Unlocking the Full Potential of Your Waterfront Property

Whether you own a resort, a villa or a piece of untouched waterfront land, intelligent investments in your shoreline can open new doors.

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Beautiful waterfront property in Jamaica that would be greatly enhanced with a beach

Sun, sea, sand: the trifecta of tourism, But what if your property is missing the sand?

People choose the Caribbean for what the industry calls 3S Tourism: sun, sea, and sand. If your waterfront property provides all three your future is bright. But what if you are missing the sand? The late Rory Marsh of Keller Williams Jamaica said having a beach can double the value of your waterfront property. A **good** beach can add even more destination value.

The best shorelines may be spoken for, but beaches can be created at almost any waterfront location. There are three main considerations in determining the viability of such an investment in your waterfront property. Read on to discover more.

THE VALUE OF A BEACH

MOST VISITORS PREFER TO STAY AT A PROPERTY WITH A BEACH

WORK WITH THE ENVIRONMENT AND NOT AGAINST IT

Think about who might use the beach:

- If you are marketing to a certain type of tourist, a beach is essential to help buyers compare where to spend their vacation dollars.
- If you are the primary user and have to drive to a beach to enjoy the water, having your own beach is safer and more convenient for your family and friends.
- If you are marketing your single occupancy villas for longer term work from home use, a beach on the common property places your villas at the top of the renters' selection list.

Consider the terrain and the environment you have to work with:

- Work with the environment and not against it.
- Recognize and minimize the impacts on adjacent properties.
- Do no harm to the environment when your intention is to add value.

Manage your investment:

- A beach is a garden that needs tending.
- Design it so it is sustainable.

CAN I BUILD A BEACH ON MY PROPERTY?

When someone asks me "Can I build a beach on my property?" my answer is always the same: *"Yes, but that depends on how much you appreciate the value a beach will bring to your property"*. By value, we don't just mean capital appreciation. That will happen, of course, but the property's earning potential will also build up over time. The first thing you must understand, however, is the value of the environment as a whole, and how nature shapes your property.

Across the Caribbean most of the best beaches are already taken - either by resorts or for public recreation. For new developments such as residential villas and private homes, beaches often need to be enhanced or created from scratch.

The general rule is that if you don't have a sandy beach along your shoreline, it's because nature won't allow it without proper intervention. Dumping a few loads of expensive white sand is not likely a good long-term solution.

SO HOW DO I BUILD A BEACH?

Beach creation is a science that becomes a work of art only after you understand and respect nature and the environment. The natural processes of the coastal environment are complex and dynamic. Waves and currents vary significantly on an hour-by-hour basis. The seasons also bring a wide variety of conditions and, of course, hurricanes always pose a serious threat.

To make matters more interesting, there is also this thing called *climate change*. We know for sure the changing climate is making sea levels rise, which means that over time your beach area will get smaller. We're also seeing where climate change is causing more intense storms with bigger waves eroding beaches around the Caribbean.

What does this mean to you? It means you'll need expert advice and proper planning to create a new beach. Read on for some general guidelines that will help you decide whether this is an investment option you want to pursue.

Step 1: Discover the Possibilities With Your Terrain

WHAT ARE MY OPTIONS?

1. Dry Beach.
You don't always need a beach that touches the water; a dry beach - one that's perched away from the water - is possible. If there is a ledge or even a cliff at your shoreline, sand can be placed at the top of the cliff to create a sandy lounging area. Sometimes just the view of the sea is enough to attract the value you want and water access can be provided via steps. Your dry beach must, however, be placed above areas that experience frequent overtopping from rough seas so the sand isn't washed into the sea.

2. Cove Beach.
If your property is ironshore (a rock platform along the shoreline) you can excavate some of this rock to create a pocket beach or cove. For this to be feasible, your shoreline should ideally be less than 3m above the sea level. Key considerations for this will be having well-designed openings to maintain good water exchange without losing sand during bad weather. Good water exchange ensures you have clear, clean water that is not stagnant and doesn't become a dump for seaweed.

