



Delivered Electronically and Physical Copy

9 November 2012

Mr. Danier Lightbourne  
Physical Planning Board  
c/o Physical Planning Department  
Providenciales  
Turks & Caicos Islands

**RE: PR11370 “Proposed Dolphin Park”**

Dear Mr. Lightbourne:

The Turks & Caicos Reef Fund is strongly opposed to the proposed “Dolphin Park.” Our opposition is based on a variety of reasons including animal welfare, ecologic/environmental, economic, scientific and country image reasons. Below we outline the details of our opposition.

#### **Animal Welfare Reasons**

- Unlike other animals, such as lions and tigers, research has demonstrated that the average survival rate of bottlenose dolphins in captivity in well-managed facilities is no better than the average survival rate of animals in the wild. There remains, however, a great deal of variability in this with many facilities holding bottlenose dolphins whose survival rate is considerably worse than that of wild dolphins. (Innes, WS, Master Thesis, Duke University, 2005, abstract found at <http://www.openthesis.org/documents/Survival-rates-marine-mammals-in-501413.html>). The average survival rate for wild dolphins is about 25 years, while it drops to about 20 years in captivity. ([http://sailhawaii.com/captive\\_dolphins.html](http://sailhawaii.com/captive_dolphins.html))
- Although there are now captive breeding stocks of bottlenose dolphins, most of the animals on exhibit continue to be captured from wild

populations. Capture methods are very aggressive and cruel to the animals. They also cause a six-fold increase in the mortality rate immediately after capture according to a US government maintained database (the Marine Mammal Inventory Report). Even though the dolphins intended for this facility are said to be coming from the Dolphin Cove facility in Jamaica, one has to wonder where they were obtained for that facility. Also, will additional new dolphins be subsequently captured to replace the four moved to Providenciales from Jamaica?

- Bottlenose dolphins are highly intelligent and social animals and form pods that are like a close-knit family. Capturing wild dolphins breaks up these social structures thereby creating stress on the uncaptured dolphins, as well as the captured dolphins. It would be the equivalent of an alien coming down from space and absconding with your mother, grandfather or an uncle living in your home. You would suffer stress and anguish at the loss, as would your relative, and neither individual would likely be better off.
- Animals held in captivity require regular medical attention, just as humans do. They get sick, should have an annual physical and occasionally need to have injuries treated. Adequate veterinary services on site with properly maintained health records for each animal is required as are proper medical isolation pens for treatment, monitoring and quarantine for newly arrived dolphins. A visit from a marine mammal veterinarian every three months as proposed in this plan is inadequate. To the best of our knowledge, there are no properly trained resident marine mammal veterinarians on Providenciales to provide emergency care during the many months the project's veterinarian is elsewhere. The proposed "Dolphin Park" appears to include a single emergency holding tank and it is not clear whether this is isolated from the other pens or adequate to house the planned four dolphins for a quarantine period. A sick dolphin and quarantined dolphins must be completely isolated from the rest of the animals to prevent the spread of disease to the other animals, as well as isolated from local waters to prevent the spread of disease to wild, native dolphins.
- The TCI Government has not established any regulations setting standards for the public display of marine mammals. In fact, until only recently, this activity was banned in the TCI. A good example of the type of regulation that should be in place can be found in the US Federal Code of Regulations (9 CFR Subpart E - Specifications for the Humane Handling, Care, Treatment, and Transportation of Marine Mammals). This is critical to ensure that the animal's safety, quality of life and the quality of the facilities and staff are adequate. This clearly is not something that can be left solely to the discretion of the owners of the facility whose incentives will be only to control costs and ensure high profits.

- Bottlenose dolphins typically swim 40-100 miles per day, so containment areas must be an adequate size and depth for their safety and health (<http://teacher.scholastic.com/dolphin/conwin1.htm>). Although the proposed pool sizes appear to be adequate per US standards for 4 adult captive dolphins, will it be adequate for the total number of dolphins that will eventually inhabit the space?
- In addition to not having government regulations in place governing the operation of such a facility, none of the Dolphin Cove operators in Jamaica, Florida or Grand Cayman, appear to hold any accreditation by any recognized international organization (American Zoological Association, Alliance of Marine Mammal Parks and Aquariums) that ensures the safe and proper exhibition and care of marine mammals. These organizations not only require compliance with care and handling of these animals, but they also set standards for conservation and educational programs related to marine mammals such as dolphins. Without holding such a membership raises serious questions about the adequacy of care that will be provided to these highly intelligent marine mammals.
- There are no stated provisions for how the dolphins in the facility will be cared for in the event of a major weather event such as a hurricane. When tropical storms come from the South, the storm surge could easily overwhelm the holding facility. The likely result would be either the release of the captive animals into the wild with unknown consequences to the wild, native dolphins, or injury to the captive dolphins. There do not appear to be any emergency holding facility provisions to deal with this type of weather event.

