



Friends of Casuarina Coastal Reserve Inc

SUBMISSION TO: Development Consent Authority (Darwin Division)

RE: PA2023/0340

Leisure and Recreation (Golf Course) addition to an existing caravan park with a club exceeding 8.5m in height in four stages.

[Lot 09289 Town of Nightcliff (622 Lee Point Rd, Lee Point)]

[Lot 09461 Town of Nightcliff (20 Buffalo Creek Rd Lee Point)]

1 Introduction

- 1.1 Friends of Casuarina Coastal Reserve (FCCR) is a recently formed not-for-profit community group which works to ensure that the natural values of Casuarina Coastal Reserve are recognised, protected, enhanced and cared for by advocating for its ecology, promoting respect for its values and acting with others who share these aims.
- 1.2 While our focus is often on the Reserve itself, it is recognised that what happens in the vicinity of the Reserve can have significant positive or negative implications for the natural values of the Reserve.
- 1.3 So what happens on Lot 2982 (the existing caravan park and resort) which has a 775m frontage along Lee Point road opposite the Reserve; and Lot 9461 (the proposed golf course development) which has a 667m frontage to Buffalo Creek Road opposite a Crown Lands Lot which borders the Reserve, is of interest to FCCR.
- 1.4 FCCR believes that this degraded site has - subject to, amongst other things, appropriate building and fairway design, best-practice sustainability features, protection of existing natural vegetation, selection of local plants for revegetation, effective water management and erosion control - the potential to be developed into a showcase golf course that enhances the beauty and ecological integrity of Lee Point and doesn't diminish the natural values of the Reserve.
- 1.5 FCCR was therefore very pleased to be offered the opportunity by Mr Stefano Morandini and Mr Alessandro Morandini Joint Directors of Morandini Investments Pty Ltd to learn about and make comment on this proposed golf course development before it was submitted to the Development Consent Authority (DCA). In addition to our meetings, FCCR provided some preliminary suggestions to enhance the compatibility of the golf course with local Lee Point plant and animal communities (and the Reserve) and increase environmental sustainability of the project.
- 1.6 The preliminary designs and operations presented, plus the expressed intent of Morandini Investments Pty Ltd to create an environmentally sensitive and sustainable facility, were positive early indications for this development. Reviewing the application indicates that there are some areas where further information is required and where improvements should be considered.
- 1.7 We now provide our formal comments on the Planning Application.

2 History of the site

- 2.1 It is understood that In February 2006 a Development Permit was issued to create a golf course on Lot 9461 (approval was not granted to consolidate lots 9461 and 9289).
- 2.2 As mentioned in this current application the site at that time was degraded due to various historical works including extensive gravel mining. Following that initial approval to develop a golf course the site was cleared, fairways were formed, wastewater stabilisation ponds and trunk sewers were constructed along with drainage and two dams. However, after this initial activity there did not appear to have been much work undertaken on golf course development. Indeed, it was noted that across the cleared areas and amongst the remnant native vegetation there were extensive weed infestations, notably Gamba Grass.

- 2.3 So currently, outside of the proposed fairways, there is a relatively clean slate upon which to create plant communities that support resident and invite visiting native birds, reptiles, insects and other animals – indeed to implement the features of the Landscaping Master Plan as listed on Page 13 of the Proposal.
- 2.4 It is also an opportunity to integrate and enhance environmental sustainability across all three businesses – the proposed Golf Course, as well as the existing Caravan Park and Resort.

