

Coastal Works Review

**Little Cayman Overwater Bungalows, Kingston Bight, Peppercorn
Investments
Block: 86A Parcel: 18 and 20
CWL 419**



CAYMAN ISLANDS GOVERNMENT

PREPARED FOR: MINISTRY OF SUSTAINABILITY AND CLIMATE RESILIENCY

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Authored by: Department of Environment

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Project Proposal

The site is the former Kingston Bight Lodge, also known as the Blue Lagoon or Sunset Cove. The site is located in Little Cayman, in the eastern part of South Hole Sound within an area called Kingston Bight (see Figure 1 and 2). The applicant – Peppercorn Investments – is seeking coastal works approval for the construction of 19 overwater bungalows and associated infrastructure (including a hot tub/Jacuzzi tub and a dock to moor a boat on each bungalow), within the South Hole Sound Marine Reserve (a protected area designated under Section 7 of the National Conservation Act).

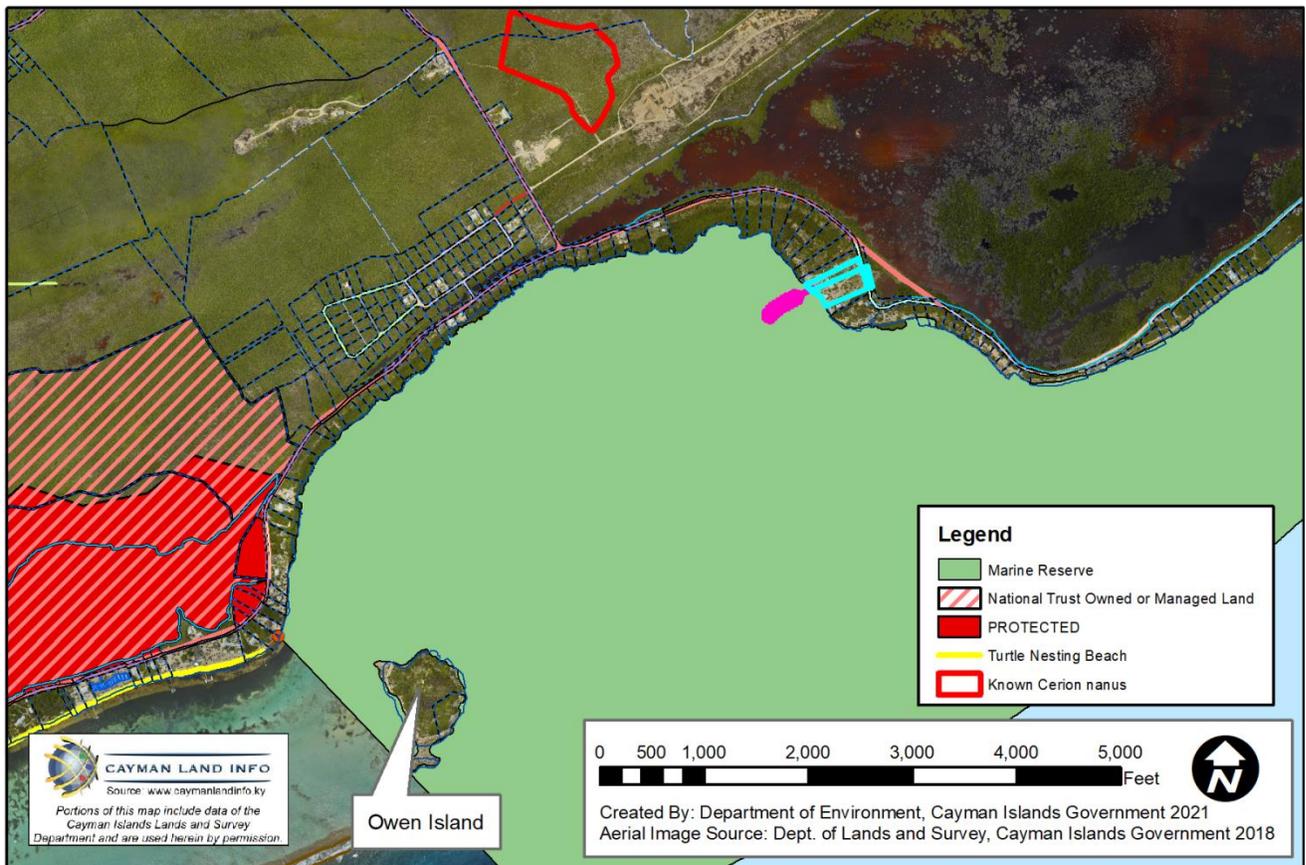


Figure 1. Site location plan, showing the land-based site in blue and the overwater bungalows in pink.

