Management and Advisory System (EIMAS)

(1) The Department shall establish and maintain an Environmental Information Management and Advisory System (EIMAS) for the purpose of establishing and maintaining information resources in a centralised manner.

(2) The information in the EIMAS System shall be kept in such manner as the Director thinks fit.

(3) Every Ministry, statutory body and other agency of government shall provide such technical assistance and information pertaining to the EIMAS as may be requested Geographic Information Systems (GIS) Unit.

85. Geographic Information Systems (GIS) Unit

(1) The Director in consultation with the appropriate authorities shall establish a Geographic Information Systems Unit (GIS Unit.)

(2) The GIS Unit shall undertake the following functions—

- (a) the creation and maintenance of the Natural Resources Inventory;
- (b) the provision of information for the management of natural resources;
- (c) the production of public information materials relating to resource management issues; and
- (d) liaison with the public, business community, and non-Governmental organisations in relation to resource management issues.

(3) In furtherance of the functions set out in subsections (2), the GIS Unit may—

- (a) carry-out surveys, inspections, and collate geographic and natural resource information; and;
- (b) collect, store, manage and disseminate information.

86. Natural Resources Inventory

(1) The Natural Resources Inventory created by the GIS Unit for the EIMAS shall contain information concerning the natural resources of Antigua and Barbuda, including—

- (a) geographic and topographic features;
- (b) soil types and geological formations including known mineral deposits;
- (c) ecological systems and classifications, including—
 - (i) locations of nationally significant flora and fauna;
 - (ii) locations of endangered species of flora or fauna, threatened ecological habitats, and biodiversity reserves;

6. surface water catchment areas and sub-surface water reserves;

- (iv) marine and coastal resources including coral formations, sea grass beds, mangrove areas, sand deposits, tidal estuaries, fish breeding areas and aquaculture areas;
- (v) forestry resources, including forest types and densities;

- (vi) agriculture resources and activities, including, where appropriate, crop varieties, rotational routines, animal husbandry areas, and land tenure systems;
- (d) cultural, archaeological and historic sites;
- (e) human activities, including population centres, industrial and commercial centres, settlement patterns, communication corridors, educational and social support services and infrastructure, and public works including electricity networks, waste management sites, sewage and potable water networks;
- (f) a coastal sensitivity atlas to facilitate oil spill and disaster response and beach management options;
- (g) economic development activities and infrastructure, including tourism developments, mines and quarries;
- (h) a list of the research and development activities involving the biological resources of the country; and
- (i) measures towards the repatriation of information on the country's traditional knowledge and technologies related to biological diversity.

(2) The Natural Resource Inventory is to be presented on an information storage and retrieval system to facilitate—

- (a) public access;
- (b) consultation on resource use priorities during the environmental impact assessment process, and;
- (c) for other purposes.

87. Environment Registry

(1) The Department shall, in collaboration with such appropriate authorities, establish and operate an Environment Registry for –

- (a) administering the information on the environment;
- (b) providing assistance to the Department for monitoring, compliance, reporting and notification requirements under multilateral environmental agreements to which Antigua and Barbuda is a party;

- (c) depositing information relating to CITES and access to genetic resources;
- (d) any other purpose in accordance with the requirements of this Act;

(2) The Environment Registry shall contain all documents produced, collected or submitted to the Department, with respect to—

- (a) the import, export, transportation, disposal and management of any hazardous substance or waste;
- (b) hazardous substances, permits or licences issued pursuant to this Act;
- (c) environmental impact assessments;
- (d) the dumping of wastes or other matter;
- (e) the import, export, storage or transportation of endangered species of flora and fauna;
- (f) the administration of permit requirements under the Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES Convention);
- (g) the issuance of permits and licences under this Act or regulations made thereunder;
- (h) any enforcement proceedings undertaken under this Act
- (i) any other matter that may be prescribed by Regulations made under this Act.

(3) In addition to the requirements under subsection (2), the Registry shall contain a list of—

- (a) qualified and accredited environmental consultants, environmental mediators, environmental laboratories;
- (b) current guidelines and codes of practice in environmental matters; and
- (c) copies of all public notices required under this Act.

(4) Every Ministry, Department or statutory authority shall provide any information that may be requested by the Department for inclusion in the Registry.

88. Public access to environment registry

(1) Subject to subsection (2), a person may, during normal working hours, attend the Environment Registry maintained by the Department and on payment of a prescribed fee —

- (a) inspect the register; or
- (b) obtain from the Department a certified copy of a portion of the register.

(2) A person shall not have access to a document contained in the registry

- (a) if the Director determines that disclosure of the information would be contrary to the national interest, or;
- (b) if, subject to section 14(2), the information is subject to a trade secret or confidentiality claim.

(3) The Director shall provide a written explanation of any refusal to make information available under this section when requested by a person.

89. State of the Environment Report

(1) No later than three months after the end of every calendar year, the Director shall prepare and submit to the Minister a report including —

- (a) an assessment of the state of the environment, with particular reference to any significant events or changes occurring during the year under review;
- (b) a description of the activities of the Department during the year under review, including an assessment of the effectiveness of coordination between the Department and other Ministries, Government agencies and statutory authorities to which environmental management functions and duties have been allocated pursuant to this Act; and
- (c) a list of any other reports prepared by the Department or any other appropriate authority pursuant to this Act.

(2) The Minister must cause a copy of every such annual report of the Department to be laid in Parliament and made available to the public on the payment of a prescribed fee.

PART XI
MULTILATERAL ENVIRONMENTAL AGREEMENTS

90. Negotiation and accession to multilateral environmental agreements

The Minister shall ensure that Antigua and Barbuda—

- (a) collaborates with other Member States of the Organisation of Eastern Caribbean States and the Caribbean Community to develop and strengthen sub-regional and regional negotiating mechanisms for multilateral environmental agreements;
- (b) cooperates with other Member States of the Organisation of Eastern Caribbean States and the Caribbean Community to enable, as far as practicable a common political position in the negotiation and implementation of multilateral environmental agreements;
- (c) integrates international principles on climate change and development into the negotiation and implementation of multilateral environmental agreements;
- (d) establishes appropriate mechanisms to facilitate the exchange of information relating to the negotiation and implementation of, and compliance with multilateral environmental agreements.

PART XII
SUSTAINABLE ISLAND RESOURCES FRAMEWORK FUND

91. Establishment of the Sustainable Island Resources Framework Fund (SIRF Fund)

(1) There is hereby established a Special Fund pursuant to section 42(1)(a) of the Finance Administration Act 2006 to be known as the Sustainable Island Resources Framework Fund.

(2) The Fund shall be administered in accordance with the provisions of this Act.

92. Purpose of the Fund

The purpose of the Sustainable Island Resources Framework Fund ('SIRF Fund') is to serve as a financing mechanism –

- (1) for the implementation in Antigua and Barbuda of Multilateral Environmental Agreements;
- (2) to support the implementation of regional environmental projects undertaken:
 - (a) in collaboration with; or

(b) for and on behalf of;

Member States of the Organisation of Eastern Caribbean States pursuant to the requirements of any Multilateral Environmental Agreements; and

(3) to build ecosystem resilience to the impacts of climate change;

(4) to support programmes and measures for climate change adaptation, climate change mitigation, climate change loss and damage;

(5) to give financial support to vulnerable groups and communities for disaster preparedness, disaster recovery and rehabilitation;

(6) to assist with the management and expansion of protected areas and for the conservation, protection, and maintenance of biodiversity under the Convention on Biological Diversity.

93. Functions of the Fund

The functions of the Fund are to:

- (a) support activities for the implementation of the National Environmental Policy Framework;
- (b) support programmes and measures for climate change adaptation, climate change mitigation and climate change loss and damage;
- (c) support the development of programmes for the establishment or management of any area required for biodiversity conservation under the Convention on Biological Diversity, or the protection of any carbon sinks that may be designated for the purpose of giving effect to the United Nations Framework Convention on Climate Change or any other Multilateral Environmental Agreement;
- (d) establish measures for the long-term management and expansion of any system of protected areas and other activities that contribute substantially to the conservation, protection and maintenance of biodiversity under the Convention on Biological Diversity, including areas declared as ecotourism areas under this Act and any system of protected areas established in Antigua and Barbuda including marine protected areas;
- (e) support necessary and recurrent expenses incurred in the negotiation, monitoring or auditing of any code of environmental practice, including the retention of technical experts, the investigation or analysis of any matter and the undertaking of

any environment monitoring or audit programme required to implement the Multilateral Environmental Agreements;

- (f) ensure that the necessary expenses incurred in the formulation of reports required under the Multilateral Environmental Agreements are provided;
- (g) give support to scientific research programs related to the implementation of the Multilateral Environmental Agreements;
- (h) establish and administer the governance, fiduciary management and administrative arrangements to finance activities of the Department in furtherance of requirements under the Multilateral Environmental Agreements;
- (i) raise public knowledge, appreciation and understanding of Multilateral Environmental Agreements and of various environmental impacts on the well being of ecosystems, plants and animals in Antigua and Barbuda and beyond;
- (j) support actions to build ecosystem resilience to the impacts of climate change;
- (k) provide support to reduce the vulnerability of the most vulnerable groups during periods of disaster response, recovery and rehabilitation, and for disaster relief to vulnerable groups, communities and sectors when the Fund considers it appropriate to do so; and
- (l) do or cause to be done such other things as the Fund considers expedient or necessary to fulfil its objectives under the Act.

94. Governing body of the Fund

(1) There is hereby established a Board to be known as the SIRF Fund Board which shall be the governing body of the Fund.

(2) The SIRF Fund Board shall comprise of the following persons:

- (a) the Financial Secretary (ex officio) who shall be the chairperson;
- (b) the Director of the Department of Environment (ex officio);
- (c) the Budget Director (ex officio);
- (d) the Permanent Secretary for the Ministry with responsibility for the environment (ex officio), who shall be the deputy chairperson;

(e) the Chief Town and Country Planner (ex officio).

(3) The decisions of the Board SIRF Fund Board shall be by a majority of the members present and voting.

(4) Three members of the SIRF Fund Board shall form a quorum for the purpose of conducting the business of its meetings, but no quorum shall be validly constituted unless the Financial Secretary or the Budget Director is one of the three members present.

(5) The Cabinet shall appoint an Executive Secretary to the SIRF Fund Board who shall be the Chief Administrative Officer and who, subject to the general directions of the SIRF Fund Board, shall be responsible for the direction of the staff and for the management of the Board.

(6) The provisions of Schedule XII shall have effect as to the general operational principles, powers and administration of the SIRF Fund Board and otherwise in relation thereto.

95. Duties of the Fund

(1) The Fund shall –

- (a) comply with all national laws for the administration of public finance;
- (b) act in accordance with the policies of the government designed to manage, protect, enhance and conserve the environment;
- (c) ensure that all funding decisions are made in accordance with the highest environmental and social safeguards and in a manner that is non-discriminatory;
- (d) with the consent of the Financial Secretary, establish and manage a dedicated account;
- (e) establish thematic funding windows;

(2) In the performance of its mandate under this Act, the Fund shall have the power –

- (a) subject to subsection (3), to raise monies from national, regional and international sources;
- (b) with the approval of the Cabinet, to negotiate and enter into international and domestic funding agreements;
- (c) to monitor and enforce compliance with international and domestic funding agreements

- (d) to ensure that all operations of the Fund comply with international standards for transparency and accountability;
- (e) to ensure that all operations of the Funds meet the highest international standards for fiduciary management;
- (f) to prepare periodic environmental, social and gender impact statements of the Fund's operations, projects and programs.

(3) Where any intended loan to the Fund is to be secured by way of a guarantee by the Government, or is to be raised on the credit of the Government, the SIRF Fund Board shall comply with the requirements of the law relating to the administration of public finance and with any procedure established by the Ministry of Finance for securing Government guarantee prior to making any application for the loan.

96. Supported and non-supported activities

(1) The Fund shall operate on the principles of non-discrimination and the promotion of biodiversity and the sustainable use of the environment and of environmental resources. For these reasons –

- (a) the Fund shall not –
 - (i) support any project or activity that uses or promotes the use of any substance listed under the Stockholm Convention on Persistent Organic Pollutants;
 - (ii) support activities that cause significant harm to the environment, human health, cultural or historic sites, or ecosystem resilience;

6. finance activities that significantly degrade or convert critical natural habitats;

- (iv) support the introduction or use of potentially invasive, non-indigenous species;
 - (v) support activities that have a net general adverse social or economic effect on any community or groups of persons;
 - (vi) discriminate in its activities or in the performance of its duties against any group of persons;
- (b) the Fund shall –

- (i) respect the right to privacy and confidentiality of persons while being sensitive to stakeholder needs for openness and transparency during the development and implementation of its policies, programs and projects;
- (ii) when screening any proposed activity, project or programme, assess and consider any particular impact of the proposed activity on marginalized and vulnerable groups;

6. in determining supportable activities, seek to alleviate poverty and social inequality while reducing environmental problems;

- (iv) in supporting activities that affect the community, seek to avoid involuntary resettlement by exploring all other viable alternatives to resettlement whenever this is possible;

(2) All activities and operations of the Fund shall –

- (a) be undertaken in an open and transparent manner, with every opportunity afforded for meaningful public engagement and participation in the work of the Fund;
- (b) be reported on a webpage and on an information database maintained by the Fund and which persons may access online.

97. Sources of finance and acceptance of contributions

(1) The revenues of the Fund may be generated from the following sources:

- (a) gifts and bequests;
- (b) public and private donations, grants and loans from national and international sources;
- (c) budgetary allocations from Government;
- (d) revenues from investments;
- (e) proceeds from services provided by the Fund;
- (f) monies identified from the Consolidated Fund as co-financing for projects being funded by donor agencies;
- (g) exceptional and miscellaneous income or gains; and

- (h) any other sources of revenue deemed appropriate by the SIRF Fund Board of the Fund.

(2) The Fund may accept donations, loans and financial contributions from lawful sources subject to such conditions as may be imposed by the donor if doing so would not:

- (a) cause the Fund to violate any provisions of the Act or any other law of Antigua and Barbuda;
- (b) cause any violation of the Department's obligation as an accredited entity;
- (c) be reasonably expected to impair the Fund's ability to achieve its purpose.

(3) Contributions to the Fund designated for specific projects or made subject to specific conditions shall be preserved and utilised solely for the designated purpose.

98. Establishment of Thematic Funding Windows

(1) The SIRF Fund Board may establish Thematic Funding Windows to allow for specialisation in and focus on specific focal areas of planned environmental development or environmental programmes.

(2) The SIRF Fund Board may appoint a subcommittee of the SIRF Fund Board to manage and administer a thematic funding window.

(3) The SIRF Fund Board may, in addition to the persons appointed under subsection (2), appoint persons representing non-governmental organisations and civil society to the subcommittee managing any thematic funding window.

99. Appeal

(1) Any person who is aggrieved by a decision of the SIRF Fund Board as to the allocation of monies from the SIRF Fund may, within twenty-one days of the receipt of a decision, request the SIRF Fund Board to reconsider its decision. If after fourteen days of such request the SIRF Fund Board has not returned an answer or the person is still dissatisfied, the person may appeal to the Minister.

(2) Nothing contained in this Act or regulations shall preclude the right of any person who is affected by a decision of the SIRF Fund Board in respect of the allocation of funds to challenge that decision in the High Court.

100. Exemption from taxes

The Fund and the SIRF Fund Board are exempt from the payment of any stamp duty, customs duty, value added tax, motor vehicle tax, fee, charge assessment, levy impost or other tax whatsoever, on any income, expenditure or asset of the Fund or the SIRF Fund Board.

