

National Trust of the Cayman Islands
Report of the Brac District Committee on the Proposed Daggaro Project

The Brac District Committee of the National Trust of the Cayman Islands is strongly opposed to the Daggaro project to develop a private Black Hawk helicopter facility in Cayman Brac. The plans to date include a hangar, pad, administrative building, 8-foot security fence, and vehicle and plane access to the existing runway. The proposed location in the island's West End, directly west of and adjacent to the West End Community Park, is especially sensitive, but more generally the project is not in keeping with the heritage values and natural, social, and cultural environment of Cayman Brac nor will it economically benefit the Brac or the Cayman Islands. The Brac District Committee has a number of objections to the project, which are summarized below.

1. Negative impacts on the natural environment

1.1 In general

The proposed site of the Daggaro project would raze the only remaining remnant of tropical dry forest in the Brac's far West End. In spite of its small area, this long, narrow triangle of intact woods contains a wealth of biodiversity and offers one of Cayman Brac's main habitats for several significant species, especially the critically endangered Lesser Caymans Rock Iguana. This environmentally fragile remnant of native forest contains a broad, representative sample of plants and trees native to the Cayman Islands. The site also encompasses a small, significant tidal wetland (see West End Turtle Kraal and Nurse Smith Pond and Cave in section 2) that is part of the larger system of wetlands of international significance found in Cayman Brac's West End.

This woodland is adjacent to the West End Community Park, Cayman Brac's only wooded, multiple-use community park. The park includes the Brac's best equipped and most used children's playground, an exercise loop trail with 20 stations spearheaded by Rotary, a tree identification program, and an outdoor amphitheater. The forest that Daggaro proposes to clear abuts the exercise loop, other woodland trails, and the children's playground.

1.2 Significant species

1.2.1 Iguanas

The West End Park and adjacent woods provide habitat for the largest concentration of the Lesser Caymans Rock Iguana (*Cyclura nubila caymanensis*) remaining in Cayman Brac. This endemic subspecies is native to the Sister Islands and is in decline from habitat encroachment by human development, especially traffic, and predation by feral animals. Nearly extinct on Cayman Brac, it is estimated that fewer than 100 animals may now remain. This species is listed as critically endangered by IUCN and was added to the "Red List" of vulnerable, threatened, and endangered species in 2012.

Data from 2013 indicate that more than 10 percent of the 160 iguanas remaining at that time were found in the West End Community Park and surroundings (MAIN DATABASE Brac Iguana Mark-Recapture Survey, Excel workbook 2012, with updates 2013). The percentage remaining in the West End has likely increased as critical populations in the South End and Bluff have been killed, mainly by motorists. West End Community Park is the main site where tourist, visitors, and residents alike, including local school groups, go to observe these rare creatures. Destruction of this fragile habitat could result in extinction of this species on the Brac. Firstly, these woods are a nesting area for this critically endangered species, and few nesting areas remain in the Brac for the Lesser Caymans Rock Iguana. Secondly, contrary to what is called for in the planning permit and has been done in the past on Grand Cayman, relocation of these animals is not feasible on Cayman Brac. The fact that the planning board is unaware of this underscores the need for expert consultation and an environmental assessment before permits are given for projects in fragile natural environments.

1.2.2 Birds

More than 200 species of birds have been identified on the Sister Islands with approximately 180 found in Cayman Brac. These include the very rare, near threatened Vitelline Warbler, and many others classified as vulnerable, near-threatened, and/or rare, including several endemics (<https://avibase.bsc-eoc.org/checklist.jsp?region=KYcb&list=howardmoore>, retrieved 16 December 2020). Virtually all known species have been observed in this remaining slice of West End woods, where a number of nests are also found. Significant species seen include the aforementioned Vitelline Warbler (*Setophaga vitellina*, subspecies *crawfordi*, known as Crawford's Vitelline Warbler), a bird found only in the Cayman and Swan Islands with this rare sub-species endemic to the Sister Islands (*Taxonomy of the birds of the world*, p. 519, The German National Library: 2018); the Brac subspecies of the Cayman Parrot (*Amazona leucocephala hesterna*); and the Cayman Bananaquit, an endemic subspecies found on the three islands. Other notable birds that reside in West End include the West Indian Whistling Duck and several species and sub-species of tropical ground doves, elaenias, and vireos.