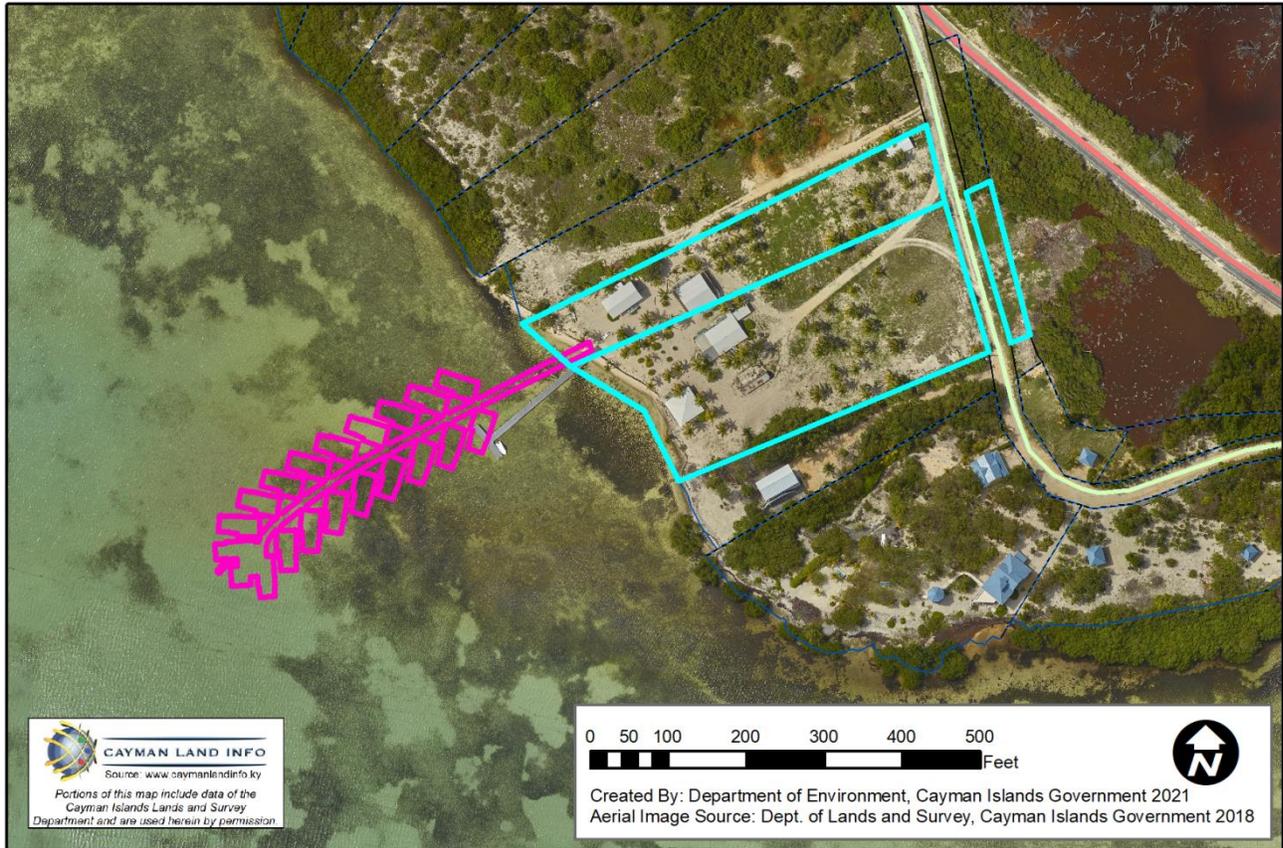


Figure 2. Site plan, showing the land-based site in blue and the overwater bungalows in pink.

