



Review of the

Draft Ocho Rios Marine Park Protected Area Zoning Plan 2015 - 2020

Done by

National Environment and Planning Agency

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This document contains the professional opinion of the Jamaica Environment Trust (JET). In arriving at our opinion we made every reasonable attempt to ensure that our resource persons are informed and reliable and experts in the area in which their comment and analysis is sought. JET encourages readers to apply their own critical analysis to the information provided in this document and by others, particularly where JET's opinion differs from those others.

Summary Evaluation

The Draft Ocho Rios Marine Park Protected Area Zoning Plan is a positive development and welcome tool to assist in the management of the Ocho Rios Marine Park. Many of the key elements of a successful zoning plan have already been considered and are included. Our review seeks to highlight areas where additional attention and analysis could be done in order to ensure the end result of a well-managed protected area.

Comments

The Scientific Elements Should Be More Rigorous

The site description reads as follows:

“The coastline of the ORMPPA is characterized by natural and man-made beaches, limestone cliffs, and numerous costal developments such as the commercial town of Ocho Rios, hotels and villas. Other coastal developments include a cruise ship pier, and the Reynolds Bauxite Pier from which sugar and limestone is exported. The coast rises into limestone hills inhabited by small communities and farm lands, and is the source of the rivers which flow into the ORMPPA including Dunn’s River, Turtle River, White River and Roaring River” (ORMPPA Draft Plan p. 1).

Have scientific surveys been conducted to assess what impacts already exist in this area? In order to properly manage the marine park and meet its multiple objectives, a thorough baseline characterization must be undertaken, so that managers can be realistic and adaptive in their efforts to protect the area and still make it available for human use.

Further to this point, the marine resource assessments only include fisheries, water column, coral reefs and seagrasses (ORMPPA Draft Plan p. x). There are some key resources and habitats missing here, such as invertebrates (besides corals), sea turtles, marine mammals, sea birds, and the rocky shore and beach habitats, which may be important turtle and bird nesting sites in this area. Rocky and sandy shores are listed under the marine resources section (ORMPPA Draft Plan p. 9) but it is not clear that they were surveyed. The resource assessment should be thorough.

Incidentally, although one of the six central activities listed for the ORMPPA is to, “Provide a refuge for threatened species such as sea turtles,” (ORMPPA Draft Plan p. x and p. 4), there is absolutely nothing in the document about nest surveys or shoreline surveys conducted, or any sea turtle surveying or sitings. Are there actually turtles in this area, which is heavily impacted by tourism and marine commerce? It is difficult to envision how the plan as it is currently written will be able to successfully protect them if they are there. The central activities should more closely match the surveys that are conducted to identify and quantify the species that are actually present in the area.

Zoning Types Can be Confusing to the Public and Enforcement Officers

Some of the lessons learned from the Great Barrier Reef zoning have been:

“‘Split’ zoning (i.e. partial zoning, particularly around a single feature such as an island or an individual reef, resulting in part of the area as one type of zone while the remainder of the area is another type of zone)—in many cases split zoning has caused problems for public understanding, compliance and enforcement and is no longer a recommended approach. Furthermore, split zones are of questionable ecological value, particularly some of the smaller areas developed in earlier zoning plans. As far as practicable, single zonings or regulatory provisions should surround areas with a discrete geographical description (i.e. single islands or reefs should avoid having multiple zonings or split zonings)” (Day 2002, p. 146).

“...experience has shown that too many zone types with only minor differences can confuse the users as well as complicate enforcement. For example, fishing by trolling for pelagic fish (i.e. behind a moving boat) is allowed in a Buffer Zone, while other types of line fishing are prohibited. However, demersal fish can be caught while trolling; furthermore, as much of the offshore patrolling is undertaken by aerial surveillance, it is extremely difficult to determine from a surveillance aircraft whether a vessel is trolling for pelagics or line fishing for other species” (Day 2002, pp. 147-8).

The same potential for confusion exists in the ORMPPA, where areas with different zoning designations have been imposed on similar or the same habitats, (ORMPPA Draft Plan Figure 3, p. 7). It may be that after a stronger analysis of how all these zoning types will actually fit together in practice that this design is the best. But no justification or analysis is offered in the document.