Cove beach excavated from an ironshore at Sparkling Waters of Hanover, a 5-bedroom villa in Jamaica

Royalton St Lucia shoreline before beach creation and protection

Royalton St Lucia shoreline after construction of breakwater and groynes

3. Breakwater Reef.

If you have an existing rocky shorefront that slopes gently to the sea but is mostly pebbles and rocks, a breakwater structure may provide a sustainable sandy beach. As its name suggests, these structures break the incoming waves so they do not erode your sand. They are usually built in the nearshore area with large boulders. These structures can be submerged to have less visual impact or emergent to be more effective in reducing waves, but the latter will have more of a visual impact. Breakwaters will also help if you already have a sandy beach but are a victim of frequent seasonal and long-term erosion.

Along with protecting your beach, reef breakwaters can bring far more value: over time, the crevices in the structure become home to different kinds of coral and colourful tropical fish. Imagine being able to offer a great snorkeling adventure just a few feet from your guests' doorstep!

The new beach at Royalton Saint Lucia is held in place by a breakwater reef that's barely visible from the shore. The groynes anchoring either end are emergent.

Flora and fauna colonizing the breakwater reef at Accra, Barbados (photo by Renata Goodridge)

4. Move Seaward.

If you have limited space on land to create a cove or conditions otherwise don't support a cove, it's possible to reclaim part of the sea with a beach. This kind of intervention will require structures to hold the reclaimed sandy area in place. These structures could be connected to the shoreline (groynes) or offshore (breakwaters), or a combination.

Palmyra property (now Jewel Grande Montego Bay Resort and Spa) before and after beach creation, which involved moving the shoreline seaward

5. Offshore Island.

If the nearshore area is shallow, there might be an opportunity to create a beach island close to the shore. This is usually a visually appealing feature that becomes a destination for guests to swim or wade out to. This island will most likely need to be protected from waves on the side facing the sea, with the beach facing the land. If the island is designed to be large enough, it can be home to palm trees and other salt-tolerant plants.

Offshore island created for Holiday Inn, Montego Bay

There are many possibilities for shoreline improvement with just about any property. Always work with a coastal expert.

Suction dredge offshore


De-watering dredged sand


Spreading the dredged sand on the beach

6. Beach Nourishment.
This involves placing the essential material (sand) on the beach and is needed in all the options described above. There are different kinds of sand that can be used. Natural marine sand is the best but can be difficult or expensive to source. Marine sand can be sourced by dredging from offshore, but some islands don't have extensive deposits of sand offshore.

Crushed limestone has been used on several beaches as it is often less expensive, but the quality of this manufactured product can vary: If the process does not allow for sufficient washing or the grains are too angular, the sand could create a hardened surface or might be unpleasant to walk on.

White terrestrial sand has also been used on beaches, especially in the Eastern Caribbean. It's critical to use the right grain size, however, because grains that are too small can be easily washed away. Of course, careful design of protective structures is also very likely to be required.

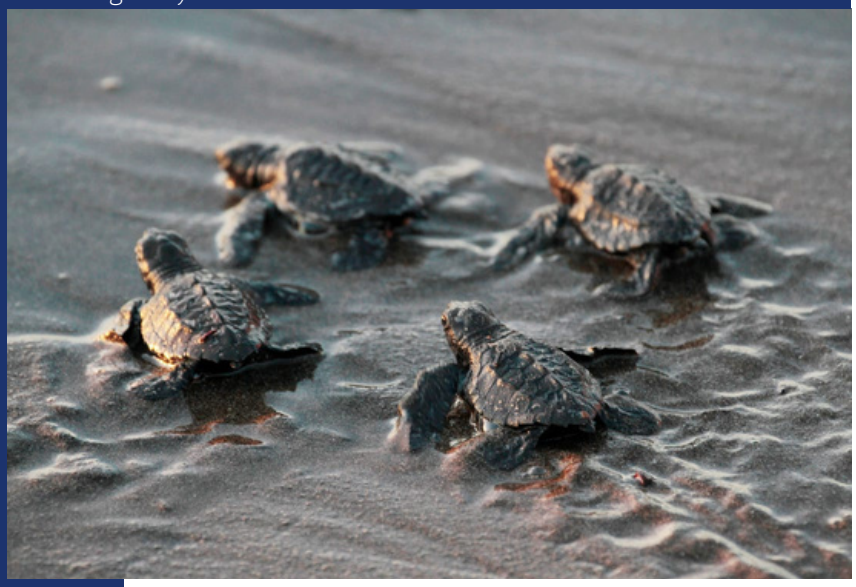
7. Ecosystem Strengthening.
All the approaches described above can be done in a way that supports the natural ecosystem, but too often we don't pay enough attention to maintaining the natural systems that protect our beaches. For example, if there is a beach with dunes (mounds of sand) and we cut the vegetation to hold more beach chairs we are harming the beach ecosystem. Dunes are a natural source of sand for replenishing the beach. When we remove this source, there is no sand for the beach to recover after storms.