Construction

Based on the Applicant’s Technical Report, the construction of the Proposed Development is summarised below.

- The overwater bungalows and boardwalk foundation will be constructed with 12” to 14” round coated steel piles filled with G 90 galvanized steel I beams on top of the piles, G 90 galvanized steel floor joists, and marine grade composite decking. Composite decking refers to wood fibres and plastic combined together. The Technical Report states that this will be mechanically fastened with stainless steel fixings. There are various types of methods to install composite decking however the most common way is to cut and drill composite decking. This practice commonly results in shreds of plastic material entering the marine environment. However elsewhere in the technical report, it is stated that the decking will be Ipe hardwood.
- The structures will be supported by 549 piles, mechanically driven into the seabed until bedrock refusal. A Geotechnical Report was submitted with the application. The Geotechnical Report included ground investigation on land at the site. In the majority of trial pits, the trial pit was terminated due to reaching the end of the excavator’s reach. The bedrock was assumed to be between 16 and 18 feet below ground level, above which is sand.
- The walls of the bungalows will be constructed, manufactured and prepared insulated Structural Insulated Panels (SIP) made up from cement board and compressed polystyrene connected with stainless steel fixing and connection plates. Polystyrene and cement board are not renewable. Plastic and wood composite decking can be manufactured with recycled plastic and recycled wood.

- The roof will be made of SIPs from cement board and compressed polystyrene supported by glue-laminated timber. There will be a composite shake shingle roof system – this also means plastic and wood fibre which is not biodegradable and typically very difficult to recycle.
- A sewage treatment plant will be installed.
- Over-the-water sewage will be removed using an AirVac system to a lift station on land and then transferred to sewerage plant.
- Water will be provided using reverse osmosis.
- All utilities will be within the boardwalk, not on the seabed.

Operation

The Proposed Development comprises 19 overwater bungalows with accompanying decks and pools (which are the subject of the coastal works application). The land-based element consists of 6 clusters of buildings which each include two single-storey two bedroom units and one two-storey three bedroom units and is subject to planning permission. Therefore, the land-based element has 42 bedrooms within 18 units and 19 overwater bungalows, resulting in 61 bedrooms. The overwater bungalows will require 549 piles, as each overwater bungalow will be supported by 22 piles and the deck and boardwalk areas will also be supported by piles.

Each overwater bungalow will contain one guestroom with plumbing, electrical and air conditioning. The guestrooms are each equipped with a toilet, shower and two sinks and the area of the guest room is approximately 600 sq ft. Each guestroom is also equipped with a ‘verandah’ which will have a hot tub or Jacuzzi tub (it is not clear from the plans). There will be a lower deck, each 200 sq ft, with lounge chairs, a dock net for lounging, a ladder to enter the water, and the ability for up to 30 ft boats to dock against each bungalow. The two overwater bungalows at the end of the dock form a deluxe suite which can be connected, and also have an interlinking hall, a pool, a wooden deck and a water slide into the ocean. Each bungalow will presumably have indoor and outdoor lighting. The combined area of the two end bungalows is 1803 sq ft with two 200 sq ft lower deck areas and a 448 sq ft lower deck area.

The overwater bungalows are connected by a deck and boardwalk, which will also presumably have lighting and handrails for safety.

On land, there is an existing bar located approximately 15 feet from the ‘Apparent High Water Wash Line’, as annotated by the applicant’s architect; the coastal works application was not accompanied by a Mean High Water Mark survey completed within 12 months of submission of the application, which is a requirement of the coastal works permitting process.

Planning History

The property at Kingston Bight was developed in approximately 1973 as a fishing and diving lodge, at the time called Kingston Bight Lodge. The property was severely damaged by Hurricane Gilbert in 1988. There was an approximately 100 ft dock which was completely destroyed. The original licence for the dock is not held on file, if it was licenced. The dock was repaired in 1993 with a Coastal Works Permit and extended to a T-shape with a length of approximately 153 feet. The dock was again destroyed by Hurricane Ivan in 2004 and repaired again in 2006 under a Coastal Works Permit. It is not known how the dock fared in Hurricane Gustav (2002) or Hurricane Paloma (2008) which caused damage in Little Cayman. The Department does not have records of any Coastal Works Permit issued for the dock after 2006.