Comments on the Specific Zone Types

Objective 3 of the conservation zone is, “to increase the resilience of coastal and marine ecosystems to the effects of climate change” (ORMPPA Draft Plan p. xii). How exactly will setting aside conservation zones mitigate the effects of climate change? Is the idea to reduce other stressors, such as excess nutrients, so that the stressors caused by climate change will be more easily withstood by the species in the conservation zone? There is an increasing body of work in the marine protected area management literature on this exact topic that the Draft Plan should cite and include in the planning.

Who decides what constitutes “ecological restoration/conservation activities” (ORMPPA Draft Plan p. xii)?

What is the 6 knot speed based on in the No Wake Zone? (ORMPPA Draft Plan p. xiii). That speed is greater than the 5 mph used in US Boating standards.

There is a significant and repeated discrepancy within the description of the Dive and Snorkel sites. The text states both that no motorized vessel should be within 30 m and within 50 m of a dive site with a flag (ORMPPA Draft Plan p. xiv and p. 24 and p. 26). This discrepancy should be rectified or if there are two different distances to adhere to the difference should be clarified.

The Literature Review Should be More Informative

The literature review does not contain any scientific or policy documents other than those that pertain to the ORMPPA. However, there are many useful papers and websites that contain valuable information about how to develop successful protected zones. Among them, the Marine Life Protection Act in the United States is considered a model for how to approach zoning in the ocean and many important lessons have been learned during the zoning planning process for the Great Barrier Reef in Australia. Although the ORMPPA covers a much smaller geographic region, some of the information and lessons learned in other regions are still valuable and could be included in the planning for Ocho Rios.

Some of the papers include:

Day, J. C. 2002. Zoning—lessons from the Great Barrier Reef Marine Park. *Ocean & Coastal Management* 45: 139-156.
(sent as an attachment)

Klein, C. J., C. Steinback, M. Watts, A. J. Scholz, and H. P. Possingham.
2010. Spatial marine zoning for fisheries and conservation. *Frontiers in Ecology & the Environment* 8(7): 349-353.
(sent as an attachment)

Some of the websites with good information are:

The Ecosystem Based Management Tools Network
(<http://www.ebmtools.org/msptools.html>)

The California Department of Fish and Wildlife
(<http://www.dfg.ca.gov/marine/mpa/background.asp>)
(<http://www.dfg.ca.gov/marine/mpa/index.asp>)

The Partnership for Interdisciplinary Studies of Coastal Oceans
(<http://www.piscoweb.org/policy/marine-protected-area-policy/marine-protected-area-design/california-marine-life-protection-a>)

The Massachusetts Ocean Management Plan (2009)
<http://www.mass.gov/eea/waste-mgmt-recycling/coasts-and-oceans/mass-ocean-plan/final-massachusetts-ocean-management-plan.html>

The Oregon Territorial Sea Plan
http://www.oregon.gov/LCD/OCMP/pages/ocean_tsp.aspx
See especially Part 5 related to development of marine hydrokinetic energy
http://www.oregon.gov/LCD/docs/rulemaking/tspac/Part_5_FINAL_10082013.pdf

Florida Keys National Marine Sanctuary Management Plan
<http://floridakeys.noaa.gov/mgmtplans/2007.html>

UNESCO

http://www.unesco-ioc-marinesp.be/msp_around_the_world?PHPSESSID=6jh9ntt3ec305eft0va9q4b6j3

References to relevant legislation is inadequate.

The Draft plan makes reference in the section on Literature Review and throughout the document to several laws relating to the operation of the Ocho Rios Marine Park including the Beach Control Act, however, it does not reference the Natural Resources (Marine Parks) Regulations, 1992 which applies to declared marine parks. The Regulations allow the Natural Resources Conservation Authority (NRCA) to declare zones in marine parks and to declare in writing any specific measures related to activities that can take place in the park. See for example, regulation 8(3) on fishing: number of fish, types of equipment and devices that can be used.

The operational time period for this plan does not appear to be in keeping with the legislative framework. The Draft Ocho Rios Marine Park Protected Area Zoning Plan indicates that the period of operation for the plan is 5 years (2015-2020). However, regulation 22(4)(b) of the Natural Resources (Marine Parks) Regulations mandates the NRCA to publish the zone plan in the Gazette and a daily newspaper once every three years.