101. Rules for operating the Fund

(1) For the purpose of regulating and controlling the operations of the Fund, the SIRF Fund Board shall work in collaboration with the Financial Secretary within the Ministry of Finance to make Rules with respect to:

- (a) the bank into which revenues of the Fund are to be paid and the designation of any such bank account;
- (b) the method to be adopted in making payments out of the Fund; and
- (c) generally as to matters necessary for the proper administration of the resources of the Fund.

(2) The SIRF Fund Board shall establish an Investment Committee and an Audit and Risk Management Committee and such other committees as it deems appropriate to the carrying out of its functions.

(3) The Investment Committee and the Audit and Risk Management Committee are advisory committees and shall be staffed by such independent professionals with experience in accounting, finance, investment brokering, and any other area deemed relevant to the investment strategy planned by the SIRF Fund Board.

PART XIII COMPLIANCE AND ENFORCEMENT

102. Notice of violation

(1) Where a provision of this Act specifically requires that an action be taken where the Director reasonably believes that a person has committed an offence under this Act or regulations made thereunder, the Department shall cause a written notice of violation (hereinafter called a “Notice”) on such person in the form determined by the Department which shall include—

- (a) a request that the person make such modifications to the activity within a specified time, as may be required to allow continuation of the activity; or

- (b) an invitation to the person to make representations to the Director concerning the matters specified in the Notice within a specified time.

(2) Where a matter specified in the Notice may be satisfactorily explained or otherwise resolved, the Department may

- (a) cancel the Notice or dismiss the matters specified therein; or
- (b) enter into a consent agreement containing such terms and conditions as the Director deems fit.

103. Issue of administrative order

The Director may issue an administrative order where a person—

- (a) fails to make representations to the Director as required under section 102(1)(b) within the time specified in the Notice; or
- (b) is unable to resolve with the Department all matters specified in the Notice.

104. Contents of administrative order

(1) An Administrative Order served by the Director shall, where appropriate—

- (a) specify details of the violation of one or more environmental requirements;
- (b) direct the person to immediately cease and desist from the violation or specify a date for coming into compliance;
- (c) direct the person to immediately remedy any environmental conditions or damages to the environment arising out of the violation or specify a date by which such remedial action shall be completed;
- (d) direct the person to undertake an investigation regarding any environmental circumstances within such person's responsibility or control, including any release of a pollutant or hazardous substance into the environment;
- (e) direct the person to perform any monitoring or record-keeping activities;
- (f) direct a person to comply with any other requirement under this Act.

(2) Any person who is aggrieved by a decision made under subsection (1) may, within twenty-one days of the receipt of a decision, appeal to the Minister against that decision in the manner prescribed in section 119.

105. Other actions by the Department

(1) Whenever the Director reasonably believes that any person is currently in violation of any provision of this Act or regulations made thereunder, or is engaged in any activity likely to result in a violation, the Director may in addition to, or in lieu of any actions authorised under this Act—

- (a) seek a restraining order or other injunctive or equitable relief to prohibit the continued violation or to prevent the activity that would lead to violation;
- (b) seek an order for the closure of any facility or any prohibition against the continued operation of any processes or equipment at such facility in order to halt or prevent any violation
- (c) pursue any other remedy which may be provided by law.

(2) Any action under this Part may be instituted in addition to any other action taken by the Director under this Act.

106. Private party actions

(1) Any person who is aggrieved by a violation of this Act may, with the leave of the court, institute proceedings in a court of competent jurisdiction against any other person whom he or she reasonably suspects is responsible for that violation.

(2) The court may grant leave to institute proceedings pursuant to subsection (1) to any person or group of persons who has a specific interest in the claimed violation of the Act or any other person or group of persons who can satisfy the court that the proceedings are justifiable in the public interest.

(3) In any proceedings brought under this section, the burden of proof is on the person who institutes the proceedings.

107. Liability of company officers

(1) When an act or omission that is offence under this Act or any Regulations made under this Act has been committed by a company incorporated under the Companies Act, any individual who was at the material time a director or officer of that company may be found personally liable for that offence, in addition to or in substitution for any liability to which the company is subject, if

that act or omission was done with his or her knowledge, consent or acquiescence, or if he or she did not exercise reasonable diligence to prevent the commission of that offence.

(2) In any proceedings against a director or officer of a company pursuant to subsection (1), the onus of proving that the offence was committed without his or her knowledge, consent or acquiescence or despite the exercise of reasonable diligence on his or her part is on the accused.

108. Reservation of civil remedies

Nothing in this Act takes away or interferes with the right of the Crown or any other person to sue for and recover, at common law or otherwise, compensation for or in respect of damage or injury caused by an offence under this Act.

PART XIV OFFENCES AND PENALTIES

109. Discharge to watercourse

(1) A person shall not discharge or emit any pollutant into a watercourse.

(2) A person is considered to have caused water resources to become polluted, where—

- (a) the person causes or permit to be released into an underground water system, water way or water body any waste, whether solid, liquid or gaseous—
 - (i) which is prohibited under this Act or any other relevant enactment, or
 - (ii) which does not comply with any standard prescribed for the management of water resources; or
- (b) the person causes or permits the discharge of any hazardous substance whether liquid, solid or gaseous into the waterway, water body or underground water system in contravention of this Act or regulations made pertaining thereto.

(3) A person who contravenes subsection (1) commits an offence and shall be liable to the penalties prescribed under paragraph (c) of Schedule X.

110. Discharge into the atmosphere.

(1) A person shall not discharge or emit any gaseous substance into the atmosphere unless with and under the authority of the appropriate authority.

(2) A person is taken to have discharged or emitted a gaseous substance into the atmosphere where that person—

- (a) causes or permits to be released into the atmosphere any waste, whether solid, liquid or gaseous,
 - (i) which is prohibited under this Act or any other relevant enactment, or
 - (ii) which is in excess of any standard prescribed for as the maximum allowable concentration permissible for the protection of human health as specified in Part D4 or Part E of Schedule VIII;
- (b) causes or permits the discharge of any hazardous substance whether solid, liquid or gaseous into the atmosphere in contravention of this Act and its regulations;
- (c) uses a chemical substance or fuel, the use of which is prohibited under this Act; or
- (d) releases a controlled substance in contravention of an enactment dealing with the use of ozone-depleting substances or the manufacture, assembly, installation, operation, maintenance, removal, sale or disposal of goods, equipment, machinery, or plant containing or using an ozone-depleting substance.

(3) A person who contravenes subsection (1) commits an offence and shall be liable, on conviction to the penalties prescribed under paragraph (c) of Schedule XIV.

111. Offences involving protected wildlife and protected areas

(1) A person shall not—

- (a) hunt a protected animal listed in Part 1 of Schedule IX;
- (b) hunt in the areas outlined in Part 3 of Schedule IX;
- (c) export, possess, sell, expose for sale or otherwise dispose of a protected animal listed in Part 1 of Schedule IX, or a part of such an animal, whether or not it is alive;
- (d) harvest or keep a protected plant listed in Part 2 of Schedule IX;
- (e) sell, pick or remove by any other means or keep a protected plant listed in Part 2 of Schedule IX; or

- (f) export, possess, sell, expose for sale or otherwise dispose of the tooth of a (cetacean).

(2) A person shall not—

- (a) hunt a protected animal that is smaller than the size limit provided in Schedule IX or in the case of marine species, the size limit specified under the Fisheries Regulations;
- (b) hunt within a specified closed season established in this or any other Act, a protected animal listed in Schedule IX; or
- (c) hunt within a specified closed area under this or any other act a protected animal listed in Schedule IX.

(3) A person shall not—

- (a) remove, injure, obstruct access to or destroy the nest of a protected bird; or
- (b) damage, destroy or obstruct access to a place used by a protected animal for shelter, protection or breeding.

(4) A person who wishes to sell, harvest or keep a protected biological resource or genetic material, may make an application to the Director in the manner provided in Form 1 of Schedule XI and the Director may issue a permit for the person to do so if the Director is satisfied that the biological resource or genetic material is required for—

- (a) traditional use;
- (b) a scientific purpose; or
- (c) biodiversity protection.

(5) The Minister may, by notice published in the Gazette, prohibit or restrict, either indefinitely or for the period specified in the notice, the hunting or removal of an animal or plant specified in the notice in or from an area defined in the notice, where the Minister considers it necessary for—

- (a) the control of the spread of disease;
- (b) the protection of human life and property;
- (c) conservation and management of flora and fauna; or

(d) biodiversity.

(6) A person who contravenes this section commits an offence and is liable upon conviction to the penalties prescribed in paragraph (b) of Schedule X.

112. Killing of or accidental injury to protected wildlife

(1) Where a protected animal is killed or injured by accident, or a protected plant is picked by accident, the person responsible for the incident shall as soon as possible, and in any event within seven days after such incident, provide a written report to the Department concerning the circumstances and date of the accidental occurrence.

(2) The Department shall, as soon as is practicable after the receipt of a report under subsection (1), inspect the place where the incident occurred; and

(a) where an animal has been injured, protect the animal from further harm and ensure that necessary veterinary assistance is provided or the animal be returned to its natural habitat as soon as practicable; and

(b) where an animal has been killed or fatally injured, retrieve the animal or subsequently dispose of it according to directions to be given by the Director.

(3) A person who contravenes this section commits an offence and shall be liable on conviction to the penalties prescribed under paragraph (a) of Schedule X.

PART XV

ENVIRONMENT INFORMATION, RESEARCH, EDUCATION AND TRAINING

113. Information gathering

The Minister may cause to be collected information, by means of voluntary surveys, questionnaire, inquires, and other similar means for the purpose of conducting research, creating an inventory of data, formulating objectives, guidelines, codes of practice or draft regulations, reporting on the state of the environment, or administering any provision of this Act.

114. National laboratory program

The Director in conjunction with the Department of Analytical Services shall develop and implement a program for the provision of the environment laboratory services required for the implementation of this Act, taking into account

- (a) the anticipated needs for environment laboratory services under this Act and that required for Antigua and Barbuda to fulfil its obligations under the Stockholm Convention on Persistent Organic Pollutants and other chemicals conventions;
- (b) the anticipated needs for other, related laboratory services in Antigua and Barbuda;
- (c) the state of an environment health laboratory capacity in Antigua and Barbuda; and
- (d) the potential for private analytical services to supply some or all of the environment laboratory requirements of Antigua and Barbuda in a cost-effective manner.

115. Scientific, technical and management research

(1) The Director shall encourage and develop scientific, technical and management research programs on environment issues, including ecological processes, threatened or endangered species, development of measures for the management, recovery and protection of protected areas and species and their habitats, assessment of the effectiveness of measures taken to implement management and recovery plans and monitoring programs and assessments.

(2) The Director shall provide technical assistance for training, research, education and management pertaining to environment issues to relevant agencies, sectors, NGOs and CBOs as well as any other that may request this information.

(3) The Minister may seek information as necessary from scientifically or technically qualified experts and organizations.

116. Public information, education and training

The Director shall develop programs for public information, education and training to promote basic understanding and awareness of the principles promoting sustainable environmental and natural resource management and compliance with the provisions of this Act.

PART XVI MISCELLANEOUS

117. Scientific evidence

(1) The Minister shall by Order designate at least one scientific laboratory in Antigua and Barbuda to be the designated scientific laboratory for the purposes of this Act.

(2) A certificate signed by the person in charge of a designated scientific laboratory appointed under subsection (1), stating that a substance has been analysed or examined and stating the results of the analysis or examination, is admissible in any proceeding under this Act as sufficient evidence of the matters in the certificate and of the correctness of the results of the analysis or examination.

(3) A certificate shall not be admitted into evidence under subsection (2) in a proceeding for an offence under this Act unless the defendant has been given a copy of the certificate together with reasonable notice of the intention to produce the certificate as evidence in the proceedings.

(4) In any proceedings for an offence against this Act, the defendant shall not adduce evidence in rebuttal of a certificate issued by a designated scientific laboratory in relation to any matter of which the certificate is evidence unless, within fourteen days after a copy of the certificate is given to the defendant in accordance with subsection (3), or such further time as the court may allow, the defendant gives to the prosecutor notice in writing of the intention to adduce such rebuttal evidence.

118. Service of documents

(1) Subject to the provisions of this section, any notice or other document required or authorised to be served under this Act, or under any regulation, order, direction or other instrument in writing made under this Act, may be served either—

- (a) in the case of a natural person—
 - (b) by delivering it directly to the person on whom it is to be served; or
 - (i) in a case where an address for service has been furnished by the person on whom it is to be served, by delivering it or sending it by registered mail to that person at that address; or
 - (ii) by such means of substituted service as are recognised or authorised by the Rules of the Eastern Caribbean Supreme Court; and
- (c) in the case of a body corporate, by serving it in accordance with the process for effecting service on a company incorporated under the Companies Act.

(2) Where the Notice or other document is required or authorised to be served on any person as having an interest in any land, and the name of that person cannot be ascertained after reasonable enquiry, or as an owner or occupier of the premises, the Notice or other document is deemed to be duly served if, being addressed to the owner or occupier of the specified premises, it is—

- (a) delivered or sent to the premises by registered mail and is not returned to the sender; or
- (b) affixed conspicuously to some building or fixed object on those premises.

(3) Where a notice or other document to be served under this Act must be served on more than one person, the fact that it was not duly served on any of those persons does not invalidate any action or other proceedings against any other of those persons.

119. Procedure on appeal to Minister

(1) Where a provision of this Act specifically requires that an appeal may lie to the Minister the procedure set out in subsection (2) shall apply.

(2) On receipt of the appeal, the Minister shall establish an Appeals Committee comprised of persons outside of the public service having expertise in the project area being considered.

(3) The Committee shall review the matter before it on appeal, and within twenty-eight days of receipt of the appeal, shall report to the Minister on its findings.

(4) Within fourteen days of the receipt of the report from the Committee, the proposed developer shall be notified of the decision of the Committee by the Department.

(5) Save as otherwise provided in this section, the decision of the Appeals Committee shall be final.

(6) Any person who is not satisfied with the decision of the Appeals Committee may appeal to the High Court against that decision.

120. Public comment and procedures

(1) Where a provision of this Act specifically requires that an action be submitted for public comment and participation, the Department shall—

- (a) publish a notice of the proposed action in the Gazette and at least one daily newspaper of national circulation—
 - (i) advising of the matter being submitted for public comment, including a general description of the matter under consideration;
 - (ii) identifying the location where the comments are to be sent, and;
 - (iii) stating the length of the public comment period.

- (b) establish and maintain a record of the proposed action and make such record available to the public at one or more locations.

(2) The record required under subsection (1) (b) shall include a written description of the proposed action, the major environmental considerations involved in the matter under consideration, copies of documents or other supporting materials which the Department believes would assist the public in developing a reasonable understanding of those issues and a statement of the Department's reasons for the proposed action.

(3) The Department shall receive written comments for not less than thirty days from the date of notice in the Gazette and, if the Director determines that there is sufficient public interest, it may hold a public hearing for discussing the proposed action and receiving verbal comments.

121. Regulations

(1) The Minister may make regulations, subject to negative resolution, for giving effect to the provisions of this Act.