Vegetation acts as natural protection for our beaches. Building vertical structures such as sea walls (from gabion baskets, rocks or concrete) with a hard surface along a beach is always a bad idea; they usually cause erosion of beach sand. And if the reefs offshore are damaged by inland activities (pollution, sedimentation from drainage, etc.) then preserving and saving your beach requires improving human behavior on land, and that's mostly outside of your control. You should still play your part, for example, by ensuring your sewage system is not leaking into the underground water as this eventually gets into the sea. Educating your guests is another great way to play your part.

Rebuilding coral reefs is a long-term solution that can also be considered. If turtles nest on your beach, make sure not to disturb their nests. Instead do some research to understand nesting seasons and make "turtle watching" a unique experience your property offers.

WORK WITH NATURE AND NATURE WILL WORK WITH YOU

Thrilled guests watch a coordinated turtle release at Half Moon Resort in Montego Bay



Step 2: Design, Planning and Permitting

When you have the right solution for your environment and your property, your design needs to be vetted. Before you sigh about the red-tape recognize that environmental permits are almost always needed for beach creation activities in most jurisdictions around the Caribbean. They are designed to protect you, your property and your neighbors. One of the benefits of the permitting process is that it helps you avoid creating adverse impacts to yours or your neighbors' property.

You want to know whether your design ideas are about to set off impacts that will be detrimental down the road. The fluid nature of shorelines means that whatever you do at your property may a) make your property more at risk to damage from hurricanes (recovery is prohibitively expensive, prevention and mitigation far less so); or b) damage your neighbors' shoreline, who may have good cause for complaint (or worse).

Step 3: Building Your New Beach

The final step in creating a beach is construction. Before you think about who you might know that could make the beach, you need to know it's not like building a house. Marine construction experts are rare. This is a highly specialized business due to the high levels of risk in working in and around the sea. With an experienced marine construction team, building in the coastal zone can be done with great success.

Before choosing your contractor, note that whether you are involved in a new build or renovation, you will need:

- Access for heavy equipment to get to the shore (a 6m wide roadway is generally good enough);
- Sources and shipping for the key materials - sand and boulders mostly;
- A recycling plan for excavated material on site to reduce disposal costs;
- Mitigation measures embedded in the design, planning and implementation to protect the marine environment.

Taking Care of Your Beach Investment

Another factor in your beach creation is whether the sargassum bloom that has been plaguing the Caribbean in recent years will be a problem for your property. Structures can be oriented to reduce or divert the build-up of sargassum, or floating barriers can be used to keep the weeds from reaching your beach. These solutions, however, only transfer the build-up to somewhere else and if left unattended, the seaweed will decay and eventually cause problems at your beach.

An important part of your mindset when you own a beach, therefore, must be daily maintenance. A beach is like a garden, needing daily care to be kept beautiful and well-manicured. Rake your beach daily and monitor its ebbs and flows with photos. If you are removing weeds or rocks do it so there is little to no removal of sand from the beach.

What is the cost of a beach solution?

The range of costs from design through planning and construction can be substantial: US$5000 to US$20,000 per linear meter along your shoreline. There are many factors that impact the final cost: the type of shoreline, desired beach width, amenities on the beach (jetties and gazebos, for example), whether structures are needed, access, where you source your sand and boulders and how you get them to your site.

Ready to Unlock New Value from your Waterfront Property?

Whether for you and your family or for paying visitors, you can add tremendous value to the property with a beach. Contact us today if you are interested in a free preliminary consult with one of our coastal engineers; we can provide a professional opinion on your property's potential.

SMITH WARNER INTERNATIONAL

Jamel Banton has been designing and building beaches around the Caribbean since 1997

When the coast is the question, we are the answer.