The Draft Ocho Rios Marine Park Protected Area Zoning Plan makes reference in the sections concerning Literature Review to The Town and Country Planning (Kingston and Saint Andrew) Provisional Development Order, 2008 (Draft) unpublished at pages xi and 5 of the Draft Plan. We fail to see the relevance of this plan but note that there is no reference in the Draft Plan to The Town and Country Planning (St. Ann Parish) Provisional Development Order, 1998 which itself includes provisions relating to uses along the coast and the Ocho Rios Marine Park (See for example, Policy OC 1, OC 2 and OC 3 on pages 64 – 65 of the Provisional Development Order).

The Draft Plan does not mention land-based activities that can impact the marine park

Land-based activities can have a severe impact on marine ecosystems; specifically activities that generate non-point runoff of chemicals, nutrients, and sediments. However, the Draft Plan does not show that there is this linkage of the marine area to the land and does not reference any such harmful land-based activities.

The Plan lacks details of specific measures to address the objectives of the Plan

The Draft Ocho Rios Marine Park Protected Area Zoning Plan states on pages x and 3-4 that the objectives of the plan are *inter alia* to:

- Regulate fishing, recreational and tourism related activities to ensure adequate space for users, safety of users and the sustainable use of the resources.
- Provide a refuge for threatened species such as sea turtles.

The Plan does not specify how certain activities should be undertaken so as to prevent environmental harm and sustainable use of resources. See below specific activities that could be more clearly explained in the Draft Plan.

a. Fishing

For instance, the Plan does not specify how fishing should be conducted in the Marine Park even though regulation 8(3) of the Marine Parks Regulations provides that the NRCA can specify the kind of fish that can be caught or that is prohibited, the number of fish that can be caught per person, the type of fishing equipment that can be used and the devices that can be used for fishing.

b. Sea Turtles

The Plan does not include details of restricted activities that could have a harmful impact on sea turtles. For instance, there is no reference to the use of turtle friendly lighting along the coast at night or restrictions on the type of fishing devices that can be used.

c. Conservation Zone

The Plan states that an objective of the conservation zones is to increase the resilience of coastal and marine ecosystems to the effects of climate change (see page xii and 15). While the Plan does specify that coastal modifications, construction or maintenance of any encroachment which falls under the beach licensing regime, it should specify that wetland reclamation and removal of mangroves is prohibited. Mangroves serve an important function as a buffer for the shoreline against storm surges and increased and intense storm surges are one of the impacts of climate change.

It is also unclear how existing activities that fall within the conservation zone will be regulated under this zoning plan. For instance, the Dolphin Cove facility is located in the conservation zone. This facility requires the use of overwater structures. They have in the past, applied for and received approval to expand the facility. The use and further expansion of the facility is not consistent with the objectives and user activities for the conservation zone.

d. User activities – Activities with an environmental footprint that will not adversely impact the functionality of the area’s ecosystems and that of adjacent zones.

The Draft Plan makes reference to allowing “activities with an environmental footprint that will not adversely impact the functionality of the area’s ecosystems and that of adjacent zones” in all the zones. This “activity” is not clearly defined and there is no guidance in the Plan as to how the NRCA or NEPA is to determine whether activities would adversely impact the functionality of the area’s ecosystems. The Plan should reference the use of existing management tools to decide on whether activities would or would not fall within this category e.g. the use of environmental impact assessments, rapid environmental assessments or other environmental studies to specify a list of activities that would absolutely be prohibited (e.g. sand quarrying, dredging etc.).

Conclusion

In summary, we recommend the following additions and alterations to the Draft Ocho Rios Marine Park Protected Area Zoning Plan (2015-2020):

- 1) A thorough survey of all marine resources, species and habitats, including sea turtles because they are specifically highlighted as being important in the management plan;
- 2) A survey of baseline conditions and impacts, so that the protected area can be realistically and adaptively managed;
- 3) A review of the existing literature on zoning, including lessons learned from other sites around the world, so that the zones suggested can be easily identified and realistically managed;
- 4) More rigorous commitment to specific objectives, including protecting the species and habitats in the conservation zones against climate change;
- 5) Reference to all applicable legislation for zoning marine parks, in particular the Town and Country Planning (St. Ann Parish) Provisional Development Order, 1998 and the Natural Resources (Marine Parks) Regulations;
- 6) More details on how the authorities will assess user activities under the categories:
“activities with an environmental footprint that will not adversely impact the functionality of the area’s ecosystems and that of adjacent zones” and “ecological restoration/conservation activities

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