(2) Without prejudice to the generality of subsection (1), the Minister may make regulations for—

- (a) the form of any application, notice or other document required to be made, issued or served under this Act;
- (b) the payment of fees or any other charges payable under this Act;
- (c) the payment of any compensation payable under this Act and the manner of applying for such compensation;
- (d) the adoption of standards and procedures for the carrying out of environmental audits and set out the circumstances in or under which environmental audits must be carried out on any premises, the qualifications of persons by whom such audits may be carried out, and the measures that shall be taken with respect to the findings of such audits;
- (e) procedures for the registration of sources from which pollutants may be released into the environment and the characterisation of such sources;
- (f) the quantity, condition or concentration of pollutants or substances containing pollutants that may be released into the environment generally or by specific sources or categories of sources;

- (g) procedures and standards with respect to permits and licences required for a person to install or operate any process or other source from which pollutants will be or continue to be released into the environment;
- (h) the form and manner of
 - (i) applying for a licence, permit or certification that may be granted by the Department;
 - (ii) revoking, suspending, varying or cancelling a permit or licence or a condition in that permit or licence;
 - (iii) incentive programmes or mechanisms which encourage the use of effective environmental systems and the achievement of improvements in environmental quality;
- (i) designation of hazardous substances or categories of hazardous substances, and the performance standards, procedures, safeguards and licensing or permitting requirements in accordance with which such hazardous substances shall be handled;
- (j) the requirements with respect to the handling and disposal of such categories of waste and the licensing of facilities at which such wastes are handled or disposed of;
- (k) banning the import, export, manufacture, use or distribution of any substance in Antigua and Barbuda that poses an adverse effect on human health and the environment;
- (l) procedures and standards for the periodic or continual monitoring of pollutant releases in conjunction with any process, activity, vehicle or premises;
- (m) the establishment of ambient environmental quality criteria and standards which may be taken into account in setting any general, categorical or source-specific limitations for any new or continued release of pollutants into the environment;
- (n) the design, construction, operation, maintenance and monitoring of facilities or processes for the control of pollution and the handling of wastes;
- (o) performance standards with respect to the generation and release into the environment of pollutants from mobile or immobile machines and equipment;

- (p) the particulars to be recorded in a register required to be kept under this Act and the form in which the register must be kept;
- (q) information to be included in the Environmental Register;
- (r) the amendment of the Schedules to this Act;
- (s) prescribing anything required by this Act to be prescribed.

(3) Any Regulations made under this Act shall be published in the Gazette and shall come into force on the date of publication.

122. Amendment of Schedules

(1) The Minister may, after consultation with the Director, by notice published in the official Gazette amend Schedules I through to XI.

(2) The Minister may, after consultation with the Minister with responsibility for Finance, and on the advice of the SIRF Fund Board, amend Schedule XII by notice published in the official *Gazette*.

123. Repeals and savings

(1) The Environmental Protection and Management Act 2015 is hereby repealed.

(2) The Finance Administration (Sustainable Island Resources Framework Fund) Regulations 2018 is hereby repealed.

(3) Decisions made under the legal authority of the Environmental Protection and Management Act 2015 shall continue in force until such time as it is nullified by a decision taken under this Act in relation to the subject of the earlier decision.

124. Act binds the Crown

This Act binds the Crown.

SCHEDULES

SCHEDULE I*(Sections 2, 110)***CONTROLLED SUBSTANCES****PART I****Group I – any of the following Chlorofluorocarbons whether new, recycled or in a mixture:**

Chemical Formula	Substance	Ozone Depleting Potential
CFCl ₃	CFC-11	1.0
CF ₂ Cl ₂	CFC-12	1.0
C ₂ F ₃ Cl ₃	CFC-113	0.8
C ₂ F ₄ Cl ₂	CFC-114	1.0
C ₂ F ₅ Cl	CFC-115	0.6
CF ₃ Cl	CFC-13	1.0
C ₂ FCl ₅	CFC-111	1.0
C ₂ F ₂ Cl ₄	CFC-112	1.0
C ₃ FCl ₇	CFC-211	1.0
C ₃ F ₂ Cl ₆	CFC-212	1.0
C ₃ F ₃ Cl ₅	CFC-213	1.0
C ₃ F ₄ Cl ₄	CFC-214	1.0
C ₃ F ₅ Cl ₃	CFC-215	1.0
C ₃ F ₆ Cl ₂	CFC-216	1.0
C ₃ F ₇ Cl	CFC-217	1.0

Group II – any Bromofluorocarbon or “Halon”, whether new, recycled or in a mixture, including –

Chemical Formula	Substance	Ozone Depleting Potential
CF ₂ BrCl	halon-1211	3.0
CF ₃ Br	halon-1301	10.0
C ₂ F ₄ Br ₂	halon-2402	6.0

Group III – Carbon tetrachloride, whether new, recycled or in a mixture:

Chemical Formula	Substance	Ozone Depleting Potential
CCl ₄	carbon tetrachloride	1.1

Group IV – Methyl chloroform, whether new, recycled or in a mixture:

Chemical Formula	Substance	Ozone Depleting Potential
C ₂ H ₃ Cl ₃	1,1,1 trichloroethane*	0.1

(* This formula does not refer to 1, 1, 2-trichloroethane)

PART II

Group I – HCFCs – any of the following hydrochlorofluorocarbons, whether new, recycled or in a mixture:

Dichlorofluoromethane	CHFC ₂	HCFC-21	0.04
Monochlorodifluoromethane	CHF ₂ Cl	HCFC-22	0.055
Monochlorofluoromethane	CH ₂ FCl	HCFC-31	0.02
Tetrachlorofluoroethane	C ₂ HFCl ₄	HCFC-121	0.01-0.04
Trichlorodifluoroethane	C ₂ HF ₂ Cl ₃	HCFC-122	0.02-0.08
Dichlorotrifluoroethane	C ₂ HF ₃ Cl ₂	HCFC-123	0.02-0.06
Monochlorotetrafluoroethane	C ₂ HF ₄ Cl	HCFC-124	0.02-0.04
Trichlorofluoroethane	C ₂ H ₂ FC ₃	HCFC-131	0.007-0.05
Dichlorodifluoroethane	C ₂ H ₂ F ₂ Cl ₂	HCFC-132	0.008-0.05
Monochlorotrifluoroethane	C ₂ H ₂ F ₃ Cl	HCFC-133	0.02-0.06
Dichlorofluoroethane	C ₂ H ₃ FC ₂	HCFC-141	0.05-0.07
Monochlorodifluoroethane	C ₂ H ₃ F ₂ Cl	HCFC-142	0.008-0.07

Chlorofluoroethane	C_2H_4FCI	HCFC-151	0.003-0.005
Hexachlorofluoropropane	C_3HFCl_6	HCFC-221	0.015-0.07
Pentachlorodifluoropropane	$C_3HF_2Cl_5$	HCFC-222	0.01-0.09
Tetrachlorotrifluoropropane	$C_3HF_3Cl_4$	HCFC-223	0.01-0.08
Trichlorotetrafluoropropane	$C_3HF_4Cl_3$	HCFC-224	0.01-0.09
Dichloropentafluoropropane	$C_3HF_5Cl_2$	HCFC-225	0.02-0.07
Monochlorohexafluoropropane	C_3HF_6Cl	HCFC-226	0.02-0.1
Pentachlorofluoropropane	$C_3H_2FCl_5$	HCFC-231	0.05-0.09
Tetrachlorodifluoropropane	$C_3H_2F_2Cl_4$	HCFC-232	0.008-0.1
Trichlorotrifluoropropane	$C_3H_2F_3Cl_3$	HCFC-233	0.007-0.23
Dichlorotetrafluoropropane	$C_3H_2F_4Cl_2$	HCFC-234	0.01-0.28
Monochloropentafluoropropane	$C_3H_2F_5Cl$	HCFC-235	0.03-0.52
Tetrachlorofluoropropane	$C_3H_3FCl_4$	HCFC-241	0.004-0.09
Trichlorodifluoropropane	$C_3H_3F_2Cl_3$	HCFC-242	0.005-0.13
Dichlorotrifluoropropane	$C_3H_3F_3Cl_2$	HCFC-243	0.007-0.12
Monochlorotetrafluoropropane	$C_3H_3F_4Cl$	HCFC-244	0.009-0.14
Trichlorofluoropropane	$C_3H_4FCl_3$	HCFC-251	0.001-0.01
Dichlorodifluoropropane	$C_3H_4F_2Cl_2$	HCFC-252	0.005-0.04
Monochlorotrifluoropropane	$C_3H_4F_3Cl$	HCFC-253	0.003-0.03
Dichlorofluoropropane	$C_3H_5FCl_2$	HCFC-261	0.002-0.02
Monochlorodifluoropropane	$C_3H_5F_2Cl$	HCFC-262	0.002-0.02
Monochlorofluoropropane	C_3H_6FCl	HCFC-271	0.001-0.03

Group II

Substance	Chemical Formula	Common Name	Ozone Depleting Potential
Methyl bromide	CH_3Br	MBr	0.7

Schedule II

(Section 2 and Part V: Sections 24 – 39)

POLLUTANTS

PART A
Prohibited Pollutants

1. Organohalogen compounds;
2. Mercury and mercury compounds;
3. Cadmium and cadmium compounds;
4. Persistent plastics and other persistent synthetic material, including netting and ropes, which may remain in suspension in the sea in such a manner as to:
 - (a) interfere materially with fishing, navigation and other legitimate uses of the sea; or
 - (b) present a risk to the health or safety of any living marine resource;
5. Crude oil and its wastes, refined petroleum products, petroleum distillate residues, lubricating oils, hydraulic fluids and any mixtures containing any of these substances;
6. High-level radioactive wastes and other high-level radioactive matter;
7. Materials in whatever form, whether solids, liquids, semi-liquids, gases, or in a living state, that are, have been produced, or are intended for biological or chemical warfare;
8. Organophosphorous compounds, unless these substances, other than substances intended for biological or chemical warfare, are trace contaminants in sewage sludge or dredge spoils, or are rapidly rendered harmless by physical, chemical, or biological processes in the sea, provided they do not:
 - (a) make edible marine organisms unpalatable; or
 - (b) endanger human health or that of marine biota.

PART B
Waste and other matter requiring special permit for dumping

1. Wastes or other matter containing a significant amount of

- (a) arsenic and its compounds;
- (b) lead and its compounds;
- (c) copper and its compounds;
- (d) zinc and its compounds;
- (e) organosilicon compounds;
- (f) cyanides;
- (g) fluorides;
- (h) pesticides and their by-products other than as set out in Schedule II

2. Acids and alkalis containing the following substances:

- (a) beryllium and its compounds;
- (b) chromium and its compounds;
- (c) nickel and its compounds;
- (d) vanadium and its compounds

3. Containers, scrap metal and other bulky wastes that are liable to sink to the sea bottom which may present a serious obstacle to fishing or navigation

4. Substances which, though of a non-toxic nature, may become harmful due to the quantities in which they are dumped, or which are liable to seriously reduce amenities or present a risk to human health or marine biota

5. Radio-active wastes and other radio-active matter not included in Schedule II

6. Incinerated wastes of any matter

PART C
Greenhouse Gases

Substance	Chemical Formula
Carbon Dioxide	CO ₂
Methane	CH ₄
Nitrous Oxide	N ₂ O
Hydrofluorocarbons	HFC _s
Perfluorocarbons	PFC _s
Sulphur hexafluoride	SF ₆

SCHEDULE III*(Section 2)***CATEGORIES OF HAZARDOUS SUBSTANCES****ANNEX A****WASTE STREAMS**

Y1 Clinical wastes from medical care in hospitals, medical centres and clinics

Y2 Wastes from the production and preparation of pharmaceutical products

Y3 Waste pharmaceuticals, drugs and medicines

Y4 Wastes from the production, formulation and use of biocides and phyto-pharmaceuticals

Y5 Wastes from the manufacture, formulation and use of wood preserving chemicals

Y6 Wastes from the production, formulation and use of organic solvents

Y7 Wastes from heat treatment and tempering operations containing cyanides

Y8 Waste mineral oils unfit for their originally intended use

Y9 Waste oils/water, hydrocarbons/water mixtures, emulsions

Y10 Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls (PBBs)

Y11 Waste tarry residues arising from refining, distillation and any pyrolytic treatment

Y12 Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish

Y13 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives

Y14 Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on man and/or the environment are not known

Y15 Wastes of an explosive nature not subject to other legislation

Y16 Wastes from production, formulation and use of photographic chemicals and processing materials

Y17Wastes resulting from surface treatment of metals and plastics

Y18Residues arising from industrial waste disposal operations

Wastes Having as Constituents:

Y19Metal carbonyls

Y20Beryllium; beryllium compounds

Y21Hexavalent chromium compounds

Y22Copper compounds

Y23Zinc compounds

Y24Arsenic; arsenic compounds

Y25Selenium; selenium compounds

Y26Cadmium; cadmium compounds

Y27Antimony; antimony compounds

Y28Tellurium; tellurium compounds

Y29Mercury; mercury compounds

Y30Thallium; thallium compounds

Y31Lead; lead compounds

Y32Inorganic fluorine compounds excluding calcium fluoride

Y33Inorganic cyanides

Y34Acidic solutions or acids in solid form

Y35Basic solutions or bases in solid form

Y36Asbestos (dust and fibres)

Y37Organic phosphorous compounds

Y38Organic cyanides

Y39Phenols; phenol compounds including chlorophenols

Y40Ethers

Y41Halogenated organic solvents

Y42Organic solvents excluding halogenated solvents

Y43Any congener of polychlorinated dibenzo-furan

Y44Any congener of polychlorinated dibenzo-p-dioxin

Y45Organohalogen compounds other than substances referred to in this Annex (e.g.

Y39, Y41, Y42, Y43, Y44).

Y46Wastes collected from households

Y47Residues arising from the incineration of household wastes

Other

Radioactive Wastes

ANNEX B
LIST OF HAZARDOUS CHARACTERISTICS

UN CLASS CODE CHARACTERISTICS

1 H1Explosive

An explosive substance or waste is a solid or liquid substance or waste (or mixture of substances or wastes) which is in itself capable by chemical reaction of producing gas at such a temperature and pressure and at such speed as to cause damage to the surroundings.

3 H3 Flammable liquids

The word “flammable” has the same meaning as “inflammable”. Flammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example, paints, varnishes, lacquers, etc., but not including substances or wastes otherwise classified on account of their dangerous characteristics) which give off a flammable vapour at temperatures of not more than 60.5 degrees C. Closed cup test, or not more than 65.6 degree C. Open-cup test. (Since the

results of open-cut tests and of closed-cup tests are not strictly comparable and even individual results by the same test are often variable, regulations varying from the above figures to make allowance for such differences would be within the spirit of this definition).

4.1 H4.1 Flammable solids

Solids, or waste solids, other than those classed as explosives, which under conditions encountered in transport are readily combustible, or may cause or contribute to fire through friction.

4.2 H4.2 Substances or wastes liable to spontaneous combustion

Substances or wastes which are liable to spontaneous heating under normal conditions encountered in transport, or to heating up on contact with air, and being then liable to catch fire.

4.3 H4.3 Substances or wastes which, in contact with water, emit flammable gases

Substances or wastes which by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.

5.1 H5.1 Oxidising

Substances or wastes which, while in themselves not necessarily combustible, may, generally by yielding oxygen cause, or contribute to, the combustion of other materials.

5.2 H5.2 Organic peroxides

Organic substances or wastes which contain the bivalent-O-O-structure are thermally unstable substances which may undergo exothermic self-accelerating decomposition.

6.1 H6.1 Poisonous (Acute)

Substances or wastes liable either to cause death or serious injury or to harm human health if swallowed or inhaled or by skin contact.

6.2 H6.2 Infectious substances

Substances or wastes containing viable micro organisms or their toxins which are known or suspected to cause disease in animals or humans.