3 Scope of approval sought from the DCA

- 3.1 It is noted that:
- 3.2 *The long-term intent of this development is to develop an 18-Hole golf course. However, this will be developed in 2 stages (Stage 1B & Stage 2) – each of 9-Holes. Note that Stage 2, a 2nd 9-Hole course would be subject to demand and a feasibility study based on the usage of the 1st 9-Hole course. [Our emphasis](P28 Proposal and Appendix C)*
- 3.3 Furthermore, the Environment Management Plan (EMP) (Appendix D) states that:
- 3.4 *Water availability will be a key factor in the future decision to expand the initial nine-hole course. [Our emphasis] (P8 EMP 1.8)*
- 3.5 We don't know if a Development Application can be considered by the DCA when only a half of the proposed development of a Lot is clearly defined, 'locked-in' and able to be assessed – by the community, relevant agencies and ultimately the DCA.
- 3.6 In this case it appears that Stages 1A & 1B, if approved, would be mostly completed by 2025. The applicant advises that in 2026 a feasibility and viability study will be conducted, the results of which would inform whether, and if so how, Stage 2 & Stage 3 might proceed.
- 3.7 **Comprehensive assessments of viability and feasibility should have been completed by the applicant prior to any application being presented to the community and the DCA.**
- 3.8 While not part of this application, the applicants did outline to FCCR three options for the 2nd 9-Hole part of the golf course but not that there was considerable uncertainty about whether construction of the 2nd 9 Holes would proceed.
- 3.9 Our review of available records indicates that this project has been underway since around 2005 with the applicants being granted a number of lease extensions by NT Crown Lands to complete the works. For example, the extensions registered March 2016 (Volume 809 Folio 496) and April 2017 (Volume 818 Folio 69) specify that an 18-Hole course must be constructed. Subsequent extensions in March 2019 and March 2023 (the current extension) have varied the requirements as they do not specify the number of Holes.
- 3.10 Any change from an 18-Hole golf course will mean that decisions will be required about the buildings and other works currently included as potentials in this application and particularly the land that was earmarked for the 2nd 9 Holes and their surrounds.
- 3.11 FCCR does not support a two-step approvals process, the second step being dependent on some future studies. It's critical that plans for the whole of the Lot – whether it's an 18-Hole course or a 9-Hole course or some other configuration - are considered all together by the DCA. This Application does not enable this to be done.

4 Currentness of plans being assessed.

- 4.1 Various plans and other documents have been provided to support this application, some of which are up to eight years old.
- 4.2 This proposed development has evolved significantly over the intervening period so it's important that current (best historical and trend, not one-off single year) data be used to inform decision-making about water availability, capture, storage and evaporation; sewerage availability and re-use; climate impacts now and projected; irrigation system design; building and public open area (including car-park) design; and energy capture, storage and use etc.

5 FCCR Vision for the Golf Course

- 5.1 The *NT Planning Act 1999* objectives include having developments that reflect the wishes and needs of the community; are sustainable; achieve responsible use of land and water resources to limit the adverse effects on ecological processes; maintain the health of the natural environment and ecological processes; and benefit the community.
- 5.2 These objectives are strongly supported by the FCCR and the applicant has built some of these objectives into its application – notably the intention to retain and enhance remnant native vegetation; plans to re-establish plant communities suitable for native animals; and responsible use of water.
- 5.3 FCCR also believes that broadening the types of activities that members of the community might engage in on the golf course would engender community support and increase economic viability. Such additional activities could also help make the golf course a 'good neighbour' of the Reserve. We have suggested below some opportunities for additional recreational and educational activities around the golf course which would be low-cost and complement the main purpose – golfing.

6 A unique golf course in harmony with the environment

- 6.1 The stated attractions of the new golf course include its bush setting, proximity to the Reserve, Lee Point and Buffalo Creek.
- 6.2 While clause 5.2.6 mentioned above lists some positive intentions, there are further opportunities to ensure the development not only incorporates natural features, but that it builds-in environmental sustainability features.
- 6.3 For example, lighting will be designed to have minimum external impacts towards the Lee Point foreshore areas so as not to affect turtle and other wildlife breeding on the foreshore (Clause 5.8.5 P17). However, there is concern that introduced flood-lighting to illuminate the driving range, increased night-time movement and human activity will have a detrimental effect on nocturnal birds and bats.
- 6.4 There is also potential problems with the extensive use of barbed wire on the perimeter fence line catching birds and bats and causing severe damage. Barbed wire should be used sparingly and must be 'banded' to reduce collision damage.
- 6.5 Clause 5.5.3 (6) P 14 states that all buildings will be designed to maximise passive climate control measures and the Pro-Shop and Golf Club buildings will be designed to meet a minimum 5-star Green Star rating. This also is welcomed.

- 6.6 It is therefore unfortunate that it appears that renewable energy facilities such as photovoltaics and batteries are not planned to be included in this development (Clause 5.8.6 -5.8.8 P17). More comments on this below.