Pre-application Discussions

The DoE was contacted by the applicant to screen this development proposal to advise whether it would require an Environmental Impact Assessment (EIA). However, it became evident to the DoE that the proposed development raised issues which go beyond the remit of an EIA. In the absence of a development plan for the Sister Islands or any policy framework for this type of infrastructure, there has not been a national conversation on the acceptability or appropriateness of this type of development for the Islands. Furthermore, the existing approval frameworks e.g. coastal works and planning permission do not adequately deal with this type of infrastructure e.g. a one-off Royalty for use of Crown land may not be the appropriate financial structure for this type of development.

The DoE therefore convened a meeting on 29 March 2021 with relevant government departments and ministries to discuss both the NCB proposal and the wider issue of overwater habitable structures. The meeting was attended by Ministries of Planning, Environment and Lands, Department of Lands & Survey, Department of Tourism, Department of Planning and DoE. A summary of the meeting, endorsed by all attendees, is enclosed.

With respect to the applicant's proposal there were concerns raised by attendees about the proposed location of the development within a Marine Protected Area (South Hole Sound Marine Reserve). Guidelines from neighbouring jurisdictions, such as Jamaica, do not allow overwater bungalows in Marine Protected Areas.

The overwater bungalows require a section 21 permit (coastal works permit) under the National Conservation Act. Section 21 (2) (a) states that:

21. (2) "The Cabinet shall not grant a permit unless it is satisfied that-

(a) In the case of a permitting authorising the works in a protected area, the works are compatible with any management plan for the area or that appropriate and enforceable conditions can be imposed to ensure such compatibility"

The enhanced Marine Parks came into force on 12 March 2021 and as such the management plan for the South Hole Sound Marine Reserve has not yet been prepared. However, the DoE and all attendees of the inter-governmental meeting were in agreement that such infrastructure should not be sited in a Marine Protected Area.

It was also agreed by all attendees that the country needs to develop a policy for this type of infrastructure to ensure that it is appropriately sited and regulated, minimises the impacts on the environment and delivers a positive visitor experience. This would set the framework for assessing and reviewing future applications. The DoE (on behalf of the National Conservation Council) will be working on developing the policy, in consultation with relevant agency stakeholders, over the coming months. Section 3 (9)(j) of the Conservation Act notes that the functions of the Conservation Council include:

"(j) promoting the adoption of guidelines by entities for the integration of conservation issues into their decision making processes and for the achievement of the sustainable use of natural resources"

It is also recommended that the draft policy includes public consultation. Section 3 (9)(i) notes that the Council's role includes:

"(i) Encouraging public involvement, particularly by local communities, in the planning and management of protected areas and the conservation of protected species."

The applicant was advised that a policy would be formulated and that the inter-governmental meeting that took place did not view the development proposals favourably.

Current Application

The Applicant has submitted a Technical Report for the construction and maintenance of the proposed structures. Unfortunately, it appears to have been directly copied from a document entitled ‘Technical Report for the Construction and Maintenance of Overwater Structure at Whitehouse, Westmoreland dated April 2017.’ The mitigation measures proposed are directly copied from this report. There are numerous errors referring to Jamaican regulatory bodies, Jamaican waste management facilities (e.g. the report states that all solid waste will be taken to the Retirement Landfill in St. James for disposal), Jamaican cities and towns, and aspects of that project rather than the Proposed Development in Cayman. The entire Risk Assessment Table 14.2.2 has been copied from the Whitehouse report, with the only changes being the removal of ‘crocodiles’ as an environmental issue, and score of ‘1’ given for crime. All of Tables 14.3.2 to 14.3.10 are direct screenshots taken from the report and pasted into the Applicant’s report without making the tables site- or project-specific.

Therefore, it is difficult to accept these mitigation measures as commitments from the developer. Given the lack of proof-reading and that so many tables are simple screenshots of another project’s technical document; it is questionable whether these proposed measures would actually be implemented in the Proposed Development.