7 H7 Radioactive Materials

Substances or material which spontaneously emit a significant radiation and of which the specific activity is greater than 70kBq/kg (2nCi/g).

8 H8 Corrosives

Substances or wastes which, by chemical action, will cause severe damage when in contact with living tissue, or in the case of leakage, will materially damage, or even destroy, other goods or the means of transport; they may also cause other hazards.

9 H10 Liberation of toxic gases in contact with air or water

Substances or wastes which, by interaction with air or water, are liable to give off toxic gases in dangerous quantities.

9 H11 Toxic (Delayed or chronic)

Substances or wastes which, if they are inhaled or ingested or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity.

9 H12 Ecotoxic

Substances or wastes which, if released, present or may present immediate or delayed adverse impacts to the environment by means of bio-accumulation and/or toxic effects upon biotic systems.

9 H13 Capable, by any means, after disposal, of yielding another material e.g. leachate, which possesses any of the characteristics listed above.

SCHEDULE IV

(Section 54)

PART I

LIST OF PROTECTED AREAS CATEGORY

CATEGORY Ia: Strict Nature Reserve: protected area managed mainly for science Definition: Area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.

CATEGORY Ib Wilderness Area: protected area managed mainly for wilderness protection Definition: Large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition.

CATEGORY II National Park: protected area managed mainly for ecosystem protection and recreation.

Definition: Natural area of land and/or sea, designated to (a) protect the ecological integrity of one or more ecosystems for present and future generations, (b) exclude exploitation or occupation inimical to the purposes of designation of the area and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.

CATEGORY III Natural Monument: protected area managed mainly for conservation of specific natural features.

Definition: Area containing one, or more, specific natural or natural/cultural feature which is of outstanding or unique value because of its inherent rarity, representative or aesthetic qualities or cultural significance.

CATEGORY IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention.

Definition: Area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats and/or to meet the requirements of specific species.

CATEGORY V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation.

Definition: Area of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological

and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.

CATEGORY VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems.

Definition: Area containing predominantly unmodified natural systems, managed to ensure long term protection and maintenance of biological diversity, while providing at the same time a sustainable flow of natural products and services to meet community needs.

PART II
FOREST RESERVES IN ANTIGUA AND BARBUDA

FOREST RESERVE	AREA	REASON FOR PROTECTION
CHRISTIAN VALLEY		BIODIVERSITY
BODY PONDS		BIODIVERSITY AND WATER RESOURCES
REDONDA		WILD LIFE
SUGAR LOAF		BIODIVERSITY
BLACK GHAUT GAYNORS		WETLAND BIODIVERSITY
WALLINGS		BIODIVERSITY

SCHEDULE V
(Section 59)
LIST OF PROTECTED WATERSHEDS

Number	Watershed	Area (ha)	Existing Storage (AF)	Existing Storage (Municipal) AF	Groundwater Yield (m³/yr)
1	Potworks	3,160	30.6	4,010	220,000
2	Body Ponds	4,000	200.4	278	390,000
3	Christian Valley	1,780	9.2	166	610,000
4	Parham	1,472	33.4	-	-
5	Fitches Creek	1,040	334.5	-	-
6	Bethesda	120	540.00	-	-

ha = Hectares; AF = acre-feet; m³/yr = cubic meters per year

SCHEDULE VI
(Section 62)
LIST OF IMPORTANT WETLANDS

Wetland	Area (ha)	Coordinates	Function
ANTIGUA			
McKinnons Salt Pond	78	17°09'N 61°51'W	HABITAT: Inland wetland, mangrove, shrubland, Salina. Critical Bird Nesting Ground OTHER: Water catchment, Flood control mechanism.
Hanson's Bay Flashes	185	17°07'N 61°52'W	HABITAT: Inland wetland, mangrove, shrubland
Valley Church	20	17°04'N 61°53'W	Habitat: Coastline, inland wetland, mangrove, salina
Fitches Creek Bay- Parham Harbour	730	17°07'N 61°47'W	HABITAT: Inland wetland, mangrove, salina
Potworks Dam	115	17°04'N 61°46'W	HABITAT: Inland wetland, shrubland, woodland
Christian Cove	95	17°03'N 61°45'W	HABITAT: Coastline, wetland, mangrove
Bethesda	5	17°02'N 61°44'W	HABITAT: Inland wetland, shrubland
Pinching Bay in Five Islands Harbour			Habitat: Coastline, inland wetland, mangrove, salina
Willoughby Bay			HABITAT: Coastline, wetland, mangrove
BARBUDA			
Bull Hole and Fresh Water Pond			HABITAT: Inland wetland, shrubland

Spanish Point Flash			HABITAT: Inland wetland, mangrove, shrubland
Welches' Flashes			HABITAT: Inland wetland, mangrove, shrubland
Castle Hill			HABITAT: Inland wetland, shrubland
Two Foot Bay			HABITAT: Coastline, wetland,

SCHEDULE VII
(Section 64(2))
WATER QUALITY CRITERIA AND GUIDELINES

Part A – Water Quality Policy

The following water quality management standards and guidelines should be provided in any Policy on Water Quality Management formulated under the provisions of this Act:

(1) the achievement of water quality objectives in Antigua and Barbuda is in the public interest, and the achievement of these objectives should not represent an unreasonable barrier to economic or social development;

(2) existing water uses and the level of water quality necessary to protect existing water uses shall, as a minimum, be maintained and protected;

(3) no further water quality degradation, which would interfere with or become injurious to existing water uses, shall be permitted;

(4) waters whose existing quality is less than the quality specified in standards contained in this Schedule shall be improved to comply with these standards;

(5) waters whose existing quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water shall be maintained and protected unless and until it is found after full opportunity for public participation and intergovernmental co-ordination, that allowing lower water quality is necessary to accommodate an important economic or social development in the area in which the waters are located, subject to the provision that in no event, however, may degradation of water quality interfere with or become injurious to existing uses;

(6) before any new point source or non-point source of pollution lowers the water quality in any area, the person responsible for such pollution shall establish and use at least the most cost-effective and reasonable environment management practices to address such pollution;

(7) to the extent practicable, all new point sources of pollution shall not discharge into near-shore or fresh surface waters;

(8) all sewage and waste shall receive the degree of treatment necessary to protect the beneficial uses of waters of Antigua and Barbuda before discharge;

(9) in no event shall there be a degradation of water quality which shall cause the water quality in any area to fall below that necessary to protect the uses of the water for the propagation of aquatic life and for recreation in and on the water and to protect human health;

(10) outstanding national resource waters shall be protected in a pristine state;

(11) all waste water from industrial or commercial facilities that are located close to a public sewerage system should be disposed into that system, subject to such quality and flow conditions as the owner of the sewerage system may apply;

(12) there shall be no direct or indirect discharge of sewage or other waste into any planned or intended ground or surface source of public drinking water;

(13) no new industrial or commercial facilities will be permitted in any Class I Groundwater area;

(14) in cases where the water quality falls below of what is necessary to protect human health, the person that caused the pollution shall pay for any cost necessary to inform the public of the risks involved, in order to protect human health;

(15) where more than one person is responsible for causing a level of a substance in a water body to exceed a water quality standard or guideline, those persons may agree amongst themselves on the manner to reduce individual contributions to meet the standard or guideline mentioned in this schedule; if they cannot agree within a reasonable time frame amongst themselves, the Department of Environment may require a reduction to be achieved by each person based on what is assumed, by the Department, to be reasonable in the circumstances;

(16) the Department of Environment shall apply a precautionary approach, whenever necessary, to ensure that future developments are not endangered or in case the water body requires a high degree of protection;

(17) a point source or a non-point source of a water pollutant should not, in isolation or combination with any other source(s) of that pollutant, cause a condition to exceed the water quality guidelines mentioned in this Schedule;

(18) a point source or a non-point source of a water pollutant shall not, in isolation or combination with any other source(s) of that pollutant, cause a condition to exceed the water quality standards mentioned in this Schedule;

(19) in order to meet the water quality guidelines and standards in receiving waters mentioned in this Schedule, the concentration of a substance in a point source discharge shall not exceed that water quality guideline or standard, or shall not exceed, after approval by the Department of Environment any stated concentration (mg/l) calculated by using:

- (a) the relevant modelling protocol contained in Dilution Models for Effluent Discharges (U.S. Environment Protection Agency, Office of Resources &

Development. EPA/600/R-94/086), or other equivalent model approved by the Department of Environment;

- (b) background concentration(s);
- (c) discharge volume and density; and
- (d) any other relevant data or criteria as specified in the models listed in paragraph (a).

Part B – Water Use Classification and Criteria

The following water use classifications and criteria should be provided in any quality management standards and guidelines contained in the Policy on Water Quality Management formulated under the provision of this Act:

(1) Coastal Waters are classified in accordance with uses to be protected in each class as follows:

(a) Class AA Waters

- (i) the uses to be protected in this class of water are oceanographic research, the support and propagation of shellfish and other marine life, conservation of coral reefs and wilderness areas, compatible recreation and other aesthetic enjoyment;
- (ii) it is the objective that this class of waters remain as near to their natural state as possible with an absolute minimum of pollution from any source;
- (iii) to the extent possible, the wilderness character of such areas shall be protected;
- (iv) no point source discharge will be permitted in these waters, nor will destruction of reefs, aquatic habitats or other resources be permitted;
- (v) the classification of any water areas as Class AA shall not preclude other uses of such waters compatible with these objectives and in conformance with the standards applicable to them;

(b) Class A Waters

- (i) the uses to be protected in this class of waters are recreational (including swimming, bathing, and other water contact sports), aesthetic enjoyment, and the support and propagation of aquatic life;

- (ii) it is the objective that this class of waters be used for recreational purposes and aesthetic enjoyment shall not be limited in any way;
- (iii) Class A waters shall be kept clean of any trash, solid materials or oil, and shall not act as receiving waters for any effluent which has not received the highest degree of treatment or control practicable under existing technological and economic conditions and shall be compatible with the standards established for this class;

(c) Class B Waters

- (i) waters within such areas are to be used for ports, small boat harbours, industrial activities, mining, commercial and industrial shipping, compatible recreation, the support and propagation of aquatic life, and aesthetic enjoyment;
- (ii) it is the objective for this class of water that discharge of any pollutant be controlled to the maximum extent possible and that sewage and industrial effluent receive the highest degree of treatment practicable under existing technological and economic conditions, and shall be compatible with the standards established for this class;
- (iii) the Class B designation should apply only to a limited area next to commercial or industrial facilities, and the rest of the water area in such bay or harbour shall be Class A unless given some other specific designation;

(2) Fresh Waters are classified in accordance with the uses to be protected as follows:

(a) Class 1 Waters

- (i) the uses to be protected in this class of waters are drinking water supply, food processing, the support and propagation of aquatic life, and compatible recreation;
- (ii) it is the objective that this class of waters remain in as near their natural state as possible with an absolute minimum of pollution from any source;
- (iii) to the extent possible, the natural character of such areas shall be protected;
- (iv) waste discharge into these waters is prohibited;

(b) Class 2 Waters

- (i) the uses to be protected in this class of waters are bathing, swimming, the support and propagation of aquatic life, compatible recreation, and agricultural water supply;
- (ii) it is the objective for this class of waters that their use for recreational purposes, propagation of fish and other aquatic life and agricultural and industrial water supply shall not be limited in any way;
- (iii) Class 2 waters shall be kept clean of trash, solid waste materials and oils and shall not act as receiving waters for any effluent which has not received the highest degree of treatment or control practicable under existing technological and economic conditions, and shall be compatible with the standards established for this class;

(c) **Class 3 Waters**

- (i) the uses to be protected in this class of waters are industrial activities, mining, compatible recreation, the support and propagation of aquatic life, and aesthetic enjoyment;
- (ii) it is the objective for this class of waters that discharge of any pollutant be controlled to the maximum extent possible and that sewage and industrial effluent receive the highest degree of treatment practicable under existing technological and economic conditions, and shall be compatible with the standards established for this class;

(3) **Ground waters** are classified in accordance with the uses to be protected as follows:

(a) **Class I Ground waters** – special ground waters are those that are highly vulnerable to contamination because of the hydrological characteristics of the areas under which they occur and that are also characterised by either of the following two factors:

- (i) irreplaceable in that no reasonable alternative source of drinking water is available to substantial current or future populations, or
- (ii) ecologically vital in that the aquifer provides the base flow for a particularly sensitive ecological system that if polluted would destroy a unique habitat;

(b) **Class II Ground waters** – current and potential sources of drinking water and waters having other beneficial uses are all other ground waters that are currently used or are potentially available for drinking water or other beneficial use;

- (c) **Class III Ground waters** – are not considered potential sources of drinking water and are of limited beneficial uses; these are ground waters that are heavily saline with total dissolved solids levels over 10,000 mg/l, or which are otherwise contaminated beyond levels that allow clean-up using methods reasonably employed in public water system treatment; these ground waters must not migrate to Class I or II Ground waters or have a discharge to surface water that could cause degradation;

Part C – Water Quality Standards

The following water quality standards should be provided in any Policy on Water Quality Management formulated under the provision of this Act:

(1) Basic standards applicable to all waters

All waters shall be capable of supporting desirable aquatic life and shall be suitable for recreation in and on the water.

- (a) In furtherance of the goal mentioned under paragraph (a), all waters shall be:
- (i) free of visible floating materials, oils, greases, scum and other floating matter attributable to human activities; concentrations of oils and greases shall not exceed 10 mg/l in all waters; no oil or grease deposits shall occur;
 - (ii) free from materials attributable to sewage, industrial waste or other human activities that produce visible turbidity, or settle out to form deposits;
 - (iii) free from materials attributable to sewage, industrial waste or other human activities that produce objectionable colour, odour or taste directly or by chemical or biological action with the water or the life forms in the water;
 - (iv) free from substances attributable to human activities that induce undesirable aquatic life or degrade the indigenous biota;
 - (v) free of dangerous objects attributable to human activities;
 - (vi) free of toxic substances in concentrations that are toxic to or that produce detrimental physiological responses in human, plant, animal, or aquatic life.

Compliance with this objective will be determined by use of indicator organisms, analysis of species diversity, population density, growth anomalies, bioassay of appropriate duration or other appropriate methods as specified by the Department of Environment; calculated on the basis that the survival of aquatic life in waters subjected to waste discharge or other controllable water

quality factors shall not be less than that for the same water body in areas unaffected by the waste discharge, or when necessary for other control water that is consistent with the requirements for “experimental water” as described in the latest edition of Standard Methods for the Examination of Water and Wastewater (American Public Health Association), or methods specified by the Department of Environment and as a minimum, compliance with this objective shall be evaluated with a ninety-six (96) hour bioassay.

- (b) The Department of Environment shall apply background levels in place of specified water quality standards or guidelines if background water quality is higher than that specified in other provisions of the standards in order to preserve the water quality found in the present state to prevent the degradation of present conditions and implement the anti-degradation provisions mentioned under Part 1.
– Water Quality Policy.

(2) Specific water quality standards and guidelines — classes of water to which criteria apply

(a) Microbiological Requirement

- (i) The median total coliform bacteria count shall not exceed 70/100 ml for any 10 consecutive samples nor shall any single sample exceed 230/100 ml.

