

OUR CAVES

PROTECT. MANAGE. EXPLORE.

Belize Cave Management Policy 2025



Institute of Archaeology
National Institute of Culture and History





INSTITUTE OF ARCHAEOLOGY

NATIONAL INSTITUTE OF CULTURE AND HISTORY

BELIZE CAVE MANAGEMENT POLICY

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Glossary of Terms

Terminology and expressions used in this policy document are defined as follows:

National Institute of Culture and History (NICH): the statutory body established under the NICH Act Chapter 331 of the Substantive Laws of Belize Revised Edition 2024 comprised of four institutions: the Institute of Archaeology, the Museum of Belize, the Institute for Social and Cultural Research, and the Institute of Creative Arts.

Institute of Archaeology (IA): is the Institute of Archaeology established under Part 6 section 34 of the NICH Act Chapter 331 of the Substantive Laws of Belize Revised Edition 2024.

Ancient Monuments: means any structure or building erected by man or any natural feature transformed or worked by man, or the remains or any part thereof, whether upon any land or in any river, stream, or watercourse or under the territorial waters of Belize, that has been in existence for one hundred years or more.

Antiquities: means any article manufactured or worked by man, whether of stone, pottery, metal, wood, glass, or any other substance, or any part thereof–

- (i) the manufacture or workmanship of which belongs to the Maya civilisation, being of an age of one hundred years or more; or
- (ii) (ii) 20 of 2003. the manufacture or workmanship of which belongs to a civilisation other than the Maya civilisation, being an article which is of an age of one hundred years or more.

Cave: refers to a class of **ancient monuments** constituting but not limited to any rock shelter, alcove, niche and all subsurface cavities, tunnels or chambers.

Archaeological Research (AR): is the scientific study of recent and ancient human societies through mapping, excavation, and analysis of their material culture and landscape.

Regulatory Agencies: refers to all Government Ministries, Departments and Institutions authorised by law to represent the Government of Belize.

Co-management: means joint governance of an ancient monument (cave) through formal agreements between the government (IA-NICH) and non-governmental organisations, local communities and the private sector, where management responsibility and accountability are equitably shared to

safeguard the integrity of Belize's archaeological resources under Section 68A, 68B, and 68C of the NICH Act Chapter 331.

Co-Management Agreement: means a comprehensive legal document which delineates the agreement between the parties for shared responsibilities of the *co-management* of an ancient monument.

Concessionaire: refers to the name of the person, company, or group of individuals authorised to conduct business in an archaeological reserve.

Management Plan: a document that outlines the management objectives of a designated archaeological reserve, identifying its context, management scope, stakeholders, and potential risk; ensuring its compliance with local, national and international environmental and archaeological commitments.

Non-governmental Organization (NGO): The term refers to organisations, duly established under the NGO Act Chapter 315 of the Substantive Laws of Belize.

Developer(s): refers to any person, company, or entity engaged in any development as the principal actor rather than an agent or contractor.

1. CONTEXT

As archaeological sites, all caves are protected by the National Institute of Culture and History Act, Chapter 331 of the Subsidiary Laws of Belize, Revised Edition 2024. In Belize, caves are designated as important archaeological sites because the ancient Maya used them for ritual purposes, and they were used as temporary campsites by Paleo-Indian and Archaic populations. Geomorphological and Biological research has also established that caves in Belize continue to change over time and contain many unique species of troglifauna, therefore they are also considered very fragile biogeographic environments.

Most caves in Belize are located within the Cretaceous limestone foothills, a distinctive karst landscape. According to geologist George Veni (see Stone 1995: Appendix A), “karst” is a landscape developed by the dissolution of the bedrock and the loss of water to the subsurface, typically via features such as caves and sinkholes. Belize is a perfect example of a tropical karst environment, an area in which most Belizean caves are located and most of “these caves were formed by large volumes of tropical floodwaters - chemically aggressive for lack of saturation with respect to limestone - flowing off the Maya Mountains to carve huge tunnels” through the lower-lying karst hills (Veni 1995:246). Given this geological morphology, it is not surprising that Belize contains “some of the world’s largest known cave passages, as in the Chiquibul Cave System” (Veni 1995:246).