7 Creating native plant and animal communities

- 7.1 There are some 280 species of trees and other plants between Rapid and Buffalo Creeks and 270 bird species (an incredible third of all recorded species in Australia).
- 7.2 The large range of local native plants which exist in proximity to this golf course provides ample opportunity to develop appropriate and attractive habitats linked to the Reserve and other less-disturbed neighbouring areas. Selections from these plants could thrive on-site without the need for extensive fertilizer or pesticide treatments; ongoing high rates of irrigation; or other costly or harmful maintenance. These plants already live here so are suited to our challenging climatic variations; plants from elsewhere in Australia may not 'fit' and are likely to struggle to survive and would require ongoing expensive support.
- 7.3 Including only some 19 local native plants in the list of proposed species is not good enough, and weed trees such as Poinciana are certainly not appropriate.
- 7.4 Looking at Appendix G the Site Master Plan – Landscape Concept Plan, FCCR notes that additional detail may be required such as defining a distinct boundary of the rainforest area in the three site plans (P1-3); plant photographs (P4-6 & 8) are of predominantly non-native flowering trees, shrubs and grasses; and of the thirty-nine plants listed for the clubhouse area (P7) thirty are non-native. There is also no survey of current vegetation densities or detailed landscaping plans showing what is to be planted outside the grassed golfing areas. Without this detail it is impossible to have the required number of plants sufficiently established to be planted or seed for direct seeding; a process that takes 6 to 18 months.
- 7.5 Some further comments on the suggested choices of plants: plants around the Clubhouse are predominantly non-native to the Darwin area so will likely struggle to survive in Darwin; the selection of trees (no shrubs listed) for the Golf Course area (open woodland) are predominantly local native species but nearly all prefer damp areas so would require lifelong irrigation to survive; planting of local native species is going to give a higher survival rate against increasing temperatures; and suitable shade trees are important and will increase in importance across the whole Lot.
- 7.6 It is suggested that references such as Brock J (2022) "*Native Plants of Northern Australia*" be used to help identify suitable Darwin-area plants and McKay L (2017) "*A guide to Wildlife and Protected Areas of the Top End*" be used to help decide on appropriate habitats for local native wildlife surrounding the fairways and greens.
- 7.7 The City of Darwin's paper on "*Establishing a Resilient Urban Forest for Darwin*" and its lists of '*Preferred Trees for Darwin*' and '*Trees Recommended Not to be Planted*' are all available on Council's website; again, local native plants are preferred over exotics or non-local natives.
- 7.8 Using other local knowledge of what types of plants to include, and when, where and how to plant them, should help create the natural plant (and then animal) communities intended in the project proposal. FCCR was therefore pleased to recently refer the applicant to local botanical experts who might assist their selection of appropriate and attractive local native plants as well as advise on how best to create plant communities on this site.

- 7.9 Additionally, careful and deliberate plantings around the dams and bunkers could encourage local birds and reptiles to visit and live in these sites – adding to the ecological webs and the enjoyment of golfers and the broader community. For example, typical golf course features such as earthen banks can be designed so that they also promote favourable nesting requirements for species such as Bee Eaters and Pardalotes.
- 7.10 So planting of numerous species of native Top End trees will both increase mammal, bird, reptile and insect species and numbers and provide welcome shade and cool in a climate change world. Certain species, for instance Native Figs (*Ficus virens*) are not only ideal shade trees for fairways, they also provide the food and habitat for all the creatures mentioned above – they can also withstand strong winds and have moderate water requirements.
- 7.11 Managing pests and weeds is an important part of protecting the golf course infrastructure ; it is also critical to protecting natural plant and animal communities... more on this below.
- 7.12 As mentioned above it is imperative that all stages of the development be considered as one entire proposal as this would help protect and enhance from the outset those already vegetated areas that will be retained (including along the south and south-east borders) and also enable planting of larger or slower growing species to start immediately along the planned natural corridors between fairways.