The Sustainability Report Hotel Pre-Construction 2021 contains a long list of recommendations with no indications of which would be carried forward to the Proposed Development. The document has no commitments within it, but instead outlines only a list of potential options. Many of the other suggestions have not been incorporated into the planning application, e.g. rainwater cisterns, natural ventilation, and greywater reuse. The Technical Report and description of the Proposed Development uses very little material which could be considered eco-friendly, renewable or biodegradable. The Sustainability Report is generic, and does not make any specific reference to overwater bungalows or the infrastructure over the seabed.

Unfortunately, these documents give the impression that the environment has been considered, while not having actually committed to or incorporated sustainability into the design.

Environmental Impacts

The application site is located within the South Hole Sound Marine Reserve, a Marine Protected Area. It is not located on a turtle nesting beach. The environmental impacts of this project are identified as follows.

Purpose of a Marine Reserve

The site is within South Hole Sound, which is a Marine Reserve. A Marine Reserve is one of the highest levels of marine protection under the National Conservation Act, with the only higher level being the Environmental Zone within the Central Mangrove Wetland and Little Sound.

South Hole Sound was originally designated a Replenishment Zone in 1986 under the previous marine parks regime. Therefore, it has been a protected area for 35 years. In 2021, the South Hole Sound became a Marine Reserve to become a true no-take Marine Reserve.

Section 8 of the National Conservation Act details the purposes or objectives of a protected area, which includes:

- To conserve, maintain and restore habitats and their associated ecological systems critical to the survival and recovery of species which are endangered, threatened, endemic or migratory species or of special concern for any other reason;

- To conserve, maintain and restore examples of representative or unique ecological systems and their physical environment of adequate size to ensure their long-term viability and to maintain biological and genetic diversity;
- To conserve, maintain and restore the productivity of ecological systems and natural resources that provide economic or social benefits or are important for the protection and maintenance of life-support systems, including air and water and other ecological processes;
- To facilitate the regeneration of wildlife in areas of special concern;
- To conserve, maintain and restore areas of special biological, scientific, recreational, archaeological, ecological, cultural, educational or aesthetic value, including areas of special concern and areas whose ecological or biological processes are beneficial to the functioning of the ecosystems of the Wider Caribbean; and
- To encourage ecologically sound and appropriate use, understanding and enjoyment of the area.

A Marine Reserve is an area which is set aside for the purposes of conservation. No-take marine protected areas (i.e. Marine Reserves) form a vital part of the Cayman Islands' fisheries management policy and tools. Marine reserves allow fishes and other species to live in greater numbers, grow larger and reproduce more than their counterparts in open zones. The benefits of no-take marine protected areas have been studied in depth, and there is evidence for increased biomass and density of targeted fish species and positive effects on body size, reproductive potential, species diversity and community structure or organisms within reserve boundaries¹. One 24 year study found that no-take marine protected areas increased the growth of fish populations by 42 percent when fishing was unsustainable in surrounding areas².

Cayman's Marine Parks systems have been designed to alternate areas of protection and areas of fishing, so that there can be spill over of fish from the Marine Protected Areas into open areas for fishing. By having this alternating system, we can ensure benefits to all and maintain healthy fish populations to support the cultural heritage of the Cayman Islands and provide amenity and tourism value. Long-term protection allows the entire range of species and habitats to recover and maintain natural ecosystem health and associated fishery benefits.

The purpose of South Hole Sound Marine Reserve is to protect the key nursery area of the intertidal mangroves, as well as the adjacent seagrass beds, and coral reef environment. This area is very unique in having these three systems connected, in good condition and benefitting from legal protection.

Our research indicates that the South Hole Sound mangroves are extremely important for sharks. A study undertaken in Cayman found that areas with proximity to marine nurseries had a fish biomass 249% higher than in areas with no nursery access. For large-bodied individuals of nursery species (>25 cm total length), fish had 203% higher biomass when in close proximity to nurseries. South Hole Sound is also important habitat for conch and lobster.

Therefore, Marine Reserves are a **public, natural resource** that benefits all the people of the Cayman Islands, and those benefits extend far beyond the boundary of the Marine Reserve itself. However, Marine Reserves need to be kept healthy to be successful at keeping our fish, conch and lobster populations at good levels. Overwater structures have impacts on the marine environment during both construction and operation. These impacts jeopardise the integrity of South Hole Sound and could compromise its ability to function as a healthy conservation area.