During the last two decades, the use of caves as adventure tourism destinations has grown exponentially. The Institute of Archaeology manages the following three caves: Actun Tunichil Mucnal (ATM) Natural Monument, Barton Creek Archaeological Reserve, and Nohoch Ch’een Archaeological Reserve legally opened for public visitation. Furthermore, the Belize Audubon Society manages two caves as tourist destinations within the Saint Hermans Blue Hole National Park. Additionally, several tour operators and landowners have been exploiting caves for their tourism potential without the formal authorisation of the IA. As established by the NICH Act, caves are ancient monuments - archaeological sites and it is, therefore, the legal mandate of the IA to conduct research, regulate their sustainable use, and establish policies to ensure their protection.

As the demand for cave tourism continues to increase in Belize, it is also imperative that we respond proactively and imminently to address the proper management of these sites. One approach is the establishment of collaborative management agreements between the IA-NICH and qualified stakeholders to ensure the protection of these unique archaeological sites and fragile natural environments.

2. Purpose

The purpose of this policy is to guarantee the protection and conservation of ancient monuments – i.e. caves – for the benefit and enjoyment of all people

while fostering cooperation among those who use the caves for scientific, educational or recreational purposes. This cave policy will ensure that Belize's archaeological and natural resources are protected and managed sustainably and promote the responsible use of caves as an integral part of the tourism industry.

3. POLICY CONSIDERATIONS

The Institute of Archaeology acknowledges that caves provide an important and irreplaceable archaeological and natural resource of scenic, scientific, educational, recreational, and historic interest. As such, the management and use of caves must be regulated to preserve unimpaired, for perpetual enjoyment, their archaeological, biological, and geological values.

The IA-NICH must establish proper research, conservation, and management protocols to ensure appropriate present and future conservation of caves. This can be done professionally and sustainably through a close working relationship between the IA-NICH, other governmental regulatory agencies, private landowners, NGOs, cavers, tour guides, tour operators and conservation and tourism agencies. Through such partnerships, the external and internal threats to cave environments can be mitigated. Additionally, the tourism community must assume greater responsibility for the practical conservation of the archaeological and natural features in cave systems.

This cave conservation policy has been formulated in consultation with the statutory conservation agencies and the tourism community.

4. POLICY LEGISLATION

This policy recognises that the protection of caves is vested in the Government of Belize and recognises that the National Institute of Culture and History through the Institute of Archaeology is the legal authority with responsibility for the management of all caves as mandated by the National Institute of Culture and History (NICH) Act Chapter 331 of the Substantive Laws of Belize, 2000, Revised Edition 2024.

Section: (37) All ancient monuments and antiquities wherever situate, whether upon any land or in any river, stream or watercourse, or under territorial waters of Belize, shall absolutely vest in the State.

Therefore, whether on private or public property, caves can only be utilised as tourism destinations following the explicit written approval of the Director of the Institute of Archaeology as established in Section 68A of the NICH Act.

Where specific sites are deemed archaeologically or environmentally sensitive or too fragile for tourism purposes, and/or pose a risk to human safety, the Institute of Archaeology will ensure that those sites remain protected from human disturbance by not designating them for public visitation as mandated by Section 63(1) of the NICH Act.

5. Policy Scope

This policy shall be applicable to all caves within the country of Belize. Thus, all current cave sites being used for public visitation, including unsanctioned cave destinations operating before the implementation of this policy, and any future cave destinations, must comply with the rules, regulations and conditions of this policy. It shall be the direct responsibility of the IA-NICH to implement this policy effectively as established under Section 63(2) of the NICH Act, and the responsibility of existing and new partners to ensure compliance and adherence to the policy.

6. POLICY STATEMENT

The Institute of Archaeology is committed to the sustainable development of Belize's archaeological and natural resources. It recognises the need to work closely and in partnership with regulatory agencies, NGOs, concessionaires, developers and other entities to ensure that ancient monuments, i.e. caves, are managed sustainably for future generations.

