

# THE WETLANDS OF GRAEME HALL



## Series 1:

# THE CHALLENGE TO CONSERVATION POLICY

BY  
Dr. Allan N. Williams

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## 1. INTRODUCTION

The Graeme Hall Wetlands is an oasis of natural wealth within the densely populated South Coast of Barbados. This landscape has undergone significant man-made modifications of its original characteristics. This includes a man-made lake and an extensive mangrove area that was originally part of a 373 acre Graeme Hall plantation; a footpath/road that dissects the area into a western quadrant (owned by Graeme Hall Nature Sanctuary) and an eastern quadrant owned by the Government of Barbados. Surrounded by housing developments, commercial tourism establishments and agricultural lands, this wetland maintains its critical role in the coastal ecosystem in spite of its separation from the sea by the development of Highway 7, the major South Coast traffic artery.

Not to be under-valued are the linkages between the ecological characteristic of the Graeme Hall Wetlands and its multiple roles in sustaining tourism activities in the south west coast; supporting the quality of life and maintaining open green spaces and lower population density in the Parish of Christ Church; and avoiding a major catastrophe of sewage contamination of the beaches and coastal zone of the most important location of stay-over accommodations in Barbados.

Finally, the importance of this landscape has strong historical roots in the 1,158 acre Graeme Hall Watershed which is one of the largest of nineteen (19) Water-Catchment Areas in Barbados. The Graeme Hall "National Park Watershed Management Plan", describes this area as follows:

*"There are no other watersheds in Barbados with such recognized diversity, where a mangrove wetland, a seagrass bed, and a shallow nearshore hard coral reef can be found in close proximity and this makes this Watershed unique in Barbados and therefore it is necessary to ensure that it be preserved without any further ecological.*

An assessment of the value of the Graeme Hall Wetlands leads us down two parallel streams. The more important is the characteristics and functions of the 82.11 acres of wetlands, internationally recognized (Ramsar Site) as the last remaining complete ecosystem of its type in Barbados<sup>1</sup>. The second stream, is an appreciative look at the value of the infrastructure that has been developed by the Graeme Hall Nature Sanctuary (GHNS) which allows the Nature Sanctuary to pursue a public restoration, conservation, and education agenda to help visitors and citizens alike to appreciate the value of the Graeme Hall Swamp

## 2. THE VALUE OF WETLANDS

Human welfare and indeed human survival has been historically served by the services of wetlands. But in this concept of value of services there are two world views. The first is the world of market values in which the classical measure of economic value of such a resource is how willing are we as individual citizens to pay for it. But there is also a world of values that go beyond the ability of our markets to measure. This is the world in which the large spatial dimension of the resource tells us that this is not a case of substitutability. It is the world in which the changes in the physical characteristics of the resources signals to us slow but permanent changes in our universe. It is the world in which the things we do not know about the resource may be more valuable than the little we are able to understand at this time. These are the indicators that can direct policy and practices to preserve, enhance and sustain human welfare.

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<sup>1</sup> This characterization is confirmed in the Master Plan for Graeme Hall Ecosystem, Coastal Zone Management Unit, Ministry of Energy and the Environment, September 2007. p.2

### 3. THE GHNS MANDATE

The primary mission of the Graeme Hall Nature Sanctuary is **conservation**, supported with education and research. The Graeme Hall Wetlands have many features that are worthy of conserving. The most commonly recognized ones in the literature on Graeme Hall are:

- a) It is the last remaining mangrove forest in Barbados
- b) It is one of only three primary roost areas for migratory and native water-birds in Barbados within the Eastern Caribbean Flyway.
- c) It is a "living laboratory" offering working opportunities to researchers and scientists to examine native Barbados ecosystems
- d) It provides practical working knowledge of how changes in human population and the built environment in Barbados has influenced issues relating to aquifer and surface water management, drained wetlands, wetland recreation, coastal zone management, urban sprawl and agriculture.
- e) The grounds of the GHNS are an excellent example of xeriscaping i.e. landscaping in a way that does not require supplemental irrigation.

The last one is an observation from the landscaping achieved in the visitors center of the Graeme Hall Nature Sanctuary. This system is promoted in areas that do not have easily accessible supplies of fresh water, and is catching on in other areas as climate patterns shift.

### 4. THE CONSERVATION IMPERATIVE

Conservation as a national endeavour is not new to Barbadian society. The Barbados National Trust (1960) has worked to preserve and protect the natural and artistic heritage of Barbados and to increase public awareness of the country's natural and artistic heritage. What is new in Graeme Hall is a conservation drive that includes land that has alternative and competing uses.

There are two challenges to the successful conservation of the wetlands at Graeme Hall. The first is that it will require the nation coming to the consensus that ***Wetlands have great value in the services they provide to the nation and economy.*** This is actually the principle underlining the Ramsar Convention to which Barbados is a signatory, and which plays a significant role in our assessment of Graeme Hall Wetlands. The view of wetlands (read swamp) as wastelands arises from ignorance or misunderstanding of the value of the functions, services and linkages that these resources provide in the social and economic welfare of the adjoining community and the nation as a whole. In the case of the Wetlands of Graeme Hall, it requires some metrics to demonstrate that these lands are of greater value to society as wetlands than in any other alternative use.

The second challenge is treat Wetland **preservation, restoration and maintenance as legitimate land use issue.** To view wetlands as lands awaiting improvements on the drainage and irrigation technology to make them useful is to deny the natural evolution of that landscape and the surrounding geographical space. These wetlands have been providing these services in a natural setting.

However, with wetlands, we are usually forced to operate in a "less than full-knowledge situation" in respect to assessing the costs and benefits of their multiple functions. The dilemma is that we may be forced to conserve a natural asset even if at the present time we do not know all of the risks or

the potential loss from doing otherwise. This is known as the *precautionary principle*.<sup>2</sup> Thanks to the mission and activities of the Graeme Hall Nature Sanctuary, we are able to observe and study the significance of the Graeme Hall Wetlands as defined by its spatial, cultural and historical location.

## 5. CONCLUSION

The visual image of the Graeme Hall Wetlands suggests a landscape that can become the “Central Park” of the country of Barbados. Restoration and habitat protection can be effectively accomplished through private commitments. As the Graeme Hall Master Plan has observed, “*once the Graeme Hall Nature Sanctuary began its restoration and development of the western section in the early 1990s, indiscriminate use of the swamp was severely curtailed.*”<sup>3</sup> Sustainability of geographic and ecological features of this landscape, however, requires a tangible and significant response from the Government of Barbados to counter any indiscriminate land use practices in the protective zone as well. In our next series “**Graeme Hall Wetlands: The Landscape**” we examine the inter-locking land tenures and how the revealed land use intentions of the multiple land owners raises the urgency for a policy that focuses on achieving a high degree of **co-stewardship**. But co-stewardship can only be achieved when the common obligations are established in a legal framework governing the resource.

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<sup>2</sup> The precautionary principle is evident in such international agreements as the Montreal Protocol on substances “likely” to damage the ozone layer. See *Economic Valuation of Wetlands: A Guide for Policy Makers and Planners*, The Ramsar Library, 1997, Box 3.1 p.18.

<sup>3</sup> Master Plan for the Graeme Hall Coastal Ecosystem, Coastal Zone Management Unit, Ministry of Energy and the Environment. September 2007, p.3.