8 Weed & Pest Management

- 8.1 Gamba Grass burns at an extremely high temperature and its fires are destroying the natural food chains of the Top End. FCCR unreservedly supports the elimination of Gamba and other introduced grasses and applauds the proposed planting of native grasses, especially species favoured by the Gouldian Finch and the other ten Finch species seen on the site. It is a concern that the EMP (P8) states that: *Gamba restricts the emergence of native plants, alters waterways and increases the risk of intense wildfire Gamba is currently being actively controlled and will largely be removed as part of the project.* It would be preferred that Gamba is eradicated not just controlled.
- 8.2 It's important to note that removing Gamba Grass may leave considerable areas with no vegetation, which will impact fauna and so will need to be revegetated immediately. At this stage there does not appear to be a plan to do this.
- 8.3 Destructive feral animals such as Wild Pigs, Wild Dogs (not including Dingos) and Feral Cats have all been observed on and around the Golf Course site. To protect local wildlife and the newly created plant communities (as well as the fairways and greens) it is imperative that management plans for pest and weed monitoring / control / eradication are developed and implemented from the start of this project.
- 8.4 Cane Toads are often seen by the dams where they breed. They are responsible for the poisoning of tens of thousands of Top End reptiles and, without control systems in place, the increased irrigation necessary for the Golf Course is very likely to increase Toad numbers.
- 8.5 However, regular inspection of the dams on the site during Toad egg laying time followed-up by organised night-time 'Toad Busts' are likely to be successful in capturing the adults. These 'Busts' provide an opportunity for the local community to be introduced to the facilities of the Golf Course while learning about the environmental features of the course and our broader environment.

9 Ecosystem services

- 9.1 An ecosystem service is any benefit that wildlife or ecosystems can provide to people. One such service relevant to this site is the creation of shady cool places for golfers between the more exposed fairways; another could be the Ibis aerating the fairways and other grounds and it could include pest management using local birds, reptiles, native fish, insects and other animals. Local examples include the Rainbow Bee-eater and micro bats which feed on insects – including pests such as mosquitos.
- 9.2 Creating habitats favourable for the provision of ecosystem services will not only enhance natural values of the course they will reduce costs and increase player comfort and enjoyment.

10 Low carbon footprint and low/no chemical solution

- 10.1 Not generating electricity (from the proposed new buildings and the existing Resort and Caravan Park buildings) and storing this on site is a missed opportunity to reduce operational costs and environmental impacts across all three business entities (Golf Course, Resort and Caravan Park).
- 10.2 Such systems could significantly reduce reliance on mains electricity for all building air conditioning; residential units and offices' lighting and equipment; shops; kitchens – cooking and refrigeration; and irrigation pumps. It would also enable use of electric on-site vehicles including, cars, buggies and lawnmowers. This would reduce the need for, and the risks associated with, storing liquid fuels on site; reduce equipment noise; strengthen the 'green' credentials of the overall complex; as well as reduce costs long-term.
- 10.3 FCCR hopes that such systems become part of this project - retrofitting would be an expensive and complex task.
- 10.4 As mentioned above the careful choice of plants which would be less reliant on irrigation and provide the foundations of robust natural ecosystems would also be less reliant on fertilisers and physical and chemical solutions to weed and pest challenges.
- 10.5 The City of Darwin's "2030 Climate Emergency Strategy" may also provide pointers to other ways to reduce carbon emissions, conserve energy or create more climate-appropriate facilities.

11 Community Engagement

- 11.1 The proposal for this golf course includes an excerpt from the Darwin Regional Land Use Plan 2015¹, which encourages developers to co-locate recreation facilities with other community uses and provide facilities and services that meet the needs of local communities. Appealing to and engaging with the broader community was a key consideration in the recent redevelopment of a Victorian golf course; and it was likely to increase the viability of the facility².

¹ Proposed Application for Golf Course Development for Lot 9461, 20 Buffalo Creek Road and Portion of Lot 9289, 622 Lee Point Road, Lee Point, NT, Amendment A, page 8

² <https://www.whitehorse.vic.gov.au/about-council/major-projects-and-works/morack-golf-redevelopment/morack-golf-faqs-old>

- 11.2 This new golf course at Lee Point, with its retained and enhanced native vegetation is an opportunity to cater for a wide variety of interests and recreational pursuits in addition to the core market of golfers. The nearby Reserve is well known for its diverse wildlife such as the iconic Frill-Necked Lizard (Figure 1), some of which will inhabit the bush areas beside the facilities for golfers. The Reserve is a very popular destination for recreation and records over 1.4 million visits per annum. With the likely addition of more housing at Lee Point there will be more people looking for recreational opportunities nearby.