7. GENERAL POLICY OBJECTIVE

Through an effective management program, this Cave Policy will provide for the identification, research, protection and sustainable use of caves in Belize. The Institute of Archaeology is committed to seeking an equilibrium between archaeological resource management, environmental protection and conservation, maintaining the integrity of all caves, and the development and promotion of Belize's eco-tourism plans and objectives.

8. SPECIFIC POLICY OBJECTIVES

The Institute of Archaeology has the protection of all caves as the focus of this policy. It is the responsibility of the Institute of Archaeology to ensure that professional standards and adequate safety measures are enacted to enhance visitors' experiences and provide protection for Belize's caves while simultaneously promoting cave tourism as an economically viable product.

Aims

- 1) To create proper cave management standards in order to protect Belize's archaeological and natural resources for future generations.
- 2) To utilise Belize's archaeological and natural resources for educational and tourism purposes.
- 3) To facilitate responsible archaeological research in compliance with the IA's Archaeological Research Policy and Conditions.
- 4) To protect and preserve biodiversity by minimising human disturbance. Maintain connectivity between the surface and sub-surface to provide full access to cave life.
- 5) To regulate and manage the use of caves and to provide adequate safety measures for cave users.

- 6) To provide a space for underground recreational activity that will provide socioeconomic benefits to all Belizeans.
- 7) To address the increased demand for recreational activities and provide alternative routes for recreational tourism.
- 8) To ensure an equal opportunity for the use of caves as tourist destinations.
- 9) To ensure that the use of cave systems is carried out safely and sustainably while at the same time ensuring the integrity and preservation of these fragile environments.

9. REGULATIONS/POLICIES FOR CAVE MANAGEMENT

The fundamental purpose of a declared cultural archaeological site or natural monument is to conserve its archaeological features, as well as, its natural scenery and biodiversity, for the benefit and enjoyment of all, in a manner that will leave them unimpaired for the enjoyment and socioeconomic benefit of all.

The NICH Act recognises that caves are an invaluable and irreplaceable part of our archaeological and natural heritage and may therefore be threatened by improper use and increased recreational demand.

The following are established policies for the management and co-management of caves within Belize.

- 1) In determining public use and access to any cave, the IA-NICH must:
 - a. first and foremost, ensure its proper documentation and inventory, including those caves that are presently being utilised for tourism purposes or any other purpose; additionally, the IA-NICH reserves the right to request and conduct more in-depth research analysis and/or assessment of a cave where necessary prior to considering the cave for public visitation.
 - b. consider the impacts that any proposed access may have on its ecology (including systems and processes), biota (including plants and animals, especially threatened species), hydrology (water resources) and its water quality, geodiversity, cave climate and cultural heritage significance. Special efforts should be made to preserve the integrity of the ecological and hydrological systems within caves and any cavernous terrain.
 - c. consider the cave's resilience to public access, its challenges to public safety, and regional, national and global significance.
- 2) In mitigating and/or minimising the negative impacts on all caves, no alteration, modification or addition shall be done to any cave without a comprehensive study of the impact of such action, including input from knowledgeable persons specifically experienced in the exploration and scientific study of caves and cave resources. Where modification and/or alterations have been done to any cave, the IA will consider

such and determine the course of action based on any possible negative impact that the modification, alteration and addition may have or can cause on the long-term preservation and sustainability of such cave. In addition to the above, formal approval and endorsement from the IA/NICH must be obtained before any alteration or modification is done within any cave site.

