

# Terrestrial Protected Area Nomination: Central Mangrove Wetland South-West, Grand Cayman

The attached nomination, proposing that a parcel of land in the Central Mangrove Wetland be made a Protected Area under Section 7 of the National Conservation Law, has been considered by the National Conservation Council. Subject to ongoing consideration by the landowners concerned, Council has resolved to advance this nomination. If the landowner and Cabinet approve 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 the current central mangrove wetland protection in the south west and includes the unnamed Crown mangrove cay, defined by parcel 30A/1. The northern portion of the nomination is adjacent to newly protected land and the North Sound environmental zone.



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 include providing nutrient flows into the North Sound ecosystem, which supports productivity of fish, lobster and conch 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 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.



# Protected Area Nomination

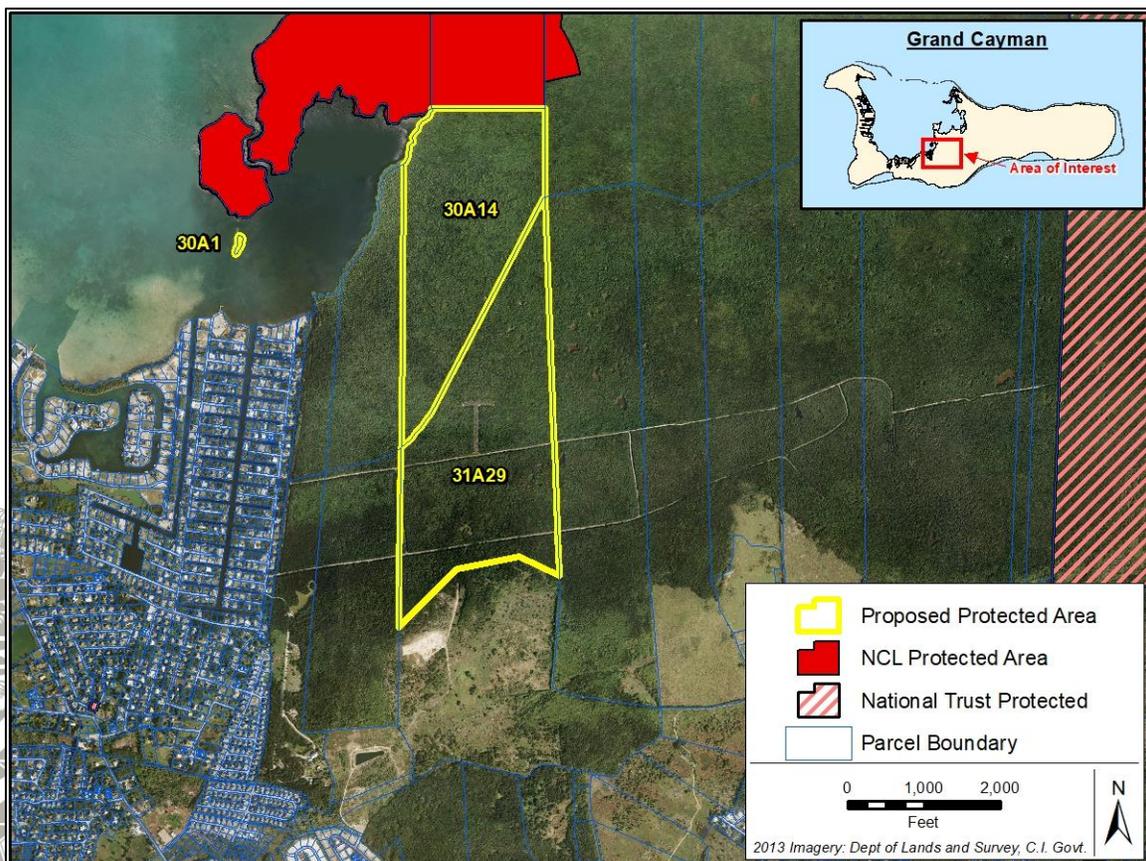
## Central Mangrove Wetland South-West, Grand Cayman

*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 south west and includes the unnamed mangrove cay, defined by parcel 30A/1. The mainland parcels mirror land located further to the east which is owned by National Trust for the Cayman Islands and thus extends the current protection surrounding the North Sound environmental zone, creating a greater capacity for the Central Mangrove Wetland to perform ecological services.

