



## CASE STUDY

# Barbados: Collaboration and enforcement - the missing pieces of the puzzle in managing the Graeme Hall Swamp



## Summary

The Graeme Hall Swamp is linked to the St. Lawrence Lagoon and is the last remaining coastal wetland in Barbados. The wetland has been designated as a Natural Heritage Conservation Area and has also been established as one of two Caribbean Coastal Marine Productivity Programme (CARICOMP) monitoring sites in Barbados. The Graeme Hall Watershed, located in the south of Barbados, spans 1,156 acres.

## Background

The Graeme Hall Watershed, located in the south of Barbados, spans 1,156 acres. The most significant element of this watershed is the Graeme Hall Swamp, situated in Worthing, Christ Church. The swamp covers 91 acres, divided by a causeway into an eastern and western section. The 56 acre, eastern section is owned by the Barbados Government while the remaining 35 acres is privately owned and under the management of the Graeme Hall Nature Sanctuary (GHNS). The wetland has the following values: biodiversity, recreation; education; flood control; cultural and heritage value; and bequest values.

There are several sources of economic, social and environmental concerns within the watershed: agricultural fields; residential areas; sewerage treatment facility; and tourism activities on the nearby beach.

Given the stresses on the ecosystem the GHS closed its doors to the public in 2009 and has not

opened for visitation since. The following problems manifest from a weak management practices and low enforcement of the current national legislation: There is no exchange between the wetland and the sea; There are no adequate buffers to mitigate the effects of storm water from nearby residential, commercial and agricultural areas on the quality of water in the wetland; and There is the threat of effluent discharge into the wetland from the nearby sewage treatment plant, given an emergency situation.

## **Actions taken**

Several pieces of legislation have set the foundation for the protection of the wetland. This intergovernmental treaty adopted on February 2, 1971 covers all aspects of wetland conservation. Under this treaty all Contracting Parties must include wetland conservation considerations through the concept of “wise use” into their nation land use planning. The Graeme Hall Swamp was designated a RAMSAR site on December 12th, 2005 . The Convention on Biological Diversity (CBD)

was open for signature at the UNCED Earth Summit in 1992. It is the largest environment convention with the following three primary objectives:

1. Conservation;
2. Sustainable use; and
3. Fair and Equitable sharing of benefits from utilization of genetic resources.

The GHNS has funded several studies on the watershed to quantify the impacts of land use on the quality of life in the ecosystem, as well as the value of the wetland to the country, its people and its economy. In addition, the Government of Barbados (GoB), has conducted several studies on the area establishing the need for a “Master Plan for the Graeme Hall Swamp and Associated Coastal Ecosystems”. The public has been engaged through awareness initiatives. However, due to the challenges faced by the major stakeholders, the wetland continues to degrade. The legislation has not been enforced and the actions of the GHNS and general public were not enough to prompt action by the Barbados Government.

## **Outcomes**

The current actions are somewhat consistent with an Integrated and Adaptive Water Resource Management (I/AWRM) approach, in that the legislation and policies established do offer some level of protection to the wetland. This is mainly seen by the Government of Barbados' action to establish the wetland, in theory, as a Natural Heritage Conservation Area and Biodiversity Reference Area, recognizing it as the last remaining of its kind on the island. Similarly, the research and public awareness initiatives promoted stakeholder participation and collaboration, which are key to the success of I/AWRM. This was made evident in 2007, where over 6,000 Barbadians signed a "Friends of Graeme Hall" petition in support of transforming the wetland into a 240 acre National Park.

However, without the enforcement of legislation and policies established, the wetland is still under the threat of pollution via contaminated surface runoff and illegal dumping. Likewise, the petition alone was not enough to prompt Government to enforce the legal instruments due to the complexities and existing challenges of balancing the wetland's needs with the competing demands of its environs. Furthermore, the economic implications of enforcing these regulations could be seen as significant.

## **Lessons Learned**

The establishment of legislation is only one step in water resources management as without the political will to enforce the legislation, little progress can be made towards the wetland's restoration.

Indeed, numerous, but scattered actions were taken by the individual stakeholders, however, in order to develop a truly sustainable and mutually beneficial solution there is need for an integrated masterplan, developed with input from both stakeholders.

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