- 3) The IA-NICH shall classify and categorise the use of caves depending on their archaeological importance/significance and risk values. Only class 1 to class 4 caves will be considered for public visitation (see Section 10 for classification). Class 5 caves are considered medium risk and therefore, will be considered for visitation with certain conditions, while class 6 caves are considered high risk and of high sensitivity and therefore will not be considered for public visitation.
- 4) All caves opened for public visitation must have a comprehensive management plan in place prior to opening, and the plan must highlight the protocols for the conservation and protection of the cave's archaeological and natural resources, as well as safety measures.
- 5) All Cave Co-managers, Tour Operators, and Tour Guides must comply with the laws and regulations of Belize, such as the National Protected Areas System (NPAS) Act, Tourism and IA-NICH policies, and any other relevant laws and regulations.
- 6) Cave Co-Managers, Tour Operators, and Tour Guides must exercise the tourism industry's best business practices and the Institute of Archaeology's regulations for sustainable use and protection of the cave.
- 7) Caves shall be managed in accordance with IA-NICH's and other government agency's policies and regulations.
- 8) All caves opened for public purposes will not be monopolized by any Tour Operator or Co-manager. Caves opened for public use must foster **inclusion and equity**, providing economic opportunities for all while at the same time preserving and promoting cultural heritage.

10. CAVES CLASSIFICATION

All caves in Belize will be classified and categorised by the IA-NICH based on their accessibility, health risk, type, and archaeological, geological and environmental significance. Those designated as tourist destinations will be evaluated based on their prior archaeological research, their archaeological and natural sensitivity, tourism potential, and the visitors' health and safety risks. The Institute of Archaeology has established 6 categories of caves as stipulated below:

Class 1 Caves (e.g. Rio Frio Cave)

1. Accessible with limited or no use of specialised equipment.
2. Tours will have minimal disruption to the cave flora and fauna

3. Tours will have minimal negative impact on the cave's archaeological resources
4. Tours will have minimal negative geological impact
5. Can be visited without a tour operator or tour guide.

Class 2 Caves (e.g. St. Herman's Cave-excluding cave tubing)

1. Caverns are not very complex and there are short designated trails.
2. Tours will have minimal disruption to the cave flora and fauna
3. Tours will have a minimal negative impact on the cave archaeological resources
4. Tours will have minimal negative geological impact
5. Generally, no water streams are present in the cave systems.
6. Requires some specialised equipment and a tour guide.
7. Guide to guest ratio is 1:6

Class 3 (Dry Caves) Limit time in this type of cave (e.g. Actun Chapat)

1. Such caves are a bit more complex, with little to no water and have the potential for exposure to deadly diseases such as histoplasmosis and Chagas disease.
2. Such caves have the potential for encounters with unfriendly and venomous creatures such as snakes.
3. Tours will have minimal disruption to the cave flora and fauna
4. Tours will have a minimal negative impact on the cave's archaeological resources
5. Tours will have minimal negative geological impact
6. Many formations are fragile which makes for dangerous handholds when climbing within the caves.
7. Requires specialised equipment and a guide trained in advanced cave techniques.
8. Guide to guest ratio is 1:6

Class 4 (A) (Wet Caves) (e.g. Barton Creek, Nohoch Ch'een, St. Herman's)

1. Presence of water, which can often be deep and fast-flowing.
2. Such caves usually flood during the rainy season (which needs to be regularly and routinely monitored).
3. Given the humid environment, extended visits inside such caves pose a high risk of hypothermia.
4. Tours will have minimal disruption to the cave flora and fauna
5. Tours will have a medium negative impact on the cave's archaeological resources
6. Tours will have a medium negative geological impact
7. Rocks can be difficult to see below the water surface.
8. Surfaces can be slick making climbing risky.
9. Requires specialised equipment and a guide trained in advanced cave techniques and swift water rescue.
10. Guide to guest ratio is 1:6

Class 4 (B) (Wet Caves) (e.g. Actun Tunichil Mucnal (ATM))

1. Presence of water, which can often be deep and fast-flowing.
2. Such caves usually flood during the rainy season (which needs to be regularly and routinely monitored).
3. Given the humid environment, extended visits inside such caves pose a high risk of hypothermia.
4. Tours will have medium disruption to the cave flora and fauna
5. Tours will have a high negative impact on the cave's archaeological resources
6. Tours will have a medium negative geological impact
7. Rocks can be difficult to see below the water surface.
8. Boulders can be slick, sharp and steep making them difficult to climb.
9. Slick surfaces and strong water pressure can make traversing the cave risky.
10. Requires specialised equipment and a guide trained in advanced cave techniques and swift water rescue.
11. Guide to guest ratio is 1:6