¹ Darwin Initiative Project. (2011). Darwin Initiative to Enhance an Established Marine Protected Area System, Cayman Islands.

² McClanahan, T.R., (2021). Marine reserve more sustainable than gear restrictions in maintaining long-term coral reef fisheries yields.

Construction

Piling

During construction, the piling can generate sediment plumes and turbidity. Suspended sediment has the negative impacts of smothering some marine organisms, burying or coating when it settles and obstructing sunlight whilst suspended. Additionally, anoxic sediments will be exposed resulting in reduced levels of available oxygen in the water column and associated poor water quality for a period of time in the order of months as the sediments stabilize.

At this particular site, the seabed is a mixture of very soft sediment, diverse marine algae species and seagrasses. The fine silts, sediments and sands of the seabed in this area will be easily disturbed and suspended during the process of installing the pilings, thus resulting in detrimental sediment plumes which can impact surrounding seagrass communities and marine organisms that depend on good water quality. The proposed overwater bungalows will require 549 piles. By comparison, the recently approved Old Man Bay dock will be supported by 30 piles. This vast number of piles will result in direct impacts from the piles into the seabed and indirect impacts from the turbidity generated and the noise and vibration from the piling and operation of the equipment.

Simple docks can have adverse impacts from piling too, but the scale is smaller and the duration of time is much shorter than that of the overwater bungalows. The type of seabed at the site will also give rise to greater turbidity than other potential locations because it is so soft. In addition, there will be adverse impacts from the removal of the existing dock due to the generation of turbidity.

Habitable Structures

Habitable structures bring in a number of other issues during construction which are not present with the construction of simple docks.

There will be numerous technical challenges associated with constructing and furnishing habitable overwater structures. For example, there are likely to be adverse impacts outside of the direct footprint of the structure associated with transporting materials to the overwater bungalows (e.g. prop scour, damage from spuds on a spud barge etc.). It is not clear from the Applicant's reports how the overwater structures will be fit-out and how the logistics will be managed.

In addition, construction directly over the marine environment will likely result in spills of chemicals, construction materials, and debris etc. It can be difficult to keep land-based construction sites clean and the problem will be much more difficult when working directly over the water.

For example, the proposed walls will be constructed of cement board and compressed polystyrene Structural Insulated Panels (SIPs). Once these materials are cut, tiny microbeads are blown into the air, polluting neighbouring yards, stormwater drains, and nearby water bodies. Polystyrene is not biodegradable, and the beads can be consumed by wildlife where it enters the food chain. Beads that make their way to the sea can be mistaken by fish and birds as fish eggs and have the potential to cause blockages in their digestive systems. It is almost impossible to collect the polystyrene beads once they have become wind-borne. We have experienced developments along the coast inadvertently polluting the marine environment from wind-borne debris. Figures 3 to 5 show polystyrene 'snow' littering the surrounding area.



Figures 3, 4, 5. DoE site visit photos showing the bits of white polystyrene material littering local development

In addition to these beads getting into the Marine Reserve, neighbours also complained about the pollution and the local media covered the issue (Figures 6 and 7). Developers attempted to remedy the situation by cleaning neighbouring pools and yards daily but it was impossible to collect all of the beads, especially once they entered the marine environment. A screen was then fastened around the building to contain the beads. The last image was taken at a construction site located at a critical turtle nesting beach on Grand Cayman.



Figures 6, 7. Cayman Compass photos from a recent news article showing polystyrene pollution from a development on a turtle nesting beach which is also adjacent to a Marine Protected Area.

It will be impossible to contain the polystyrene beads if cutting or shaving polystyrene material directly over the Marine Reserve. If constructing directly over the marine environment, there will be a very large number of potential sources of pollution. There will be plastic particles from shaving of PVC pipes for the plumbing, a temptation to wash concrete trowels and other chemical compounds directly into the sea, litter of lumber, metals etc.

The above is only one example of the type of pollution which can result from construction over the marine environment. The Department receives a very large number of complaints of construction debris entering the marine environment when the development is on land, adjacent to the water (see Figures 8 to 11). The issues will be magnified by being directly over the marine environment.