Class AA, 1

6. No sample shall contain any faecal coli forms in 100 ml. Class 1

6. Faecal coliform count shall not exceed a geometric mean of 200/100 ml for any 10 consecutive samples nor shall any single sample exceed 400/100 ml. Class A, B, 2, 3

- (iv) Enterococci count shall not exceed a geometric mean of 33/100 ml for any 5 samples in a given 30 day period; no single sample shall exceed 60/100 ml. Class AA, A

- (v) In areas where shellfish are harvested for human consumption the microbiological standards under (i) shall apply. Class A, B, 2, 3

(b) pH Units

- (i) pH variation shall be with 7.7 and 8.5 units. Class AA, A, B

- (ii) pH variation shall not be greater than 0.2 pH units from natural conditions: but not lower than a pH 6.5 or higher than a pH of 8.5 from other than natural causes. Class 1
 - (iii) pH variation shall not be greater than 0.5 pH units from natural conditions: but not lower than a pH of 6.5 or higher than a pH of 8.5 from other than natural causes. Class 2
 - (iv) pH variation shall not be greater than 0.5 pH units from natural conditions: but not lower than a pH of 6.5 or higher than a pH of 9.0 from other than natural causes. Class 3
- (c) Nutrient Availability
 - (i) The ratio of total nitrogen to total phosphorus concentration shall be within: 11.1 – 27.1 Class AA, A 6.1 – 18.1 Class B 10% variation of the naturally occurring ratio. Class 1,2
 - (ii) The concentration of total nitrogen and total phosphorus shall not vary by more than 10% from the natural conditions All Water
 - (iii) Except for concentrations attributable to natural causes nutrient concentration shall not exceed:
 - for total Phosphorus:
 - (A) 0.025 mg/l as P Class AA, A
 - (B) 0.500 mg/l as P Class B,
 - (C) 0.200 mg/l as P Class 1, 2, 3
 - and for total Nitrogen:
 - (A) 0.400 mg/l Class AA, A
 - (B) 0.800 mg/l Class B
 - (C) 0.750 mg/l Class 1
 - (D) 1.500 mg/l Class 2, 3
 - (iv) To support coral reef growth the yearly average primary productivity of plankton should not exceed 100 mg of carbon per square meter per day. Class AA, A
- (d) Dissolved Oxygen
 - (i) Dissolved oxygen concentrations shall not vary by more than 25% from natural conditions. Class AA, A, 1, 2

- (ii) Except for concentrations attributable to natural causes dissolved oxygen concentration shall not be less than:
 - (A) the greater of 6.0 mg/l, 75% or saturation. Class AA, 1
 - (B) 5.0 mg/l. Class A, 2
 - (C) 4.5 mg/l Class B, 3
- (e) Salinity
 - (i) Salinity changes shall be less than 5% from natural background levels. Class AA, A, B
 - (ii) The salinity shall not be permitted to increase above 1,000 mg/l or the conductivity shall not be permitted to increase above 1,500 mS/cm. Class 1, 2, 3
- (f) Temperature shall not vary by more than 2 degree Celsius from the natural conditions in marine and fresh waters. All Waters
- (g) Turbidity as measured by Nephelometric Turbidity Units (NTU) shall not be:
 - (i) greater than 5% above natural conditions Class AA, 1
 - (ii) greater than 10% above natural conditions. Class A, B, 2, 3
- (h) Light penetration:
 - (i) In fresh waters that are deeper than 0.5 times the natural euphotic depth, the euphotic depth (Zeu) shall not vary by more than 10% from the natural euphotic depth; Class 1, 2, 3
 - (ii) In fresh waters shallower than 0.5 times the natural euphotic depth, the maximum reduction in light at the sediment bed shall not exceed 20%, to protect the light climate of benthic plants; Class 1, 2, 3
 - (iii) In marine waters, the euphotic depth shall not vary by more than 10% from the natural euphotic depth; Class AA, A, B
- (i) Radioactive Materials:

- (i) The concentration of radioactive materials in water shall not exceed 1/30th of the maximum in the U.S. National Bureau of Standards Handbook No. 69. All Waters
 - (ii) Gross alpha activity shall not exceed 0.1 Bq/l and gross beta activity shall not exceed 1 Bq/l. All Waters
 - (iii) The concentration of radioactive materials in water shall not result in the accumulation of radioactivity in plants or animals that would result in a hazard to humans or aquatic life. All Waters
- (j) Oil and Petroleum Products

The concentration of oil and petroleum products shall not:

- (i) Be detectable as a visible film sheen or discoloration of the surface or cause an objectionable odour. All Waters
 - (ii) Cause tainting of fish or other aquatic life, be injurious to the indigenous biota or cause an objectionable taste in drinking water. All Waters
 - (iii) Form an oil deposit on beaches or shorelines or on the bottom of a body of water. All Waters
- (k) Toxic substances

Concentrations of toxic substances shall not exceed:

- (i) natural background levels. Class AA, 1
- (ii) levels to protect swimmers from harmful effects through ingestion as described in the column marked "Swimming Water" contained in Table 1 below.
- (iii) levels to protect people from harmful effects through ingestion as described in the column marked "Drinking Water" contained in Table 1 below.

Class 1

- (iv) levels for the protection of aquatic life in coastal waters and human consumers of fish and other aquatic organisms as described in the column marked "Marine Chronic" in Table 1 below Class A, B

- (iv) levels for the protection of aquatic life in fresh waters and human consumers of fish and other aquatic organisms as described in the column marked “Freshwater Chronic” in Table 1 below Class 2, 3
- (v) levels for the protection aesthetic qualities of Recreational Waters as described in the column marked “Aesthetic qualities” in Table 1 below Class A, 2

(3) Specific Water Quality Standards to protect other water uses

In order to determine the water quality to protect raw drinking water supply or agricultural or industrial water uses, the Australian Water Quality Guidelines for Fresh and Marine Waters (Australian and New Zealand Environment and Conservation Council. November 1992), may be used. (what happens when Australia decides that these Guidelines are outdated or no longer represent proper standards?)

(4) General conditions

All methods of sample collection, preservation, and analysis used to determine compliance with these standards shall be in accordance with those specified in the latest edition of Standard Methods for the Examination of Water and Wastewater (American Public Health Association), or methods specified by the Department of Environment, as appropriate. Samples should be collected at approximately equal intervals and under those conditions of tide, rainfall, and time of day when pollution is most likely to be the greatest or at a maximum level.

- (a) Whenever water quality standards are exceeded, samples shall be taken at frequent intervals to be determined by the Department of Environment according to the severity of the violation.
 - (b) Whenever a background condition is of a higher quality than an assigned water quality standard or guideline, the background condition shall constitute the water quality standard or guideline.
 - (c) Whenever a natural background condition is of a lower quality than an assigned water quality standard or guideline, the natural background condition shall constitute the water quality standard or guideline.
 - (d) Whenever two numeric standards are in conflict, the more stringent standard shall constitute the water quality standard.
- I Whenever two numeric guidelines are in conflict, the more stringent guideline shall constitute the water quality standard.

- (f) Pollutant discharge to either surface or ground waters shall be controlled so as to protect not only the receiving water but also those waters into which the receiving waters may flow.
- (g) The water quality standards or guidelines shall apply within a mixing zone unless specific alternative standards or guidelines have been approved by the Department of Environment. Mixing zones will only be granted in cases where the costs, of:
 - (i) any appropriate process integrated measure(s);
 - (ii) any appropriate end of pipe measure(s), are unreasonably high.
 - (iii) The following equation shall be used to calculate concentration after initial dilution:

$$C_f = C_e + C_b (DI)$$

$$DI + 1)$$

C_f = Concentration after mixing

C_e = Effluent concentration (instantaneous maximum)

C_b = Background concentration

DI = Dilution Ratio).

The mixing zone shall be defined under those conditions of tide, wind, runoff, density stratification and discharge that would result in the minimum dilution.

The Department of Environment can establish additional quality standards for substances within a mixing zone.

The Department of Environment can establish sampling protocols for the determination of any natural background condition.

Table 1 – Water quality standards to protect human health, aquatic life and aesthetic qualities

		Inorganics (con't)				
		<i>Be ryl liu m</i>	<i>Bor on</i>	<i>Cadmi um</i>	<i>Chlor ine (total resid ual)</i>	<i>Chr omi um</i>
Pollutant mg/l Drinking Water	(the average of samples taken on 4 consecutive days shall not exceed)	No adequate data to permit recommendation of a health-based guideline value	0.3	0.003	-	0.05
Aquatic life Swimming Water	(not to exceed for each sample taken)	-	-	0.004	0.019	-
Freshwater Acute	(not to exceed for each sample taken)	0.0001	-	0.0002* *	0.011	-

Freshwater Chronic	(the average of samples taken on 4 consecutive days shall not exceed)	-	-	0.043	0.013	-
Marine Acute	(not to exceed for each sample taken)	0.0001	-	0.002	0.0075	-
Marine Chronic	(the average of samples taken on 4 consecutive days shall not exceed)	-	1.0	0.005	-	0.05

		Inorganics (con't)					
		<i>Chromium (VI)</i>	<i>Chromium (III)</i>	<i>Copper</i>	<i>Total Cyanide</i>	<i>Free Cyanide</i>	<i>Fluoride</i>
Pollutant mg/l Drinking Water	(the average of samples taken on 4 consecutive days shall not exceed)	-	-	2	0.07	-	1.5
Aquatic life Swimming Water	(not to exceed for each sample taken)	0.016	1.7#	0.018#	-	0.022	-

Freshwater Acute	(not to exceed for each sample taken)	0.01	0.21 #	0.00 2**	-	0.005	-
Freshwater Chronic	(the average of samples taken on 4 consecutive days shall not exceed)	1.1	-	0.00 3	-	0.001	-
Marine Acute	(not to exceed for each sample taken)	0.05	-	0.00 5	-	0.005	-
Marine Chronic	(the average of samples taken on 4 consecutive days shall not exceed)	-	-	2	0.1	-	1.5

		Inorganics (con't)					
		<i>I r o n</i>	<i>Lea d</i>	<i>Ma ng- anes e</i>	<i>Me rcu ry (To tal)</i>	<i>Moly bdenu m</i>	<i>Nic kel</i>
Pollutant mg/l Drinking Water	(the average of samples taken on 4 consecutive days shall not exceed)	-	0.0 1	0.5	0.0 01	0.07	0.0 2

Aquatic life Swimming Water	(not to exceed for each sample taken)	-	0.0 82#	-	0.0 02	-	1.4 #
Freshwater Acute	(not to exceed for each sample taken)	1.0 @@	0.0 01* *	0.1	0.0 001	-	0.0 15* *
Freshwater Chronic	(the average of samples taken on 4 consecutive days shall not exceed)	-	0.1 4	-	0.0 02	-	0.0 75
Marine Acute	(not to exceed for each sample taken)	-	0.0 05	0.1	0.0 001	-	0.0 15
Marine Chronic	(the average of samples taken on 4 consecutive days shall not exceed)	-	0.0 5	0.5	0.0 01	0.07	0.1

		Inorganics					
		<i>Nitrate</i>	<i>Nitrite</i>	<i>The sum of the ratio of the concentration of each (Nitrate and Nitrite) to its respective guideline value</i>	<i>Selenium</i>	<i>Selenium (IV, Selenite)</i>	<i>Silver</i>
Pollutant mg/l Drinking Water	(the average of samples taken on 4 consecutive days shall not exceed)	50	3	-	0.01	0.01	0.1
Aquatic life Swimming Water	(not to exceed for each sample taken)	-	-	16.4	-	1.2	0.004#
Freshwater Acute	(not to exceed for each sample taken)	-	-	0.02	0.005	0.00002	0.0001
Freshwater Chronic	(the average of samples taken on 4 consecutive days shall not exceed)	-	-	-	-	2.4	0.0023

Marine Acute	(not to exceed for each sample taken)	-	-	-	0.07	0.00002	0.001
Marine Chronic	(the average of samples taken on 4 consecutive days shall not exceed)	50	3	-	0.01	0.05	0.1

		Inorganics					
		<i>Nitrate</i>	<i>Nitrite</i>	<i>The sum of the ratio of the concentration of each (Nitrate and Nitrite) to its respective guideline value</i>	<i>Selenium</i>	<i>Selenium (IV, selenite)</i>	<i>Silver</i>

Pollutant mg/l Drinking Water	(the average of samples taken on 4 consecutive days shall not exceed)	50	3	1	0.01	-	0.1
Aquatic life Swimming Water	(not to exceed for each sample taken)	-	-	-	-	0.26	0.004#
Freshwater Acute	(not to exceed for each sample taken)	-	-	-	0.005	0.035	0.0001
Freshwater Chronic	(the average of samples taken on 4 consecutive days shall not exceed)	-	-	-	-	0.41	0.0023
Marine Acute	(not to exceed for each sample taken)	-	-	-	0.07	0.054	0.001
Marine Chronic	(the average of samples taken on 4 consecutive days shall not exceed)	50	3	1	0.01	-	0.1

		Inorganics			
		<i>Sulphate</i>	<i>Sulphide</i>	<i>Uranium</i>	<i>Zinc</i>
Pollutant mg/l Drinking Water	(the average of samples taken on 4 consecutive days shall not exceed)	500	0.05	0.14	-
Aquatic life Swimmin g Water	(not to exceed for each sample taken)	-	-	-	0.12#
Freshwater Acute	(not to exceed for each sample taken)	-	0.002	-	0.005@@
Freshw ater Chronic	(the average of samples taken on 4 consecutive days shall not exceed)	-	-	-	0.095
Marine Acute	(not to exceed for each sample taken)	-	0.002	-	0.05
Marin e Chroni c	(the average of samples taken on 4 consecutive days shall not exceed)	500	0.05	0.14	-

		Organics				
		<i>Pesticides</i>	<i>Benzene</i>	<i>DDT</i>	<i>Dieldrin</i>	<i>Malathion</i>
Pollutant mg/l Drinking Water	(the average of samples taken on 4 consecutive days shall not exceed)	0.1	0.005	-	-	-
Aquatic life Swimming Water	(not to exceed for each sample taken)	-	5.3	0.001	0.0025	-
Freshwater Acute	(not to exceed for each sample taken)	-	0.04	0.000000 03	0.00000008	0.0001
Freshwater Chronic	(the average of samples taken on 4 consecutive days shall not exceed)	-	5.1	0.0001	0.0007	-
Marine Acute	(not to exceed for each sample taken)	-	0.04	0.000000 03	0.00000008	0.0001

Marie Chroni c	(the average of samples taken on 4 consecutive days shall not exceed)	0.1	0.01	-	-	-
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		Organics				
		<i>Parathion</i>	<i>PCB's</i>	<i>Phenols</i>	<i>2,3,7,8-tetrachloro-dibenzo-dioxin</i>	<i>Tributyltin oxide</i>
Pollutant mg/l Drinking Water	(the average of samples taken on 4 consecutive days shall not exceed)	-	0.0001	0.002	-	0.002
Aquatic life Swimming Water	(not to exceed for each sample taken)	0.000065	0.002	10.2	-	-
Freshwater Acute	(not to exceed for each sample taken)	0.000013	0.000001	0.05	0.00001 ng/l	0.000008

Freshwater Chronic	(the average of samples taken on 4 consecutive days shall not exceed)	-	0.01	5.8	-	-
Marine Acute	(not to exceed for each sample taken)	-	0.000004	0.05	-	0.000002
Marine Chronic	(the average of samples taken on 4 consecutive days shall not exceed)	-	0.0001	0.002	-	0.002

* Assumes water temperature of 25 degrees Celsius and pH 7.

** Depends upon hardness of water.

* Assumes water temperature of 25 degrees Celsius and pH 7.

** Depends upon hardness of water.

Assumes water hardness 100 mg/l CaCO₃.

@ Assumes pH > 6.5.

@@ Provided iron is not present as Fe (II).

Acute standards are designed to protect against acute effects (e.g., death) resulting from spikes in pollutant concentrations.