Class 5 (Sink Holes and Vertical Caves) (e.g. Petroglyph Cave which is also a Wet Cave, and Black Hole Drop)

1. Sink Holes require climbing or rappelling/ascending, which can make it difficult to get people in and out of the cave. This can be problematic in instances where someone gets injured.
2. Tours will have medium to high disruption to the cave flora and fauna
3. Tours will have a medium to high negative impact on the cave's archaeological resources. Sink Holes typically feature a continuous flowing water system.
4. Tours will have a medium negative geological impact
5. Complex caverns.
6. Extremely slippery surfaces with the potential of rock fall.
7. Requires specialised equipment and 2 guides trained in vertical cave and rope techniques (will require special permits/clearances).
8. Guide to guest ratio is 2:6

Class 6 (HIGH Risk Cave) – for a cave to be listed as high risk, it does not have to include all of the listed categories, once any of the 8 listed is identified the cave will not be opened for public visitation.

1. These caves are highly populated by bats and/or chagas and have a risk of exposure to deadly diseases.
2. Has transboundary issues and therefore is deemed as a high security risk for visitors.
3. Caves with unstable rocks that pose potential life-threatening hazards to visitation.
4. Caves that are logistically inaccessible due to isolation, remoteness, poor communication or tough terrain
5. High Carbon Dioxide Level (>1%CO₂)/ Lower Oxygen Level (<18% O₂).
6. High Sulphur or Hydrogen Sulphide Levels (<10 PPM).

7. There is an abundance of archaeological resources resulting in a high possibility of tours negatively impacting them.
8. Limited room to establish a designated tour path without affecting archaeological or geological features.
9. Tours will have high disruption to the cave flora and fauna.
10. Tours will have a high negative geological impact

11. CONSERVATION AND RESEARCH

The Institute of Archaeology shall, in accordance with the NICH Act, Revised Edition 2024, process all applications for scientific archaeological research permits within any cave system whether or not the said cave system is subjected to any form of collaborative management.

The Institute of Archaeology in accordance with the NICH Act will also be responsible for all management activities relating to conservation within any cave system in conformance with the ratified UNESCO Convention *Concerning the Protection of the World Cultural and Natural Heritage 1972* charters for conservation and protection of ancient monuments.

12. LICENCE, REGISTRATION AND TRAINING

“Cave Tourism” is a unique and specialised recreational activity. To be competitive with the rest of the world, with no risk of damage to cave resources, and to ensure professional standards in our tourism industry, specialised training and certification must be completed by cave guides to ensure that Belize is providing and adhering to international standards.

This policy requires that all tour guides involved in cave tourism must receive specialised training provided by the IA-NICH and/or by authorised Archaeologist(s), accredited by the IA; be licensed and be registered by the IA-NICH to conduct tours relating to the use of cave site as tourism destinations. This license is in addition to the standard tour guide license issued by the Belize Tourism Board (BTB). Because of the high risks in many caves’, refresher courses will be required at given intervals. This is to ensure the continuity of best cave practices.

The IA-NICH will determine the relevant components of the curriculum and coordinate the training sessions to ensure all applicants receive certification and license based on successful completion of the training course. The IA-NICH reserves the right to establish the criteria and standards for cave certification and licensing.

13. SAFETY AND RESCUE

In keeping with the requirement of international standards for cave tourism, a specialised Cave Rescue Team (CRT) will be established for each region in the country to respond to cave emergencies. The IA in close collaboration with the Ministry of Tourism will establish the CRT. This is necessary to

ensure that in the event of any accidents or emergencies within any cave system, there are protocols that can be implemented to alleviate a potentially disastrous situation.