Therefore, there are likely to be severe adverse effects from the Proposed Development during construction. There will be adverse effects typical of a dock structure (turbidity) which will be magnified by the very large size of the

Proposed Development. There are also the adverse effects unique to constructing substantial infrastructure over the water (pollution into the marine environment, fit out of structures).



Figures 8, 9, 10, 11. Construction debris routinely enters the marine environment when constructing **adjacent** to the sea.

Operation

Environmental Impacts

Overwater structures are known to cause adverse marine impacts. Like docks, there can be shading of the seabed. The Department's guidelines recommend ½ inch spacing between boards of a dock. This helps to reduce the impacts of shading by allowing some sunlight penetration, but it does not eliminate the impacts. While ½ inch spacing is proposed along the walkways (in some parts of the application – the application is inconsistent), the habitable structures would not allow any sunlight penetration. The proposed docks have an area of 9,259 sq ft and the proposed overwater bungalows have a total area of 16,455 sq ft. Therefore there will be a moderate direct impact of 9,259 sq ft (some light penetration) and a severe impact on 16,455 sq ft of seagrass beds (no light penetration).

During operation, the structure is also likely to have a number of other significant adverse effects, namely:

- **Reduced Sunlight Levels and Increased Artificial Lighting Levels:** Habitat impacts from reduced sunlight levels (vegetation responses, animal response, migration and predation), altered ambient light patterns, altered predator-prey relationships associated with night-time lighting.
- **Disruption to the Natural Environment:** Artificial aggregation due to the structure created, disruption of feeding and behaviour, and changes to the predator/prey balance – artificial light can make prey fish more vulnerable to predation because they are more visible. Potential for impacts to surrounding marine habitats through increased recreational use of the area through swimming and walking in the shallow water directly.
- **Potential Sewage Spills:** Potential for impacts of sewage spills in the marine environment in storm conditions – there may also be leaks under normal operation;
- **Pool Cleaning Chemicals and Pool Water:** Potential for pool cleaning chemicals and regular discharge of pool water into the Marine Reserve, given that it is located directly above it;
- **Debris from Destroyed Structures from Storms:** Potential impacts of destroyed structures due to hurricanes and storms - the impact of the destroyed structures will be much more severe than a simple dock because of the presence of air conditioners, refrigerators, plumbing, water supply, sewage, electricity, furniture and fixings etc. It is very likely that the Marine Reserve would become scattered with debris from the overwater bungalows in the event of a hurricane or storm. Figure 12 and 13 below shows the dock at the White House which was used as a restaurant terrace following Tropical Storm Grace. The overwater bungalows are much more substantial than this dock and Tropical Storm Grace, while a direct hit, was not a hurricane at this time;
- **Continuous Source of Litter:** Potential for solid waste and food waste to blow/fall off the decks and into the marine environment – even the best of intentions with respect to guest management will not prevent people trying to feed the fish from their verandahs or prevent accidental littering from the bungalows;
- **Frequent Boating Activity:** Adverse effects on the quality and quantity of habitat through prop scour, groundings, and contaminant introduction to the marine environment. Each of the 19 bungalows has been designed to have space to dock a 30 ft boat; and
- **No climate change resiliency:** The Department supports increasing setbacks for habitable structures, but the Proposed Development has a negative setback (i.e. it is directly in the water instead of on land).



Figure 12. The dock at the White House in Bodden Town is one of the most substantial existing docks in Cayman which was used as a restaurant, and it was damaged during Tropical Storm Grace and debris was scattered along the beach.



Figure 13. The debris from the dock at the White House in Bodden Town following Tropical Storm Grace. This dock measured approximately 6,000 sq ft, while the Proposed Development would have an area of 25,714 sq ft (four times the size of the White House).