Chronic standards are designed to protect against sub-lethal effects occurring from elevated pollutant concentrations over a longer (4-day period).

The standards from Table 1 are derived from the following sources in order of decreasing priority: World Health Organisation (WHO) Guidelines for Drinking-Water Quality; Australian and New Zealand Environment and Conservation Council (ANZECC) Guidelines for Raw Waters for

Drinking Purposes, Protection of Human Consumers of Fish and other Aquatic Organisms, and Protection of Aquatic Ecosystems contained in Australian Water Quality Guidelines for Fresh and Marine Waters; Recommended National Environment Quality Criteria for Antigua and Barbuda, contained in Recommended National Environment Quality Criteria, Government of Antigua and Barbuda; United States Environment Protection Agency (USEPA) Quality Criteria for Water.

SCHEDULE VIII
(Section 64(3))
AIR QUALITY CRITERIA

Part 1 – General

1. In order to meet the emission guidelines and standards mentioned in Parts 2 or 5 of this Schedule, a point source of a substance shall not exceed a specified concentration (mg/Nm³).

2. A point source or a non-point source of an air polluting substance should not, in isolation or combination with any other source(s) of that substance, cause a concentration of that substance in the ambient air around any premises used primarily for residential purposes to exceed the air quality guidelines mentioned in Part 3 of this Schedule.

3. A point source or a non-point source of an air polluting substance shall not, in isolation or combination with any other source(s) of that substance, cause a concentration of that substance in the ambient air around any premises used primarily for residential purposes to exceed the air quality standards mentioned in Part 4 of this Schedule.

4. In order to meet the air quality guidelines and standards mentioned in Part 3 and Part 4 of this Schedule, the concentration of a substance in a point source discharge shall not exceed any stated concentration (mg/Nm³) calculated by using:

the relevant modelling protocol contained in Industrial Source Complex (ISC3) Dispersion Models (United States Environment Protection Agency, Office of Air Quality Planning and Standards, Emissions, Monitoring, and Analysis Division, USEPA-454/B-95-003a), or other equivalent model approved by the Department of Environment;

surface meteorological data from an appropriate source;

mixing height data from an appropriate source;

discharge temperature and volume data;

the height of discharge; and

any other relevant data or criteria as specified in the models listed in paragraph (a).

5. Where more than one person is responsible for causing the discharge of a substance in the ambient air around any premises used primarily for residential purposes such as to exceed any specified air quality criteria, those persons may agree amongst themselves on the manner to reduce individual contributions such as to meet the criteria mentioned under Part 3 and Part 4 of this Schedule. If they cannot agree within a reasonable time frame amongst themselves, the Department of Environment may require a reduction to be achieved by each person based on what is assumed, by the Department, to be reasonable in the circumstances.

6. Commercial or industrial facilities shall regularly monitor exhaust discharge points, and for this purpose shall use such monitoring protocols as may be specified by, where appropriate:

the Department of Environment;
the facility's Code of Environmental practice; or
Regulations under this Act.

Part 2 – Classification of substances and emission guidelines and standards

Substances are classified in Tables 1 and 2 in the following categories according to toxic, persistent and carcinogenic qualities:

Category 1 – Environmentally Toxic and Persistent or Carcinogenic Substances

The best available technical means avoiding unreasonably high costs shall be utilised to reduce the exhaust of these substances. The concentration of solid substances in this category shall not exceed 2.5 mg/Nm³ at the point of the exhaust. The concentration of a gas, vapour or haze of a substance in this category should not exceed the MAC-value specified in Table 2 at the point of the exhaust.

Category 2 – Environmentally Toxic and Non-Persistent Substances

The best practicable means should be utilised to reduce the exhaust of these substances. Reducing the effects of this exhaust to an acceptable level by dispersion may be necessary in cases where the exhaust concentrations are high. The concentration of solid substances in this category should not exceed 25 mg/Nm³ at the point of the exhaust. The concentration of a gas, vapour or haze of a substance in this category should, if exhausted at roof level, not exceed ten times the MAC-value specified in Table 2 at the point of the exhaust.

Category 3 – Mildly Toxic but Environmentally Persistent Substances

The best practicable means should be utilised to reduce the exhaust of these substances. Reducing the effects of this exhaust to an acceptable level by dispersion may be necessary in cases where the exhausted concentrations are high. The concentration of solid substances in this category should not exceed 75 mg/Nm³ at the point of the exhaust. The concentration a gas, vapour or haze of a substance in this category should, if exhausted at roof level, not exceed ten times the MAC-value specified in Table 2 at the point of the exhaust.

Category 4 – Non-Toxic and Non-Persistent Substances

The best practicable means should be utilised to reduce the exhaust of these substances. Reducing the effects of this exhaust to an acceptable level by dispersion may be necessary in cases where the exhausted concentrations are high. To prevent nuisance, the concentration of solid substances in this category should not exceed 100 mg/Nm³ at the point of the exhaust. The concentration of gas, vapour or haze of a substance in this category should, if exhausted at roof level, not exceed ten times the MAC-value specified in Table 2 at the point of the exhaust.

Part 3 – Air Quality Guidelines

1. The concentration of a substance, in the ambient air, around any premises used primarily for residential purposes, should, for the 95 percentile of all daily mean values taken throughout the year, not exceed the air quality guideline for that substance mentioned in Table 1 or Table 2.

2. Where a gas, vapour or haze substance is not mentioned in Table 2, the concentration of that substance, in the ambient air, around any premises used primarily for residential purposes, should, for the 95 percentile of all daily mean values taken throughout the year, not exceed:

- (a) category 1: 0.001x MAC-value,
- (b) category 2: 0.01 x MAC-value,
- (c) category 3 and 4: 0.03 x MAC-value.

If the scent limit is lower than the limit based on the MAC-value than an air quality criteria of 0.3 x the scent limit should be used.

3. Where a solid substance is not mentioned in Table 1, the concentration of that substance, in the ambient air, around any premises used primarily for residential purposes, should, for the 95 percentile of all daily mean values taken throughout the year, not exceed:

- (a) category 1: 0.001 mg/m³,
- (b) category 2: .01 mg/m³,
- (c) category 3 and 4: 0.03 mg/m³.

If the scent limit is lower than the above-mentioned limit than an air quality criteria of 0.3 x the scent limit should be used.

4. The concentration of inert dust in the ambient air around any premises used primarily for residential purposes, should, for the 95 percentile of all daily mean values taken throughout the year, not exceed 0.075 mg/m³.

Raising a chimney to meet the guidelines under this Part shall only be allowed in cases where the costs of any:

appropriate process integrated measure(s);

appropriate end of pipe measure(s),

are unreasonably high.

Part 4 – Air Quality Standards

1. The MAC-values in Table 2 are to be regarded as minimum standards required for the protection of human health in the workplace, and discharges affecting ambient air around any premises used primarily for residential purposes shall meet higher standards.

2. The average concentration over a continuous 8 hour period, of a gas, vapour or haze of a substance in the ambient air around any premises used primarily for residential purposes, shall not exceed the MAC-value mentioned in Table 2.

3. The average concentration over a continuous 24 hour period, of particulate matter, in the ambient air around any premises used primarily for residential purposes, shall not exceed 0.15 mg/m³.

4. The average concentration over a continuous 24 hour period, of sulphur dioxide, in the ambient air, around any premises used primarily for residential purposes, shall not exceed 0.365 mg/m³.

5. The average concentration over a continuous 1 hour period, of sulphur dioxide, in the ambient air, around any premises used primarily for residential purposes, shall not exceed 0.35 mg/m³.

6. The average concentration over a continuous 1 hour period, of nitrogen dioxide, in the ambient air, around any premises used primarily for residential purposes, shall not exceed 0.32 mg/m³.

7. The average concentration over a continuous 1 hour period, of carbon monoxide, in the ambient air, around any premises used primarily for residential purposes, shall not exceed 29 mg/m³.

8. Raising a chimney to meet the guidelines under this Part shall only be allowed in cases where the costs of any:

- (a) appropriate process integrated measure(s);
- appropriate end of pipe measure(s),
- are unreasonably high.

Part 5 – Emission Standards (Dioxins and Furans and other Substances)

1 The sum concentrations of:

- (a) 2,3,7,8-Tetrachlorodibenzo-P-Dioxin,
- (b) 1,2,3,7,8-Pentachlorodibenzo-P-Dioxin,
- (c) 1,2,3,6,7,8-Hexachlorodibenzo-P-Dioxin,

- (d) 1,2,3,7,8,9-Hexachlorodibenzo-P-Dioxin,
- (e) 1,2,3,4,7,8-Hexachlorodibenzo-P-Dioxin,
- (f) 2,3,7,8-Tetrachlorodibenzofuran,
- (g) 2,3,4,7,8-Pentachlorodibenzofuran,
- (h) and 1,2,3,6,7,8-Hexachlorodibenzofuran

shall not exceed, at the point of the exhaust, 0.5 nanograms/Nm³ in any emission from a commercial or industrial facility.

2. The concentration of any Category 1 solid substances listed in Table 1 shall not exceed 2.5 mg/Nm³ at the point of the exhaust.

Table 1 – Solid substances

Substance	Category	Air quality guideline mg/m ³
Ammonium compounds	3	0.03
Antimony compounds	2	0.01
Arsenic compounds	1	0.001
Asbestos	1	0.001
Bariumsulfate	3	0.03
(Other) Barium compounds	2	0.01
Bitumen	3	0.03
Bone-meal	2	0.01
Cadmium	1	0.001

Calcium hydroxide	3	0.03
Calcium oxide	3	0.03
Chromium and Chromium compounds	1	0.001
Copper and Copper compounds	2	0.01
Corn or flour dust	4	0.03
Cyanides (Sodium and Calcium compounds)	1	0.001
DDT and related compounds	1	0.001
Fertiliser (phosphates)	3	0.03
Lead and Lead compounds	1	0.001
Magnesium compounds	3	0.03
Nickel compounds	1	0.001
Soot	2	0.01
Tar	2	0.01
Tobacco	3	0.03
Wood dust	2	0.01
Zinc and Zinc compounds	2	0.01

Table 2 – Gas, vapour or haze substances

Substance	Category	MAC-value mg/m3	Scent limit mg/m3	Air quality guideline mg/m3
Acetic acid	2	25	0.25	0.25
Acetic anhydride	2	20	-	0.2
Acetone	4	2400	1	70
Acetylene	4	-	-	-
Acrolein	2	0.25	0.05	0.003
Acrylonitrile	1	9	-	0.001
Ammonia	2	18	0.1	0.18
Benzene	1	30	3	0.005
Butane	4	1430	-	40
normal-Butanol	2	150	0.2	1.5
normal-Butyl acetate	2	710	0.03	0.2
Carbon monoxide	4	29	-	1
Carbon disulphide	2	60	0.05	0.05
Chlorine	2	3	0.06	0.03

Chloroform	1	120	30	0.12
Cyclohexane	2	1050	2	10
Cyclohexanone	2	200	0.02	0.03
1,2 Dichloroethane	1	200	17	0.2
Dichloromethane	1	350	4	0.35
Diethyl ether	2	1200	-	0.3
Epichlorohydrin	1	4	-	0.004
Ethane	4	-	-	-
Ethanol	4	1900	7	30
Ethyl acetate	2	1400	0.6	3
Ethylene oxide	2	90	-	0.9
Formaldehyde	2	1.5	0.07	0.015
Furfuryl alcohol	2	20	-	0.02
normal-Heptane	2	1600	-	16
normal-Hexane	2	360	-	3.6
Hydrazine	1	0.13	1	0.01

Hydrochloric acid	2	7	0.2	0.07
Hydrogen	4	-	-	-
Hydrogen fluoride	1	2	-	0.006
Hydrogen phosphide	2	0.4	0.1	0.004
Hydrogen sulphide	2	15	0.0001	0.001
Isobutyl acetate	2	700	0.6	0.3
Isopropyl alcohol	2	980	2	210
Methyl bromide	1	20	-	0.02
Methylene bis phenyl isocyanate (MDI)	2	0.02	-	0.002
Methyl ethyl ketone	2	590	0.7	5
Methyl formate	2	250	-	2.5
Methyl isobutyl ketone	2	410	0.4	0.5
Methyl methacrylate	2	410	0.2	0.1
alpha-Methylstyrene	2	480	0.04	0.03
Monochlorobenzene	1	350	-	0.35
Naphthalene	2	50	0.004	0.1

Nitric oxide (NO)	2	30	-	0.05
nitrous oxide (N ₂ O)	2	4	0.1	
Ozone	2	0.2	0.015	0.002
normal-Pentane	2	360	-	3.6
Perchloroethylene	2	240	12	2.4
Phenol	2	19	0.02	0.1
Phosgene	2	0.4	0.5	0.004
normal-Propyl acetate	2	840	-	8.4
Propylene oxide	2	240	-	2.4
Prussic acid	2	11	-	0.11
Pyridine	2	15	0.04	0.05
Styrene monomer	2	420	0.02	0.03
Sulphur dioxide	2	5	0.9	0.08
Sulphuric acid	2	1	-	0.01
Toluene	2	375	0.08	1
Toluene diisocyanate (TDI)	2	0.14	-	0.001

1,1,1- Trichloroethane	1	1080	-	1
1,1,2- Trichloroethane	2	45	1	0.045
Trichloroethylene	2	190	-	1.9
Vinyl chloride	1	8	-	0.08
Xylene	2	435	0.6	1

SCHEDULE IX*(Section 65)***LIST OF PROTECTED WILDLIFE****PART 1 – ANIMALS**

Common Name	Species	Notes
Mammals		
All Marine Mammals found in Antigua and Barbuda waters including all cetaceans (whale, dolphin, and porpoise species), including:		
Humpback Whale	<i>Megaptera novaeangliae</i>	
Bats		
Funnel Eared Bat	<i>Natalus stramineus stramineus</i> Gray 1834	
Long Tongued Bat	<i>Monophyllus plethodon luciae</i> Miller 1902	
Lesser Antillean Fruit Bat	<i>Brachyphylla cavernarum cavernarum</i> Gray 1834	
Fisherman Bat	<i>Noctilio leporinus mastivus</i> Vahl 1797	
Brazilian Free Tailed bat	<i>Tadarida brasiliensis antillarum</i> Miller 1902	
Fruit Bat	<i>Artibeus jamaicensis jamaicensis</i> Leach 1821	
Birds		
All Native Bird Species Including the following		
Barbuda Warbler	<i>Dendroica subita</i>	National endemic
Antigua Broad-winged Hawk	<i>Buteo platypterus insulicola</i>	National endemic
West Indian Whistling Duck	<i>Dendrocygna arborea</i>	

Piping Plover	<i>Charadrius melodus</i>	
Roseate Tern	<i>Sterna dougallii</i>	
Least Tern	<i>Sternata antillarum</i>	
White-crowned Pigeon	<i>Columba leucocephala</i> (<i>Patagioenas leucocephala</i>)	
Ruddy Quail-Dove	<i>Geotrygon montana</i>	
Bridled Quail-Dove	<i>Geotrygon mystacea</i>	
Red-necked Pigeon	<i>Columba squamosa</i> <i>Patagioenas squamosa</i>	
Blue-hooded Euphonia	<i>Tanagra musica</i> <i>Euphonia musica</i>	
Lesser Antillean Flycatcher	<i>Myiarchus oberi</i>	
Frigatebird	<i>Fregata magnificens</i>	
Brown Pelican	<i>Pelecanus occidentalis occidentalis</i>	
Brown Trembler	<i>Cinclocerthia ruficauda</i>	
White Cheek Pintail	<i>Anas bahamensis</i>	
Little Egret	<i>Egretta garzetta</i>	
Antillean Crested Hummingbird	<i>Orthorhyncus cristatus</i>	.
. Mangrove Cuckoo	<i>Coccyzus minor</i>	
Red Billed Tropic Bird	<i>Phaethon aethereus</i>	
Little Blue Heron	<i>Egretta caerulea</i>	
Green-throated Carib	<i>Eulampis holosericeus</i>	
. Purple-throated Carib	*, <i>Eulampis jugularis</i>	
Tropical mockingbird	<i>Mimus gilvus</i>	
ALL nesting terns and seabirds, excluding the Laughing Gull (<i>Larus atricilla</i>)		
Reptiles		
Antigua Racer Snake	<i>Alsophis antiguae</i>	National Endemic