Five breeding seabird colonies are found in the Sister Islands. On Cayman Brac, these include possibly the most concentrated colonies in the region of Catesby's Tropicbirds and Brown-footed Boobies that are nesting on a residential island. Given the small size and proximity of the Sister Islands, especially at the West End, helicopter and drone activity anywhere on the islands, regardless of where the aviation equipment is housed, would be disruptive to the nesting colonies and other birdlife.

1.2.3 Flora

This West End woodland is made up of many plants that historically sustained the Brac community. Using their traditional names, native trees and shrubs found in this patch of forest include Mahogany, Whitewood, Bastard Mahogany, Jasmine, Pompero, Washwood, Duppy Bush, Headache Bush, Cherry, Wild Ginap, Broadleaf, Spanish Elm, Cabbage Tree, Silver Thatch, Scorn-the-Ground, Pepper Cinnamon, Narrow-leaf Ironwood, Strawberry, Bull Hoof, White Fiddlewood, Boxwood, Bastard Chellamella, Sea Grape, Mulberry, and many more.

1.3 Noise pollution

Black Hawk helicopters and drones (there is an inconsistency as to whether drones are part of the Daggaro project or not, see section 4) are noisy, intrusive, and will disrupt the peaceful life on the Brac. Sensitive fauna will be disturbed, as will the human community's quality of life not only in West End but in the entire island, given its small size (see also section 3 on social and economic impacts). The noise could also potentially affect the tranquility of Little Cayman.

Noise pollution is cumulative and is a function of both duration and intensity. The decibel (dB) scale is not linear; 100 dB is 8 times as loud as 70 dB. At the meeting of the planning board on December 1st, the Daggaro spokesperson stated that there would be about two flights a day. Even this number of flights would substantially increase noise levels in the Brac. Daggaro's CEO stated in his interview with Marl Road that the noise signature of Black Hawk helicopters is less than commercial aircraft such as 737s; however this is not accurate.

According to Jones, et al. (2018), for UH-60 Black Hawk helicopters, "Measurements reported here show noise levels of 105 dB or greater in all operating conditions... Additionally, sound field contours indicate noise hazard areas (>85 dBA SPL) can extend beyond 100 ft from the helicopter." (Jones, Heath G. et al., *The Danger Zone for Noise Hazards around the Black Hawk Helicopter*, <https://pubmed.ncbi.nlm.nih.gov/29789088/>, retrieved 16 December 2020). To put 105 dB into perspective, a whisper is about 30 dB, normal conversation about 60 dB, and a motorcycle engine running

is about 95 dB. Noise above 70 dB over a prolonged period may start to damage hearing. Loud noise above 120 dB can cause immediate damage to human ears (https://www.cdc.gov/nceh/hearing_loss/what_noises_cause_hearing_loss.html, retrieved 17 December 2020).

2. Negative impacts on cultural heritage

The historic West End Turtle Kraal will be destroyed by the proposed development. This important heritage site is found not far from the West End Community Park in the forest remnant and is accessed by a traditional trail that starts behind the children's playground. The best remaining turtle kraal on the north side of the island, and possibly in the Sister Islands, it is a tidal pool fed by a collapsed underground river. Because it is safe and easily accessible, the West End Turtle Kraal has been visited by thousands of people over the years. It continues to be regularly visited by school groups, other youth groups (church and non-church), residents, and some tourists. A second site, Nurse Smith Pond and Cave, is close to the kraal and was well known to old-timers. Also part of a collapsed underground river, the pond is of interest to geologic and marine science with observable intact ancient corals.

A number of members stated that the importance of losing this historic heritage site could not be overemphasized, especially considering how few such cultural sites remain in the Brac. To directly quote several members: "The children of this island need to visit this remaining turtle crawl to keep in touch with their heritage"; "The crawl has historical value as it has Caymanian history tied to it. No matter how short our history is, it has value. This can't be emphasized enough."; "It was positively insulting to sit in that room [at the December 1st planning board meeting] and have a retired US general exclaim the Turtle Crawl was simply a 'hole with nothing but stagnant, stinking water'."