The Cave Rescue Team must be composed of relevant entities with the technical capacity in the area, inclusive of the National Emergency Management Organization, the Belize Fire Department, the Belize Police Department, the Belize Tourism Police Unit, the Belize Defence Force and the Coast Guard. Training must be provided to this team as recommended by the IA.

14. VISITORS EXPERIENCE AND RESOURCE PROTECTION

The IA will implement the relevant monitoring and evaluation mechanisms to assess and evaluate the status of the caves and determine their carrying capacity to mitigate the possible detriment of the physical, biological, and archaeological environment. In addition, visitor evaluation will be conducted to determine visitor satisfaction

The number of tours per day will be regulated based on the specific requirements for each cave site considering the available and proposed infrastructure and the physical limitations of the cave system

Where necessary a reservation system will be established to regulate and monitor cave activities, to ensure the sustainable use of all caves opened for visitation.

15. COLLABORATIVE MANAGEMENT (Co-Management)

Where it is deemed necessary the Institute of Archaeology will enter into co-management agreements with private and public stakeholders for the use of cave sites as tourist destinations. Under such agreements and with guidance provided by this cave policy, the IA-NICH will grant managerial responsibility for the direct administration of these sites to designated stakeholders/partners as per Co-Management Agreement (APPENDIX A).

As part of any co-management agreement, the Institute of Archaeology shall:

- 1) Conduct an archaeological survey, inventory, and investigation of a cave prior to it being opened for public visitation or before granting a co-management agreement. The archaeological study will produce information that will be used for making informed management decisions by both the IA and the Co-manager.
- 2) Support the installation of signs that inform visitors that it is illegal to move, remove and/or damage antiquities within or from the cave sites.
- 3) Provide technical expertise to ensure the effective management and development of the cave.

- 4) Conduct specialised training programs for tour guides and operators, with specific training catered to particular cave sites.

As part of any collaborative agreement, the collaborative partner shall:

- 1) Facilitate the archaeological survey, inventory, and investigation of a cave prior to it being opened for public visitation or before granting a co-management.
- 2) Provide security from trespassers and other unauthorised entry into the cave site(s), and assist with the enforcement of regulations for public use of the cave(s).
- 3) Provide a system of communication, telephone service or radio, to emergency agencies (CRT) and regulatory institutions to ensure visitor safety and destination management.
- 4) Provide proper access to the site and adequate parking areas in accordance with environmental standards and regulations. In general, hiking and horseback are the preferred methods of accessing cave destinations.
- 5) Provide the necessary infrastructures and amenities such as bathrooms, picnic areas, rest areas, trails etc. for visitor use.
- 6) Establish proper informational signs to educate guests on cave use, restrictions, accessibility, and liabilities.
- 7) Put in place a proper and functional solid waste management system for the removal and disposal of garbage as is required by the Solid Waste and Environmental regulations.
- 8) Maintain a robust record of daily visitation in accordance with IA-NICH standards and financial management policies.

16. IMPLEMENTATION AND MONITORING

The Institute of Archaeology is the agency directly responsible for the implementation of the Cave Management Policy.

Management of cave sites will be carried out by the Institute of Archaeology and, where agreed to, in partnership with other regulatory entities, NGOs and private stakeholders.

The Institute of Archaeology, with the support of the Belize Tourism Board, the Belize Police Department and other relevant enforcement agencies, will conduct monitoring and enforcement to ensure that all pertinent laws and the cave management policy are adhered to.

The Institute of Archaeology will also reserve the right and option to amend and/or modify this cave policy when and if it deems it necessary. Any amendments and modifications will be made in consultation with co-managers and partners.

17. OFFENCE AND PENALTIES

The Director of the Institute of Archaeology is empowered to formulate such policies to govern the sound administration, protection, management and use of archaeological resources as an integral part of the tourism industry.

Failure to comply with any of these policies will result in criminal prosecution. If found guilty of an offence, the guilty party will be subjected to fines and/or imprisonment as specified by the National Institute of Culture and History (NICH) Act Chapter 331 of the Substantive Laws of Belize, 2000, revised edition 2024.



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