Green Turtle	<i>Chelonia mydas</i>	
Hawksbill Turtle	<i>Eretmochelys imbricata</i>	
Loggerhead Turtle	<i>Caretta</i>	
Leatherback Turtle	<i>Dermochelys coriacea</i>	
Lesser Antillean Iguana	<i>Iguana delicatissima</i>	
Antigua Least Gecko	<i>Sphaerodactylus elegantulus</i>	National Endemic
Redonda Dwarf Gecko	<i>Sphaerodactylus</i> sp.	Endemic to Redonda
Antiguan Ground Lizard	<i>Ameiva griswoldi</i>	National Endemic
Redonda Ground Lizard	<i>Ameiva atrata</i>	Endemic to Redonda
Redonda Tree Lizard	<i>Anolis nubilis</i>	Endemic to Redonda
Antiguan spotted anole	<i>Anolis leachi</i>	National Endemic
Watts' Tree Lizard	<i>Anolis wattsi</i>	National Endemic
Barbuda Tree Lizard	<i>Anolis forrestii</i>	Barbuda endemic
Fish (sea and fresh water)		
TBD		
Shellfish (Moluscs, Crustaceans, Echinoderms)		
TBD		
Arthropods (Insects, Spiders, Crabs)		
TBD		
Corals, sea anenomes, sponges		
TBD		
Starfish, sea urchins, sea cucumbers		
TBD		

PART 2 – PLANTS

Species	Family	Common Name	Notes
Ferns			
All native fern species	Pteridophyta	Ferns	This covers all ferns in the wild.
Orchids			
All native orchid species	Orchidaceae	Orchids	This covers all orchids in the wild.
Palm Trees			
All native palm species.			This covers most palms in the wild but excludes <i>Cocos nucifera</i> (coconut) and <i>Phoenix dactylifera</i> (date palm)
<i>Acrocomia 149merican</i> (Jacq.) Lodd	Arecaceae	Macaw Palm	
<i>Coccothrinax barbadensis</i> Becc.	Arecaceae	Palmetto	
<i>Roystonea oleracea</i> O.F. Cook	Arecaceae	Cabbage Palm	
<i>Thrinax morrisii</i> H. Wendl.	Arecaceae	Pimetta	
Bromeliads			
All native Bromeliads	Bromeliaceae	Bromeliad, man-pon-tree	This covers all Bromeliads in the wild.
Agaves			

All native Agaves			This covers all Agaves in the wild.
<i>Agave karatto</i> Miller	Agavaceae	Dagger	
<i>Agave dussiana</i> Trel.	Agavaceae	Dagger	
<i>Furcraea 150merican</i> (P. Mill.) Ait. F.	Agavaceae	Dagger	
Mangroves			
All mangrove species including:			
<i>Avicennia germinans</i> (L.) L.	Acanthaceae	Black Mangrove	
<i>Avicennia schaueriana</i>	Acanthaceae	Black Mangrove	
<i>Conocarpus erectus</i> L.	Combretaceae	Button Mangrove	
<i>Laguncularia racemosa</i> (L.) Gaertn. F.	Combretaceae	White Mangrove	
<i>Rhizophora mangle</i> L.	Rhizophoraceae	Red Mangrove	
Cacti			
All native cacti species including:			This covers all cacti in the wild except for the edible prickly pear, <i>Opuntia cochenelifera</i>
<i>Acanthocereus tetragonus</i> (L.) Humm	Cactaceae		
<i>Hylocereus Trigonus</i> (Haw) Saff	Cactaceae	Creeping cactus	
<i>Mammillaria nivosa</i> Link ex Pfeiff.	Cactaceae		
<i>Melocactus intortus</i> (Mill.) Urb.	Cactaceae	Turk's cap cactus	
<i>Opuntia currassavica</i> (L.) Miller	Cactaceae		
<i>Opuntia dillenii</i> (Ker Gawl.) Haw.	Cactaceae		

<i>Opuntia rubescens</i> Salm-Dyck Ex DC	Cactaceae	Tree cactus
<i>Opuntia triacantha</i> (Willd.) Sweet	Cactaceae	
<i>Pilosocereus royerii</i> (L.) By.& Row.	Cactaceae	Dul dul
<i>Rhipsalis baccifera</i> (J. S. Miller) Stearn	Cactaceae	
Mistletoes		
Hemi-parasitic mistletoes including:		
<i>Dendropemon caribaeus</i> Krug & Urb.	Loranthaceae	Caribbean mistletoe
<i>Psittacanthus martinicensis</i> (Presl) Eichler	Loranthaceae	Man 'pon tree
<i>Phoradendron trinervium</i> (Lam) Griseb.	Santalaceae	Angled mistletoe
All very large trees		
All trees with a girth in excess of 180 cm		
All IUCN Red Listed Species inc:		
<i>Guaiacum officinale</i> L.	Zygophyllaceae	Lignum Vitae
<i>Cedrela odorata</i> L.	Meliaceae	Red cedar
<i>Schoepfia arenaria</i> Britt.	Olacaceae	
<i>Tabernaemontana citrifolia</i> L.	Apocynaceae	Milky Bush
<i>Swietenia mahagoni</i> (L.) Jacq.	Meliaceae	W.I. mahogany
National Endemics/near- Endemics		
<i>Pectis ericifolia</i> Keil	Asteraceae	
<i>Jacquemontia ovalifolia</i>	Convolvulaceae	

Regional Endemic Monocots		
<i>Anthurium grandifolium</i> (Jacq.) Kunth	Araceae	
<i>Smilax coriacea</i> Spreng.	Smilacaceae	Greenbriar
<i>Smilax guianensis</i> Vitman	Smilacaceae	
<i>Heliconia bihai</i> (L.) L.	Heliconeaceae	Wild plantain
<i>Heliconia caribaea</i> Lam.	Heliconeaceae	Lobsterclaw
Regional Endemic Dicots		
<i>Hedyosmum arborescens</i> Sw.	Chloranthaceae	Cigarbush
<i>Peperomia myrtifolia</i> (Vahl) A. Dietr.	Piperaceae	Myrtle-leaf peperomia
<i>Piper dussii</i> C. DC.	Piperaceae	
<i>Aristolochia rugosa</i> Lam.	Aristolochiaceae	
<i>Hernandia 152meric</i> L.	Hernandiaceae	Mago, Jack-in-the-box
<i>Cinnamomum elongatum</i> (Vahl ex Nees) Kosterm.	Lauraceae	Pitch-pine sweetwood
<i>Ocotea leucoxylon</i> (Sw.) de Lanes	Lauraceae	Loblolly sweetwood
<i>Ocotea patens</i> (Sw.) Nees	Lauraceae	Capberry
<i>Myrcia citrifolia</i> (Aublet) Urban var. <i>imrayana</i>	Myrtaceae	Red birch, guava berry
<i>Psidium longipes</i> (O. Berg) McVaugh var. <i>orbiculare</i>	Myrtaceae	Mangrove berry
<i>Henriettea triflora</i> (Vahl) Alain	Melastomataceae	
<i>Acacia muricata</i> (L.) Willd.	Leguminosae	Spineless wattle
<i>Albizia berteriana</i> (DC.) M. Gomez	Leguminosae	
<i>Ziziphus 152mericana152</i> (Vahl)	Rhamnaceae	Ironwood

DC.

<i>Cecropia schreberiana</i> Miq.	Moraceae	Trumpet tree
<i>Croton betulinus</i> M. Vahl	Euphorbiaceae	Nanny bush
<i>Sapium caribaeum</i> Urban	Euphorbiaceae	Milk tree
<i>Ouratea guildingii</i> (Planchon) Urban	Ochnaceae	
<i>Byrsonima trinitensis</i> Adr. Juss.	Malpighiaceae	Tanning tree
<i>Malpighia martinicensis</i> Jacq.	Malpighiaceae	Wild cherry
<i>Clusia rosea</i> Jacq.	Clusiaceae	Pitch apple, autograph tree
<i>Dacryodes 153meric</i> Vahl	Burseraceae	Gommier
<i>Zanthoxylum punctatum</i> Vahl	Rutaceae	Ramgoat
<i>Sterculia caribaea</i> R. Br.	Sterculiaceae	Wild Mahot
<i>Coccoloba x boxii</i> Sandw.	Polygonaceae	
<i>Marcgravia 153mericana</i> L.	Marcgraviaceae	
<i>Jacquinia berterii</i> Sprengel	Theophrastaceae	
<i>Ardisia obovata</i> Ham.	Myrsinaceae	
<i>Antirhea acutata</i> (DC.) Urban	Rubiaceae	Mutton polly
<i>Antirhea coriacea</i> (Vahl) Urban	Rubiaceae	
<i>Catesbaea melanocarpa</i> Urban	Rubiaceae	Black Berry
<i>Genipa 153mericana</i> L.	Rubiaceae	
<i>Tabernaemontana citrifolia</i> L.	Apocynaceae	Milky Bush
<i>Brunfelsia 153mericana</i> L.	Solanaceae	Lady of the night
<i>Catalpa longissima</i> (Jacq.) Dum. Cours.	Bignoniaceae	
<i>Ambrosia hispida</i> Pursh	Asteraceae	
<i>Baccharis dioica</i> Vahl	Asteraceae	

SCHEDULE X*(Section***Penalties**

Paragraph	Prescribed Penalties
<i>(a)</i>	A fine not exceeding five thousand dollars
<i>(b)</i>	A fine not exceeding seven thousand dollars
<i>(c)</i>	A fine not exceeding twelve thousand dollars or imprisonment for six months, or both such fine and imprisonment
<i>(d)</i>	A fine not exceeding twenty thousand or imprisonment for one year, or both such fine and imprisonment
<i>(e)</i>	A fine not exceeding fifty thousand dollars or imprisonment for five years, or both such fine and imprisonment

Provided that where the offender, liable to a prescribed fine under any of the aforesaid paragraphs is a body corporate, the body corporate shall be liable to a fine not less than twice such prescribed minimum fine nor more than twice such prescribed maximum fine, and where the offender liable to a prescribed term of imprisonment under any other aforesaid paragraphs is a body corporate, the body corporate shall be to twice such imprisonment.

SCHEDULE XI**FORMS***(Section misc)***FORM 1****APPLICATION FOR A PERMIT TO SELL, HARVEST OR KEEP A PROTECTED
BIOLOGICAL RESOURCE OR GENETIC MATERIAL****1.** Name of Applicant

2. Address (or address of principal or registered office if a company)

3. Telephone number(s):

4. Species of biological resource

5. This application is for aSale[☐] Harvesting [☐] Keeping [☐] of the protected biological resource or genetic material**6.** Purpose for which the protected biological resource or genetic material is requiredTraditional purpose [☐] Scientific purpose [☐] Biodiversity protection [☐]Please explain

7. Describe the ecological impacts and human health impacts that are likely to result from the granting of the permit

8. Describe the proposed methods for minimising the impacts described in item 7

I hereby request a permit for the

[☐] sale [☐] harvesting [☐] keeping

of the protected biological resource or genetic material referred to above and hereby declare that the information contained in the above form is true and correct to the best of my knowledge,

information and belief. I undertake to inform the Ministry responsible for the environment immediately of any change to the information contained in the above form

Applicant

Date

FORM 2**PERMIT TO SELL, HARVEST OR KEEP A PROTECTED BIOLOGICAL RESOURCE
OR GENETIC MATERIAL**

1. Name of permit holder _____

2. Address (or address of principal or registered office if a company) _____

3. Telephone number(s) _____

4. Species of biological resource _____

5. Date and place of proposed importation _____

6. Ecological impacts and human health impacts that are likely to result from the granting of the permit _____

7. Proposed methods for minimising the impacts described in item 6 _____

I hereby certify that the

[] sale [] harvesting [] keeping

of the protected biological resource or genetic material referred to above is permitted to be undertaken in accordance with the conditions of this permit set out above, between the ____ day of _____, 20__ and that the ____ day of _____, 20__ .

Minister with responsibility for the Environment

Date

FORM 3

APPLICATION FOR A PERMIT TO IMPORT, TRANSPORT, STORE OR SELL A FOREIGN ORGANISM

1. Name of permit holder
2. Address (or address of principal or registered office if a company) _____

3. Telephone number(s) _____

4. Species of foreign organism to be imported, transported, stored or sold

5. Date and place of proposed importation

6. Reasons why importation of the foreign organism is required

7. Describe any impact on agricultural or forestry resources, or on any ecosystem in Antigua and Barbuda, that are likely to result from the importation of the foreign organism

8. List all diseases, viruses, biological strains and secondary organisms that are likely to be directly or indirectly introduced as a result of the importation the foreign organism

9. Describe the ecological impacts and human health impacts that are likely to result from the importation of the foreign organism

10. Describe the proposed storage and transportation methods that would ensure that the impacts described in item 7, the effects of the diseases, viruses and biological strains on the ecosystems of Antigua and Barbuda listed in item 8 and the impacts on human health described in item 9 are minimised _____

11. Describe the methods to be used for any scientific evaluation, sampling or harvesting

12. Describe the environment monitoring or management plans that to be established

13. Describe the nature, duration and extent of any expected commercial research and development plans relating to the foreign organism

I hereby request a permit for the

[] importation [] transportation [] storage [] sale

of the foreign organism referred to above and hereby declare that the information contained in the above form is true and correct to the best of my knowledge, information and belief. I undertake to inform the Ministry responsible for the Environment immediately of any change to the

information contained in the above form

Applicant

Date

FORM 4**PERMIT TO IMPORT, TRANSPORT, STORE OR SELL A FOREIGN ORGANISM**

1. Name of permit holder _____

2. Address (or address of principal or registered office if a company) _____

3. Telephone number _____

4. Species of foreign organism to be imported, transported, stored or sold

5. Date and place of proposed importation _____

6. Storage and transportation methods, and controlled use and release conditions required to be used

7. Methods to be used for any scientific evaluation, sampling or harvesting

8. Environment monitoring or management plans to be established and implemented

9. Contingency plans to be implemented in the event of any unintended release or use of the foreign organism or as a consequence of any unintended or unplanned impact upon the environment, human health, an ecosystem or any living organism _____

I hereby certify that the

[] importation [] transportation [] storage [] sale

of the foreign organism referred to above is permitted to be undertaken in accordance with the conditions of this permit set out above, between the ____ day of _____, 20__ and that the ____ day of _____, 20 .

