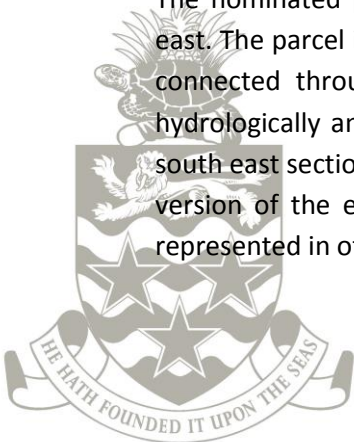


# Terrestrial Protected Area Nomination: Central Mangrove Wetland 46A/1, Grand Cayman

The attached nomination, proposing that a parcel of land in the Central Mangrove Wetlands be made a Protected Area under Section 7 of the National Conservation Law, has been considered by the National Conservation Council. On consultation of the current landowners, Council has resolved to advance this nomination. If Cabinet approves this proposal, the natural environment in these wetlands will be protected and managed according to a Management Plan to be developed under Section 10 of the Law.



The nominated parcel would extend protection for the Central Mangrove Wetland protection in the east. The parcel is adjacent to land owned by the National Trust for the Cayman Islands, which in turn is connected through to the North Sound via already protected land. This therefore links the land hydrologically and ecologically, maintaining the functions and services that the wetland provides. The south east section of this parcel also contains an area dominated by buttonwood and white mangrove, a version of the ecological composition of the Central Mangrove Wetland which is not currently well represented in other protected areas.



The Central Mangrove Wetland has long been recognized as a vital environmental asset for the Cayman Islands, providing natural services of substantial social and economic value. These services include providing nutrient flows into the North Sound ecosystem which supports productivity of fish stocks. Fish and lobster stocks, in turn, benefit greatly from resulting nursery conditions among the submerged roots of the mangrove fringes. Evapotranspiration from the mangrove forest plays a role in rainfall patterns, important to farmers and gardeners, while the mangroves and their underlying cap rock contain and elevate rain-fed fresh groundwater resources in adjacent agricultural land. The mangrove ecosystem is laying down peat as sea level gradually rises, buffering inland areas from flooding and simultaneously storing carbon from the atmosphere. Recreational and commercial kayak and slow boat tours explore the Central Mangrove Wetland margins and creeks. An array of endangered and economically important species depends, at least in part, on the Central Mangrove Wetland and the resources it provides.

The addition of this parcel would improve connectivity and increase the capacity of the Central Mangrove Wetland to provide and incorporate more of the ecosystem varieties under formal protection.



# Protected Area Nomination

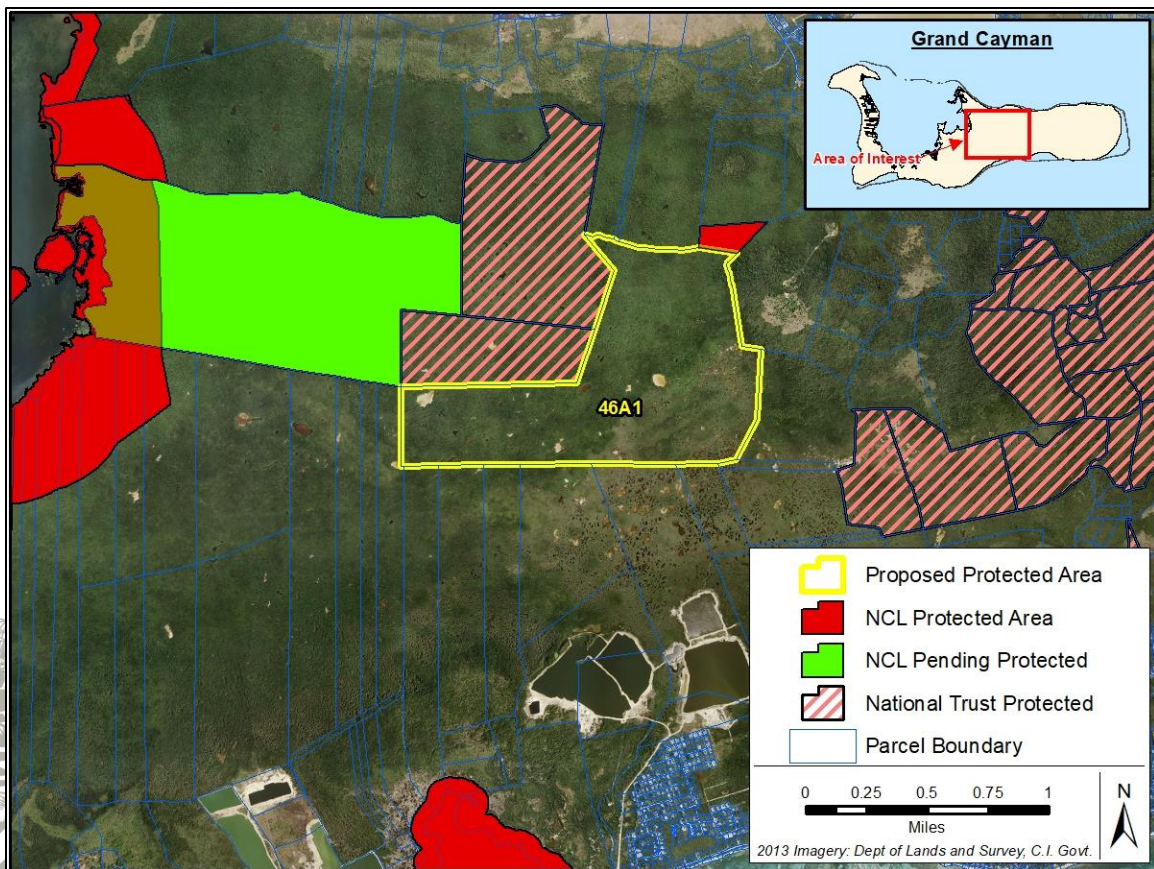
## Central Mangrove Wetland 46A/1, Grand Cayman