Exclusion from the Area

The site is currently used for bonefishing. Bonefishing is enjoyed by the people of Little Cayman as well as visitors and used as a tourism activity. The presence of the overwater bungalows will exclude people from using this area which is currently enjoyed as a public resource. It is unlikely that people will be able to swim up to the bungalows or to kayak, snorkel or boat around them, even though this area is currently a public space. The overwater bungalows will also affect the tranquillity and peace enjoyed by people who are using this area, by adding more people in an intrusive way. There is the direct impact of the structure itself on enjoyment of the area, but there is also the added impact of the nature of this development (as a resort) which will further exclude people from the area. It is not clear how the Applicant intends to balance security with the existing rights of the public.

Principle of These Structures in a Marine Reserve

Marine Protected Areas, especially Marine Reserves, are designed to be protected areas providing benefits to all of Cayman, and the benefits extend far beyond the boundaries of the Marine Reserve itself because they contribute to fishing, reef health and an overall healthy ecosystem. The Department fundamentally does not support the degradation of these resources in the form of overwater bungalows development for private benefit. The Department firmly believes that keeping the Marine Reserve in a healthy state has a value which far outweighs the benefit to the public from habitable structures over the water. **A Marine Protected Area is a public natural resource for**

all of the people of Cayman and should fundamentally not be degraded via habitable structures over the water.

The Department believes there is a key difference between docks with cabanas and structures with habitable rooms over them on Crown property. Firstly, there is the intensity of development, meaning the scale and the infrastructure requirement to support it (all the plumbing, electrical, air conditioning, refrigerants, and materials making the superstructure). Secondly, that the nature of being habitable (i.e. contains all the spaces of a residential unit) means an overwater bungalow is different to a simple amenity structure (dock, cabana, fishing hut etc.).

Objections

The Department and Ministry have received a very large number of objections, well over 100 objection letters, which centre around:

- The effect on the Marine Reserve and the harmful effects on the marine life that this designation is intended to protect. A large proportion of the objections have been based on the fact that the site is a Marine Reserve and a protected area, and that this type of development should not be permitted in a Marine Reserve. We are aware of a petition led by the Little Cayman District Committee of the National Trust of the Cayman Islands which has been collecting signatures on the basis of the precedent this would set and damage this would cause in the Marine Reserve. The petition states that a Marine Reserve, as a national park, should not be given away for public use as a for-profit, private commercial operation. We do not yet know how many signatures the petition has received.
- The slow pace, natural beauty and island atmosphere of Little Cayman being disrupted by the overwater bungalows.
- The appeal of Little Cayman as unspoilt and the overall health of the marine environment which is relatively unique globally. The Central Caribbean Marine Institute has issued a press release and said that the increased environmental stress from dredging and constructing this within a marine protected area could be catastrophic for the island, and that it goes against the local marine environmental protection policies and is in direct opposition to the biggest threats facing Little Cayman's marine systems: climate change, pollution and increased anthropogenic activity.
- The additional impacts to the island infrastructure such as the power grid, the energy source, waste and water treatment concerns, flight availability.
- The view of South Hole Sound and Owen Island. Many objections were received from neighbours or Little Cayman residents.
- The precedent which would be set by allowing a commercial, habitable venture to be built on public land. Many objections referred to the idea that once this type of structure is permitted in this location on public land, many other similar structures will come forward and it will be difficult to refuse them.

Recommendations

The Department strongly recommends this application for refusal based on the principle of prohibiting the construction and establishment of habitable structures in a Marine Protected Area.

A project such as this would ordinarily trigger the requirement for screening to determine the need for an EIA. While the Department has written an EIA Screening Opinion which recommends an EIA and submitted it to the National Conservation Council for consideration, it is the DoE's strong view that it would not be beneficial or logical for the Applicant to do an EIA for a project which is fundamentally unacceptable due to its location and would be unacceptable regardless of the results of the EIA. Therefore, the Department is urging Cabinet to refuse permission

for this coastal works application based on the impacts outlined in this review and the endorsement of the Department of Tourism, Department of Lands & Survey, Department of Planning, Ministries of Planning & Environment that habitable structures should not be permitted in Marine Protected Areas.

However, if Cabinet is minded to accept the principal of overwater bungalows in a Marine Reserve, the Department **very strongly** recommends that an Environmental Impact Assessment is undertaken to thoroughly assess the potential impacts of the proposed project. Such an EIA would need to cover both the land and marine-based components of the proposed project.

Director, Department of Environment