Minister of Agriculture, Lands, Marine
Resources and Agro Industries

Date

FORM 5**APPLICATION FOR A PERMIT TO TRADE IN ENDANGERED SPECIES**

1. Name of applicant _____

2. Address (or address of principal or registered office if a company) _____

3. Telephone number _____

4. Endangered species for which a trade permit is requested

5. Nature of trade proposed

6. Date and place of proposed importation/exportation

7. State from which/to which the endangered species is to be conveyed

8. Any other State through which the endangered species is to be conveyed
9. Describe any restrictions imposed by a State referred to in items 7 and 8 on the trade in the endangered species
-

I hereby request a permit for the trade in the endangered species referred to above and hereby declare that the information contained in the above form is true and correct to the best of my knowledge, information and belief. I undertake to inform the Ministry responsible for the Environment immediately of any change to the information contained in the above form

Applicant

Date

FORM 6

PERMIT TO TRADE IN AN ENDANGERED SPECIES

1. Name of permit holder

2. Address (or address of principal or registered office if a company)

3. Telephone number _____

4. Endangered species

5. Date and place of proposed importation or exportation

6. Condition on Trade

I hereby certify that the trade in the endangered species referred to above is permitted to be undertaken in accordance with the conditions of this permit set out above, between the ____ day of _____, 20__ and that the _____ day of _____, 20 .

Minister Responsible for the Environment

Date

FORM 7

ACTIVITY STOP NOTICE

1. Name of Accused
2. Address (or address of principal or registered office if a company)
3. Telephone number
4. Nature of the Office for which stop notice is being issued
5. Date the offence occurred
6. Provisions of the Act or Regulations that have been contravened by the activity
7. Date the activity must cease
8. Comments

I hereby issue a stop notice for the activity referred to above and hereby declare that the information contained in the above form is true and correct to the best of my knowledge, information and belief.

Director of Environment

Date

FORM 8

PROHIBITION NOTICE

1. Name of Accused
2. Address (or address of principal or registered office if a company)
3. Telephone number
4. Nature of the Office for which the Prohibition notice is being issued
5. Date the offence occurred
6. Provisions of the Act or Regulations that have been contravened by the activity
8. Date the activity must cease
9. Comments

I hereby issue a Prohibition notice for the activity referred to above and hereby declare that the information contained in the above form is true and correct to the best of my knowledge, information and belief.

Director of Environment

Date

FORM 9

CONFISCATION NOTICE

1. Name of Accused
2. Address (or address of principal or registered office if a company)
3. Telephone number
4. Nature of the Office for which confiscation notice is being issued
5. Item(s) being confiscated
6. Date the offence occurred
7. Provisions of the Act or Regulations that have been contravened by the activity
8. Date the activity must cease
9. Comments

I hereby issue a confiscation notice for the item referred to above and hereby declare that the information contained in the above form is true and correct to the best of my knowledge, information and belief.

Environmental Officer

Date

FORM 10**WASTE DUMPING PERMIT APPLICATION**

1. Name of Applicant
 2. Address (or address of principal or registered office if a company)

 3. Telephone number _____
 4. Type of waste or matter for which a trade permit is requested
 5. Nature of waste or matter to be disposed
 6. Date and place of proposed disposal
 7. Manufacturer of and country in which the product generating the waste or matter was made
 8. Any other comment or information on the matter or waste
 9. Describe any known restrictions imposed by any State on the waste or matter being dumped
-
-

I hereby request a permit for the dumping of the waste/matter referred to above and hereby declare that the information contained in the above form is true and correct to the best of my knowledge, information and belief. I undertake to inform the Ministry responsible for the Environment immediately of any change to the information contained in the above form

Applicant

Date**FORM 11****PERMIT TO DUMP WASTE OR RESTRICTED MATERIAL**

1. Name of Permit Holder
 2. Address (or address of principal or registered office if a company)

 3. Telephone number _____
 4. Waste or Restricted Material
 5. Date and place of proposed dumping
 6. Conditions of dumping
-

I hereby certify that the dumping of waste/material referred to above is permitted to be undertaken in accordance with the conditions of this permit set out above, between the ____ day of _____, 20__ and the _____ day of _____, 20__ .

Minister

Date

SCHEDULE XII*(Section 94(5))***GENERAL FUNCTIONING AND OPERATIONAL PRINCIPLES OF THE
SUSTAINABLE ISLAND RESOURCES FRAMEWORK FUND (SIRF FUND) BOARD****I. Powers and Duties of the SIRF Fund Board**

(1) The SIRF Fund Board shall:

- (a) exercise and perform the functions, powers and duties of the Fund on its behalf, and be responsible for its effective and efficient administration;
- (b) have the power to do all other things which the Board determines are necessary and proper for the administration and operation of the Fund in order to enable the Fund to achieve its purpose.

(2) The SIRF Fund Board shall oversee the high-level activities of the Fund, including implementation of policy and operational guidelines, approval of projects supported by the Fund, strategic direction and reporting.

(3) While not in any manner limiting the generality of paragraphs (1) and (2), the SIRF Fund Board shall, inter alia:

- (a) manage the Fund in accordance with the rules of operation developed by the SIRF Fund Board in collaboration with the Accountant General;
- (b) pay the contributions to the Funds into a deposit or savings account opened with the consent of the Minister with responsibility for Finance at a bank carrying on business in Antigua and Barbuda with all interest if any, payable in respect thereof applied as income;
- (c) apply for tax-exempt status for the Fund in any jurisdiction;
- (d) ensure the sound management of money or other property vested in the Fund;
- (e) ensure that the money of the Fund is used solely to further its objectives and to meet the Funds' commitments under any agreement to which the Fund is a party;
- (f) make and enter into contracts or other arrangements for the carrying out of the purposes of the Fund, including contracts for works, the performance of services or the supply of goods or materials;
- (g) in collaboration with the Department, mobilize and negotiate funding for the Fund;

- (h) develop and approve procedures for the submission, consideration, approval, disbursement, management, monitoring and reporting on grants, loans and other funding supported by the Fund;
- (i) review and approve requests for grants and other funding activities supported by the Fund in accordance with the provisions of the Act and the Regulations;
- (j) oversee the investment of monies administered by the Fund to ensure the best return while achieving the provisions of the Act and these Regulations;
- (k) provide policy advice and directives relating to Fund activities;
- (l) promote and coordinate the work of the Fund;
- (m) periodically reviewing, as necessary, the Operational Manual, Business Plan and annual work plan for the Fund;
- (n) after consultation with the Minister with responsibility for finance, designate signatories for accounts, contracts and any other instrument that commit the resources of the Fund;
- (o) contract with an asset manager, investment consultant, custodian, registered agent or any other professional service provider that is engaged in the interest of sound operation of the Fund;
- (p) advise on the development of programmes under Thematic Funding Windows for the purposes of disbursement of monies from the Fund;
- (q) appoint or replace an independent external auditor for the Fund; and
- (r) review and approve the annual reports of the Fund.

(4) The SIRF Fund Board will make final decisions on which application for funding by the Fund are to be supported, but shall be guided and make their decisions on the basis of priorities and criteria defined in the National Environmental Management Policy and Action Plan

(5) Any act, matter or thing done in the name of, or on behalf of, the Fund by the SIRF Fund Board is taken to have been done by the Fund.

(6) No monies shall be paid out of the Fund's assets except with the approval of the Accountant General, and in accordance with any general or special direction, of the SIRF Fund Board.

II. Management of the SIRF Fund Board

The Board will convene at least once each calendar quarter at such times and in such places that the Board considers, by mutual agreement among his members, necessary for the efficient performance of its functions.

III. OPERATIONS OF THE FUND

Business Plan

(1) The SIRF Fund Board shall conduct its activities in accordance with a Business Plan prepared by the SIRF Fund Board on the advice of the Department and approved by the Cabinet.

(2) Pursuant to the provisions of sub-paragraph (1), the SIRF Fund Board shall, no later than three months after the commencement of this Act, prepare and deliver to the Minister a draft business plan specifying the following:

- (a) viable fundraising options for the Fund;
- (b) activities to be undertaken to raise monies for the Fund;
- (c) proposed investment policy in order to generate long-term sustainable financing for carrying out the objects of the Fund;
- (d) projected flow of monies that will result from the operations of the Fund;
- (e) the strategy that the Fund proposes to adopt for the next 5 years to further its objects;
- (f) the annual budget required by the Fund for the 5 year forecast for the Fund to carry out its objects;
- (g) the strategy for investing and utilizing the funds of the Fund;
- (h) the criteria that the Fund will meet when entering into funding agreements;
- (i) the performance indicators by which the Fund's achievement is to be measured;
- (j) the remuneration and allowances (if any) to be paid to the members of the SIRF Fund Board, the Secretariat and any Technical Evaluation Committee.

(3) The Business Plan prepared pursuant to sub-paragraph (1) shall be consistent with:

- (a) revolving funding priorities based on the relevant policies and plans;
- (b) environmental and social safeguard policy of the Department of Environment, and;

- (c) established criteria to ensure that the monies of the Fund are effectively distributed in an open transparent and coordinated approach to achieve the requirements of section 92 of the Act.

IV. Consideration of Business Plan by Cabinet

(1) Within sixty days of the receipt of the business plan from the SIRF Fund Board, the Minister shall, after consultation with the Minister with responsibility for Finance:

- (a) seek the approval of the Cabinet for the Business Plan if he is satisfied that it complies with the requirements of paragraph III (Operations of the Fund); or
- (b) refuse to endorse the business plan.

(2) Where the Minister refuses to endorse the business plan, the Minister shall return the plan to the SIRF Fund Board accompanied by reasons for the refusal, and requesting the SIRF Fund Board to revise and resubmit the business plan.

V. Amendment of plan

The SIRF Fund Board may amend any endorsed priority or strategy specified in its business plan only if it receives approval from the Cabinet as endorsed by the Minister.

VI. New plan to be prepared at certain intervals

(1) The SIRF Fund Board shall prepare a new business plan at least six months before the expiry of its existing business plan.

(2) If a new business plan is not endorsed before the expiry of the five years to which the business plan under which the SIRF Fund Board is conducting its activities relates, the SIRF Fund Board shall continue to conduct its activities in accordance with the priorities and strategies specified in that plan, in so far as is practicable, until the priorities and strategies specified in the new plan are endorsed.

VII. Financial year

(1) The financial year for the Fund shall be for the period commencing 1st January and ending on the 31st day of December in each year.

(2) The Chairman of the SIRF Fund Board shall prepare, sign and submit to the Accountant General within two months of the end of a financial year, statements of the SIRF Fund as at the end of the financial year.

(3) The statements shall include –

- (a) a statement of the assets and liabilities of the Fund;
- (b) a detailed statement of receipts by, and payments from the Fund; and
- (c) a statement of any investment of and any interests or dividends credited to the Fund.

VIII. Use of Fund monies

(1) The monies in the accounts of the Fund shall be used to fulfil the purposes of the fund set out in section 92.

(2) Without limiting the generality of subparagraph (1) and subject to paragraph XIII and the terms of any conditions governing the source of any monies deposited into the Fund, the monies shall be applied for any one or more of the following purposes:

- (a) expenses incurred or incidental to the administration and management of the Fund including –
 - (i) remuneration and other payments to the members of the Boards, Auditors and any committee established pursuant to these Regulations;
 - (ii) salaries, remuneration, allowances, pensions, insurance, gratuities and other benefits of the staff of the Secretariat or other persons employed in or in connection with the activities carried on by the Fund;
- (b) any other expenditure authorized by the SIRF Fund Board and used to achieve the purposes of the Fund.

(3) The Fund shall allocate a minimum of fifteen percent (15%) of the monies in the accounts of the Fund per annum for projects to be undertaken by Non Governmental Organisations subject to the approval of the SIRF Fund Board.

IX. Investment of Fund monies

(1) All monies that comprise the Fund and which do not have to be used immediately to defray cost related to the purpose of the fund or expenses of the Fund may be invested by the SIRF Fund Board in consultation with the Financial Secretary in such a manner as the Minister with responsibility for Finance may authorise.

(2) The Investment Committee established in accordance with section 101 shall give general and specific advice to the SIRF Fund Board on strengthening and diversifying its investment portfolio.

X. Borrowing by the Fund

(1) Subject to such general or specific conditions as the Minister with responsibility for Finance may specify, the SIRF Fund Board may borrow such money as it considers necessary to discharge its functions.

(2) Without limiting the generality of sub-paragraph (1), the Minister with responsibility for Finance may specify conditions with respect to –

- (a) the amount of a loan;
- (b) the sources of borrowing; and
- (c) the terms and conditions of a loan.

(3) Except as permitted by the terms of any accreditation agreement governing the Department, the SIRF Fund Board shall not pledge the assets of the Fund as security for any loan, and shall only do so with the written approval of the Accountant General.

XI. Accounts and Audit of the General Board

(1) The SIRF Fund Board shall keep proper accounts of all sums of money received and expended or invested in any form by the Fund and the matters in respect of which such receipts, expenditures or investments take place and the assets and liabilities of the Fund.

(2) The accounts of the Fund shall be subject to inspection by the Accountant General and the Director of Audit.

(3) The Audit and Risk Management Committee established in accordance with section 101 shall assist the Board of Directors in fulfilling its oversight responsibility with respect to the financial reporting process, the system of internal controls, the audit process and the process for monitoring compliance with laws and regulations.

(4) The Audit and Risk Management Committee shall appoint and manage the outside independent auditor.

(5) Without limiting the generality of subparagraph (3) the functions of the Audit and Risk Management Committee shall include:

- (a) establishing an adequate system of internal controls and preparation of financial statements;
- (b) advising on and overseeing the process for monitoring compliance with legal and regulatory requirements;
- (c) advising on and monitoring the risk appetite and tolerance of the Fund.

XII. Annual budget

The Board shall, not later than the first day of April in each year, prepare in such form as the Minister and the Minister with responsibility for Finance may direct, a budget for the next fiscal year which shall set forth:

- (a) projected revenue of the Fund from all sources;
- (b) costs for the administration of the Fund; and
- (c) costs of grants and other financial commitments to projects consistent with the purpose of the Fund.

XIII. Limits on administrative expenses

The Fund may use no more than ten percent (10%) of its annual budget for administrative expenses.

XIV. Recovery of money by Fund

Any fee or other money due to the Fund may be recovered as a civil debt in a court of competent jurisdiction.

XV. Certification of Funding Recipients

(1) Any agency, organisation, or individual that intends to apply for support by the Fund must first be certified in accordance with criteria and procedures established by the SIRF Fund Board pursuant to paragraph I (Powers and duties of the SIRF Fund Board).

(2) In developing criteria for the assessment of an application for certification pursuant to subparagraph (1), the SIRF Fund Board may require evidence of ability to meet the following requirements:

- (a) access to the human, technical and financial capacity necessary to effectively implement a project and to meet reporting and monitoring requirements of the Fund;
- (b) established financial systems that meet the minimum fiduciary requirements of the Fund;
- (c) internal management systems to manage the environmental and social requirements of the Fund; and
- (d) ability to meet any other criteria as set by the SIRF Fund Board from time to time.

XVI. Dissolution of the Fund

(1) The Minister may, on the advice of the SIRF Fund Board, dissolve the Fund by notice published in the official *Gazette* in the following circumstances only:

- (a) the money in the Fund is exhausted and no legal provisions exists whereby money may be paid into the Fund;
- (b) the objects for which the Fund was established has been fulfilled or cease to exist and in the opinion of the Minister there is no likelihood that any objects for which the Fund could lawfully be used will arise in the future;
- (c) it has become impracticable to achieve the objectives of the Fund.

(2) Subject to any outstanding contractual obligations for designated monies, any monies remaining in the account(s) of the Fund upon its dissolution shall be paid into the Consolidated Fund.

Passed by the House of Representatives
on the _____, 2019.

Passed by the Senate
on the _____, 2019.

.....
Speaker.

.....
President.

.....
Clerk to the House of Representatives.(Ag.)

.....
Clerk to the Senate.(Ag.)