Figure 1: Frill-Necked Lizard on cypress; Photo courtesy Dr Gavin Bedford

- 11.3 Individuals, couples and families of all ages are attracted to places with high ecological values. Photographers, bird watchers, naturalists and bush walkers could all enjoy the health and well-being benefits of time spent near the golf course. If there is a perimeter firebreak around the course, and where safe, this could also be a shared path for bicyclists and (on leash) dog walking. Dog walking is allowed at some courses outside of the hours available for golfers.
- 11.4 Small-scale, low-key provision of facilities such as a bird hide and shaded seating would increase the duration of people's visits and their enjoyment of the place; likewise the planned temporary and permanent café options.

12 Opportunities for Community Education

- 12.1 Golfers and other visitors will be curious about local plants and wildlife. QR codes with links to interpretative information could be placed on short posts beside natural features on the course. This would be a simple way to educate visitors about the plants, insects, reptiles, birds and other animals that might be seen on a stroll around Dam 1, or Dam 2 or beside the rainforest in the corner of the Lot. For example, the famous Gouldian Finches have been sighted in the grasses around the dam and the plans for the course specify revegetation with grass species that this bird likes to eat.

- 12.2 Local schools could use the golf course as a destination for students to do citizen science projects such as identifying insects and learning how to use on-line tools such as iNaturalist. Elsewhere golf courses have incorporated features like native bee hotels and education for visitors about the hives. Special plantings of flowering native shrubs have increased the value of the area for local insect and bird species and the pollination of other beneficial plants. Encouraging bees and other insects are just some of many possible opportunities for enhancing use of the area by the community.³ The provision of nesting boxes away from areas where birds and bats are likely to be hit by golf balls may be another project that a local group or school could take on. This may offset the lack of mature trees that would otherwise be available to wildlife.
- 12.3 There are range of environmental, sporting, and educational entities that Morandini Investments could partner with to enhance the community's enjoyment of the area and its ecological values.

13 Amenities for the Community

- 13.1 Page 15 of the proposal for the golf course states that public toilets will be 'provided after stage 2 of the development', which could be three or more years after the course is first open. It would be in the interests of golfers, the broader community and staff to have access to toilets from an early stage in the development.
- 13.2 Many more hot days per annum are predicted for Darwin, so shade will be a significant factor in whether people choose to use the golf course. Shade from trees will cool walking surfaces and people, this indicates that wherever possible existing trees should be retained and, as already mentioned, planting new trees should be an early priority in the development of the whole site.

³ https://juniorlandcare.org.au/educator-hub/bee-resources/?fbclid=IwAR21j9VfAccOuPRBtZarjSu_DhRJym5gD4VKG8gva39ujV_a-HdexPCc82A

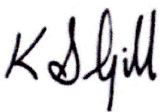
14 Conclusions

- 14.1 FCCR is very concerned that the DCA has been provided with details of about half the project with considerable uncertainty about whether there will be subsequent stages and no firm detail of what such stages might be if they do go ahead. In light of the importance, value and size of this Lot all proposed developments need to be considered as a whole, at one time; this application does not present this opportunity.
- 14.2 All the FCCR comments are made in response to only what's been provided to date and there are many unknowns.
- 14.3 Noting those qualifications, the current condition of the site - with significant degraded areas along with remnant mature vegetation - provides an opportunity to develop an 18-Hole golf course incorporating complex ecosystems of high ecological value, places that require minimal active management, that are largely self-sustaining, are attractive and increase player enjoyment.
- 14.4 Furthermore, integrated development of all three entities – the Golf Course, Caravan Park and Resort – should create opportunities to:
- ✓ optimize use of water and waste through plant selection, efficient capture and storage and use (both 'domestic' and irrigation);
 - ✓ minimize reliance on costly external energy sources (electrical and liquid fuel) through extensive photovoltaic generation coupled with on-site battery storage; and
 - ✓ be 'good neighbours' and minimize chemical and biological runoffs, pest and weed escapees, and light and noise pollution beyond the property boundaries through appropriate design and management.

FCCR has provided the above comments to help ensure that this golf course achieves its potential.

Please contact Andris Bergs on 0408 742 123 or avb1@bigpond.com if you need any further information and to let FCCR know when and where the DCA hearing will be held.

Yours sincerely



Karen Gibb (BAgSc(Hons), PhD)



Andris Bergs

On behalf of Friends of Casuarina Coastal Reserve Incorporated

27 October 2023