*This nomination is made under Section 9 of the National Conservation Law, 2013*

### 1. Description of the Area

The nomination would extend the current Central Mangrove Wetland protection to the east, located adjacent to land owned by National Trust for the Cayman Islands, which in turn is adjacent to land already protected.

Block	Parcel	Ownership	Portion of parcel
46A	1	Private	Whole



## 2. Reasons for Nomination

### Purposes and Objectives

**2.1** Protection of the nominated lands will protect habitat vital to a substantial population of a variety of resident and migratory birds. NCL ref. 8 (1) (a)

**2.2** Protection of the nominated lands will conserve a large area within Grand Cayman's unique Central Mangrove Wetland ecosystem, sufficient to maintain a high level of terrestrial biodiversity. The south east section of the parcel also contains wetland that is dominated by buttonwood and white mangrove, a variety of the wetland ecosystem that is not currently well represented in the formally protected areas. NCL ref. 8 (1) (b)

**2.3** Protection of the nominated lands will maintain a significant part of the Central Mangrove Wetland's large scale nutrient output to marine life in the North Sound. Life-support systems such as its hydrological support of fresh groundwater under agricultural land, its transpiration stream boosting rainfall in western Grand Cayman, its important role in storm water management, and its peat bioaccumulation countering the effects of rising sea level are all highly desired ecological systems for protection. NCL Ref. 8 (1) (c)

**2.4** Protection of the nominated lands will secure the scientific, geological and educational value of the deep peat profile, which holds evidence of past climates and environments. Via its hydrological connection it will also support the recreational and aesthetic value of the mangrove coast of Little Sound, and secure part of the huge ecological value of this large wetland as a whole. 8 (1) (e) and (f)

### Criteria for Protection

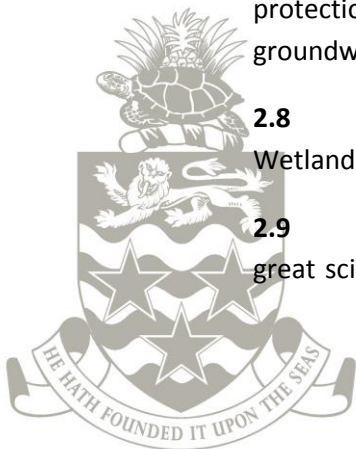
**2.5** The nominated lands are in a completely natural state. NCL Ref. 8 (2) (a)

**2.6** The nominated lands support a very high diversity of life, including mangrove and associated flora, marine life, bird life and high invertebrate biodiversity. NCL Ref. 8 (2) (b)

**2.7** As a significant part of Grand Cayman's Central Mangrove Wetland, the nominated lands have immense ecologically important functions, including but not limited to: carbon storage and sequestration, nutrient production and outflow to the marine environment, storm protection, and the support of biodiversity both on site and off site through influences on groundwater and rainfall. NCL Ref. 8 (2) (c)

**2.8** As the largest mangrove wetland in the Cayman Islands, the Central Mangrove Wetland is of biogeographic importance, both locally and regionally. NCL Ref. 8 (2) (d)

**2.9** The information held in the layers of peat below the Central Mangrove Wetland is of great scientific interest, providing a window into past times. This, and the way the mangroves



are responding to rising sea level, is relevant to the science of climate change and the global carbon cycle. NCL Ref. 8 (2) (e)

**2.10** For all the reasons above, the nominated lands are of great national importance, and also of regional and international importance. NCL Ref. 8 (2) (f)

**2.11** There is no concern for demanding management needs due to the isolated location and difficulty in access of the parcel. NCL 8 (2) (g)

### **3. Species of Special Concern**

The following table lists the species of concern known to depend at least in part on the nominated lands:

<b>Common name</b>	<b>Scientific name</b>	<b>Description</b>	<b>NCL Schedule 1</b>	<b>Habitat use</b>
Whistling Duck	<i>Dendrocygna arborea</i>	Duck	Part 1	Breeds in mangroves, feeds in ponds and open sedge zones
Red Mangrove	<i>Rhizophora mangle</i>	Mangrove	Part 2	Component of vegetation community
White Mangrove	<i>Laguncularia racemosa</i>	Mangrove	Part 2	Component of vegetation community
Buttonwood	<i>Conocarpus erectus</i>	Mangrove associate	Part 2	Component of vegetation community
Agalinis kingsii	<i>Agalinis kingsii</i>	Flowering herb	Critically Endangered Endemic, Part 1	Grows in sedge margins of pools

### **4. Conservation Problems and Special Protective Measures Required**

None.

### **5. Management Considerations**

Active management of the nominated lands will be substantially unnecessary due to the isolated location and absence of access.