3. Negative impacts on the social and economic environment

3.1 In general

In addition to environmental and heritage concerns, Daggaro has failed to demonstrate that there is any need for this project or for their services in the Brac, or more generally in the Cayman Islands. Brac District Committee members identified no social or economic benefits from the private company's proposed Black Hawk facility for the Brac, Little Cayman, or Grand Cayman. On the contrary, the presence of such a facility would be expected to reduce the desirability of the Brac for hotel tourism, vacation rentals, and the purchase of vacation homes, and might also negatively impact Little Cayman.

3.2 Ambiance

The far west end of the Brac's north side is a particularly beautiful, peaceful residential area. Several of the Brac's loveliest, restored traditional homes are found there as are many newer beautiful, expensive homes and properties. Not only will the quality of life of the residents and homeowners in this neighborhood be affected, but also the appeal and real estate values in this section are likely to suffer.

The Brac's tourism industry is located primarily in the far west end on the south side. The two main hotels, largest condominium developments, and popular restaurants and bars are found there. All would suffer from the noise and visual disturbance of helicopter traffic, and both the north side residential and south side tourist development would be impacted by light pollution from the proposed facility's necessary security lights. Negative impacts on property appeal and value may extend beyond the residential and tourist sections near the airport, considering the intrusive nature of helicopters and drones visually and audibly.

The appeal of the West End Community Park would be lost, so although the park itself would remain intact, its use would likely become minimal. The presence of a military-style helicopter facility adjacent to a community park, especially one used frequently by children and families and visited by tourists, is inappropriate. The scenic beauty of the West Side Road from the park to the turn would be destroyed, with possible impacts to James Scott Drive and Georgiana Drive as well.

In the aforementioned interview with Marl Road, Daggaro's CEO stated that property owners who choose to live near the airport cannot legitimately complain about noise. He supported this by referencing the noise of 767s and the many 737s taking off and landing day and night, demonstrating a serious lack of knowledge about conditions in Cayman Brac. During normal operations (pre- and presumably post-Covid), the Cayman Brac airport receives maybe five 737 flights a week, almost entirely on weekends, several flights a day of smaller aircraft (the Saab and Twin Otter), and virtually no flights at night. The airport does not receive 767s or any aircraft larger than those used by Cayman Airways.

3.3 Militarization

The disruption to the Brac's ambiance would be exacerbated by the perception and image of "militarization" that will result from Black Hawk flights and just the sight of such a facility and aircraft. Along with the beauty of its natural environment and its tranquil ambiance, the Brac attracts tourists and visiting homeowners because of its stable governance, lack of crime, security, and freedom from the problems that afflict most countries in the region; all of which are contradicted by the rational and visceral responses of most civilians to military and paramilitary-style development. Although there are now civilian variants and limited civilian uses of Black Hawk helicopters (see section 4), the public perception of these machines and their facilities is still military.

Members also considered that it might not only be residents, homeowners, and tourists who would be negatively affected by the image of militarization. Given the Brac's proximity to Cuba, questions were raised about the perception Cuba might have to the presence of US military helicopters, albeit "repurposed" for civilian use, based in the Brac. The Cayman Islands maintains a careful, neutral stance with Cuba; could this potentially be thrown off balance by regular Black Hawk helicopter flights in the region emerging from the Cayman Islands?

3.4 Tourism

The peaceful, environmental values of the Brac and the lack of mass tourist development make it an ideal, unique site in the Caribbean for eco- and cultural tourism. As mentioned, tourism development is concentrated in the far southwest end. In addition to the effects of noise, lights, the perception of militarization, etc. on tourists, several other concerns were identified. For example, what about the first impression of visitors arriving in Cayman Brac in future, whose first sight of the island would be a Black Hawk facility surrounded by an 8-foot security fence topped by razor wire? Clearly this would be antithetical to the image of a tranquil, welcoming, eco-friendly island and would contradict the Cayman Islands marketing of the Brac.

The question of whether economic benefit from the helicopters would outweigh the negative impacts to eco-cultural tourism was raised. Members all thought not, which highlighted the need for a comprehensive cost-benefit analysis (see section 4). The presence of helicopter flights daily, or at least regularly, in tourist and residential areas would be a deterring factor for repeat tourism, vacation home purchases and rentals, and the purchase of property to build second homes, all of which are major economic drivers in the Brac.

4. Additional concerns, issues, and questions

4.1. In general

The Brac District Committee identified a number of additional issues. Some of the fundamental concerns are the failure to consult the public with a total lack of public forums, meetings, or venues to hear from the Brac community. There is a lack of accessible, transparent information available to the general public (see below). Members were also disturbed by the government's failure to require even a basic environmental concept paper and economic analysis, if not a complete environmental impact assessment (EIA) and full cost-benefit analysis.