### **Ecological/Environmental Reasons**

- A single adult dolphin produces about 4 liters (1 gallon) of urine per day and 1.4 kilograms (3 pounds) of feces. (<http://understanddolphins.tripod.com/dolphinfeeding.html>) That translates into 12 pounds of feces a day and 4 gallons of urine a day for four adult bottlenose dolphins, or 360 pounds of feces and 120 gallons of urine each month. Dumping that much human waste into a canal would not likely be deemed acceptable by anyone, so why is it for the proposed “Dolphin Park?” As the application implies that the “Dolphin Park” will simply use tidal water flow from the canal to fill and maintain water levels in their exhibit pool, this will likely be inadequate as the pools are to be dredged to a depth of 12 feet while the canal depth will only be 9 feet. This means, at a minimum, the bottom three feet of water in the holding pens will become stagnant and collect the feces of the 4 adult dolphins creating an unhealthy environment for normal marine animals. Also, one has to wonder what impact will the daily waste generated by 4 adult dolphins have on the water quality in the canal and on the quality of life of those living and working both upstream and downstream from the facility? How

this impact will be mitigated is another question that must be thoroughly and satisfactorily answered prior to any permits being issued.

- No studies have been presented documenting that the proposed location has sufficient tidal flow to ensure that adequate and complete flushing of the holding facility will occur with every tidal change.
- A single adult dolphin eats between 7 and 11 kilograms (15-25 pounds) of food per day or about 4-6% of their body weight. (<http://understanddolphins.tripod.com/dolphinfeeding.html>) With 4 adult bottlenose dolphins, the daily food consumption will be as much as 44 kilograms (97 pounds) of food or nearly a ton and a half of fish each month. If that food is sourced locally, the impact on the local fishing industry will be substantial as will the likely long-term impact on local fish stocks. If the food is sourced elsewhere, what guarantees are there that the imported fish fed to the dolphins won't be a source of disease that could infect local fish stocks?
- From the description provided in the Gazette, it appears that there will likely be insufficient quarantine holding for any imported animals. Quarantine holding space must be completely isolated from the ocean and all other holding tanks to ensure that imported animals do not accidentally spread disease to native dolphin populations. Quarantine in Jamaica, as mentioned in the planning documents, should not be considered adequate as one does not know what non-native flora and fauna from Jamaica would be transferred to the waters of the TCI. For example, the New England Aquarium in Boston holds new fish in their own quarantine facility for at least 30 days and usually longer before they are introduced into one of their exhibits. The quarantine period for other species can be much longer. A quarantine period for non-native dolphins brought to Providenciales should be mandatory in holding pens totally isolated from the native marine environment. In other words, not quarantining these animals upon arrival on Providenciales could result in new diseases being spread to the local native dolphin population and other plant and animal species.

## **Economic Reasons**

- A big question is, who in the local economy will benefit from this operation? The operation may create a number of jobs, but it is likely that none of the well paying positions will benefit local TC Islanders. Certified and experienced marine mammal trainers will be brought in from outside the country to train and supervise the care of the animals. The only likely jobs going to local TC Islanders will be shop clerks and laborers and the proposal does not specify the number of those positions. At least six of the proposed 20 employees will be expatriate trainers.

## Scientific Reasons

- Regardless of what may be said by the developers, there is no scientific merit to the proposed “Dolphin Park.” It will only serve as entertainment for visitors. Bottlenose dolphins are not a threatened or endangered species and research on them is best done in the wild. Placing dolphins in this facility is being done purely for business reasons.

## Country Image Reasons

- The Turks & Caicos constitution (Clause 18.2) states that the TCIG “should adopt reasonable legislative and other measures to protect the built heritage, the wildlife and the land and sea biodiversity of the Islands that – (a) limit pollution and ecological degradation; (b) promote conservation and biodiversity; and secure ecologically sustainable development and use of natural resources. This clearly implies that environmental protection should be mainstay of all development efforts, a standard that the proposed “Dolphin Park” does not meet.
- The Turks & Caicos Islands have a large and healthy wild dolphin population in our waters, which offer many opportunities for wild dolphin encounters. Although these are not planned encounters, JoJo and other local wild dolphins frequently interact with boats cruising in the waters around Provo. What better way to experience these gorgeous and intelligent creatures than to see them in their natural environment.
- The UK has banned captive dolphin facilities and forced the closure of the last existing facilities in that country in the 1990s. The last three captive dolphins in the UK were, in fact, brought to the TCI to be released back into the wild. It seems contradictory to the image of these islands as “Beautiful by Nature” would become “Beautiful in Captivity.”

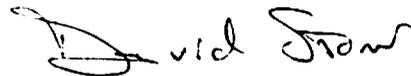
In summary, the risks of damage to the TCI waters, wildlife, fisheries and reputation outweighs any financial benefit to the local economy. Only the owners of the park will reap financial rewards, if there are any. Public opinion will surely not be in favor of such a facility and the reputation of our “Beautiful by Nature” Islands will certainly be diminished.

Thank you for your consideration.

Best Regards,



Don Stark  
Chairman



David Stone  
Deputy Chairman

cc: Turks & Caicos Conservation Society  
TCIG Department of Environment and Maritime Affairs  
Turks & Caicos Islands Tourist Board  
TCI Fisheries Advisory Committee