Block	Parcel	Ownership	Portion of parcel
30A	14	Private	Whole
31A	29	Private	Partial
30A	1	Crown	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 as well as a locally rare crab. NCL ref. 8 (1) (a)

**2.2** Protection of the nominated lands will maintain a significant part of the Central Mangrove Wetlands 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)

**2.3** 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. It will also secure the recreational and aesthetic value of the mangrove coast of Little Sound, and part of the huge ecological value of this large wetland as a whole. 8 (1) (e) and (f).

### **Criteria for Protection**

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

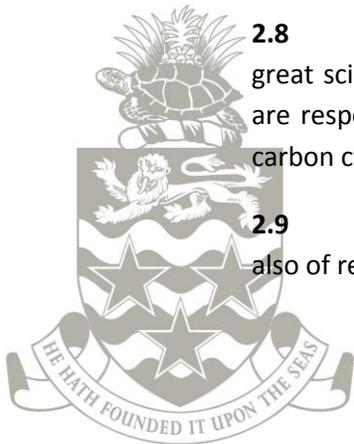
**2.5** The nominated lands support a very high diversity of life, including mangrove and associated flora, marine life, bird life and high invertebrate biodiversity. NCL Ref. 8 (2) (b)

**2.6** As part of 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)

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

**2.8** 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)

**2.9** 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)



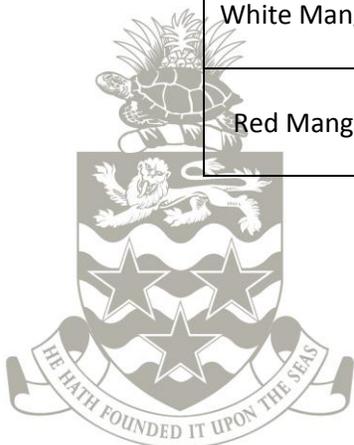
**2.10** There is no concern for demanding management needs other than occasional patrolling of the environmental zone that is routinely done by Department of Environment Enforcement staff and occasional patrols of the dyke roads within the southern section of the nomination. Other inaccessible areas require even less management. NCL 8 (2) (g)

**2.11** The coastal aspects of this nomination are already a focus of kayak and slow boat recreation and tourism, which are the primary ways the public can visit and directly appreciate the aesthetics of the Central Mangrove Wetland. NCL 8 (2) (h)

### **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>
Mangrove Crab	<i>Aratus pisonii</i>	Crab	Unlisted. Restricted in Cayman to the Red Mangrove fringes of Little Sound	Lives on leaves and branches of fringing Red Mangrove
Whistling Duck	<i>Dendrocygna arborea</i>	Duck	Part 1	Breeds in mangroves, feeds in ponds and open sedge zones
Parrot	<i>Amazona leucocephala caymanensis</i>	Parrot	Part 1. Critically endangered, endemic subspecies	Nests in Black Mangrove zones
White-crowned Pigeon	<i>Patagioenas leucocephala</i>	Pigeon	Part 1	Foraging and stop-over activity
Black Mangrove	<i>Avicennia germinans</i>	Mangrove	Part 2	Component of vegetation community
White Mangrove	<i>Laguncularia racemosa</i>	Mangrove	Part 2	Component of vegetation community
Red Mangrove	<i>Rhizophora mangle</i>	Mangrove	Part 2	Component of vegetation community



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

None.

**5. Management Considerations**

Management of the nominated lands will require minimal resources beyond continuation of existing patrolling of the Environmental Zone by DoE conservation officers and occasional monitoring of the dyke roads that pass through 31A / 29.