Daggaro is a private company proposing to launch a business with its operations end located in Cayman Brac. But, significantly, it has no demonstrable track record or any operations elsewhere, according to their own CEO; no proof that it has the experience or training to carry out any of the proposed activities, successfully or otherwise; and no contracts with any government in the region or letters of support.

4.2 Lack of transparency

A number of questions were raised about the lack of transparency. All members agreed that the purpose of the proposed facility is unclear. For example, the CEO stated that disaster response, MedEvac, and training are the primary purposes of the company; however, the company website refers to ISR (Intelligence, Surveillance, Reconnaissance) as functions the company performs. In the small amount of information the public has been given, local messaging has been consistent only in its inconsistency. This has resulted in a legitimate lack of trust about Daggaro's intention or purpose in locating such a facility in the Brac. Not only has information presented locally been inconsistent with the company's website, information given in interviews and at the December 1st Cayman Brac planning board meeting were often contradictory: drones/no drones, training/no or very little training, jobs/no or very few jobs, two regular flights a day/occasional needs-based flights.

4.3 Black Hawk helicopters

Members also find the business dubious because its purpose, however unclear, is based on the use of Black Hawk helicopters. If the Black Hawk range is limited to 400 miles, as stated at the December 1st meeting, or 450 miles as stated in the CEO interview, Daggaro's proposed "regional" business can cover a very limited area within the wider Latin American and Caribbean region, reaching Jamaica, Cuba, and south Florida. According to the meeting and interview, one of their main activities would be hurricane/disaster relief. But given their limited range, for the former helicopters would most likely be required to hover and would be unable to refuel, cutting their already limited range at least in half. MedEvac was said to be another principle activity. Within the helicopter's range, MedEvac from where to where? The Cayman Islands have been airlifting patients from Faith Hospital to Grand Cayman for years. In 2019, six members of Faith Hospital's medical team completed a 5-day medical crew course for doctors, RNs, and paramedics that surpassed Florida State requirements. Personnel in Grand Cayman are equally well trained, and Cayman's own state-of-the-art hospitals have superior links with first-rate overseas hospitals and already transport patients as required. What need could there be in the Cayman Islands to hire an untrained, untested private company and in what role?

Other concerns center on restrictions to civilian uses of Black Hawk helicopters and to training Black Hawk pilots. Initially Sikorsky, the manufacturer of Black Hawks, had this aircraft certified for military use only. In 2015, the US FAA relaxed the rules on civil-owned Black Hawks, allowing the UH-60A to be used in limited special operations in the restricted category such as firefighting or agriculture operations. However, many other civilian uses are still not permitted. Training of pilots remains highly

specialized and, as the CEO stated in the interview, not just anyone can become a Black Hawk pilot. Indeed, it would seem from their website, that Daggaro itself has no Black Hawk pilots.

4.4 Safety issues

A number of questions were raised about safety. For example, how are the air traffic controllers going to manage the airspace unless their training is upgraded to include helicopter flight? The helicopters will go onto the runway to take off and land; their entrance onto the runway is far from the terminal and out of sight of air traffic controllers. Since the proposed helicopter terminal would be adjacent to the park's playground, this would be a safety concern for the children because of engine fumes and possible fuel spills.

4.5 Future concerns

Finally, Brac District Committee members brought up a number of questions and concerns about the future of this project. It would appear that CIG has placed few limits on a private company that currently has no business or contracts. For example, what control exists over Daggaro's continued development and expansion? Their stated purposes today may be MedEvac and disaster relief, but if those don't work out, what will Daggaro do in future? Daggaro states that they will have very few flights and house only two helicopters, but what is to stop them from expanding the number of flights and amount of equipment? Will their presence lead to continued loss of quality of life in the West End and more widely in the Brac and perhaps Little Cayman? In regard to heritage and environment, what will be the long-term effect of losing a significant heritage site on the culture of the Brac, on the value children place on their Cayman heritage? Will biodiversity be lost and how will it impact cultural and environmental values? How about the future of eco-cultural tourism? Many such questions exist that have not even been asked of government and/or of Daggaro, much less satisfactorily answered or addressed.