

Hoffmann Drilling Pty Ltd Superannuation Fund v Gold Coast City Council & Ors**Planning and Environment Court Appeal No 137 of 2020**

Joint Expert Report on **tourism issues** between Mr Tony Charters AM (TC), Principal of Tony Charters & Associates, acting for Hoffmann Drilling, and Prof Betty Weiler (BW), School of Business & Tourism, Southern Cross University and Member (ecotourism and visitor management expert) of the Gondwana Rainforests of Australia WHA Technical & Scientific Advisory Committee, acting for Co-Respondents – from a joint experts meeting held via email on 5 November, 8 November, 15 November, 10 December, 15 December and 16 December 2020.

Our Curricula vitae are provided at Appendix B.

STATEMENT TO COURT

We, the undersigned, hereby acknowledge that we have been instructed on an expert's duty to assist the Court and that, that duty overrides any obligation we may have to any party to the proceedings or to any person who is liable for our fees or expenses.

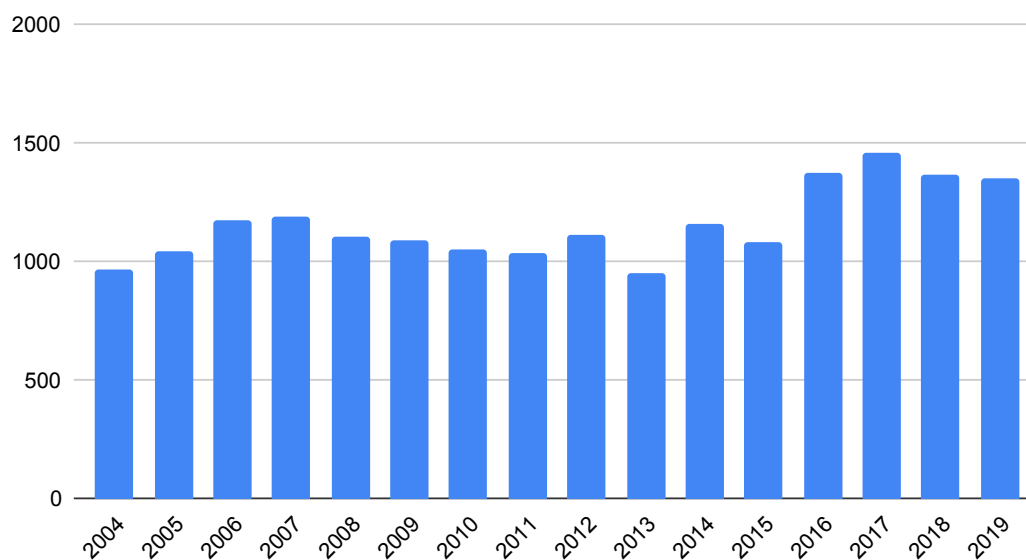
We furthermore state that no instructions were given or accepted to adopt or reject any particular opinion in preparing this report.

POINTS OF AGREEMENT

1. It is agreed that nature-based recreation/tourism is fundamental to Springbrook National Park (NP). With its World Heritage¹ status (as part of Gondwana Rainforests World Heritage Area) and its National Park status, Springbrook NP has a mandate to both protect heritage and natural resources and to provide opportunities for recreation and education. According to Queensland's Nature Conservation Act (1992), national parks are to be managed to ... (a) provide, to the greatest possible extent, for the permanent preservation of the area's natural condition and the protection of the area's cultural resources and values; (b) present the area's cultural and natural resources and their values; (c) ensure that the only use of the area is nature-based and ecologically sustainable; (d) provide opportunities for educational and recreational activities in a way consistent with the area's natural and cultural resources and values; and (e) provide opportunities for ecotourism in a way consistent with the area's natural and cultural resources and values.
2. It is agreed that overall Springbrook Plateau has had slow growth (using Average Annual Daily Traffic data as a proxy for growth) averaging approximately 2% a year as measured by traffic counts over the past 16 years and as indicated in the graph below :

¹ <https://whc.unesco.org/en/conventiontext/>

Annual Average Daily Traffic Numbers - Springbrook



(source: Main Roads Daily Traffic Open Data Portal data.qld.gov.au)

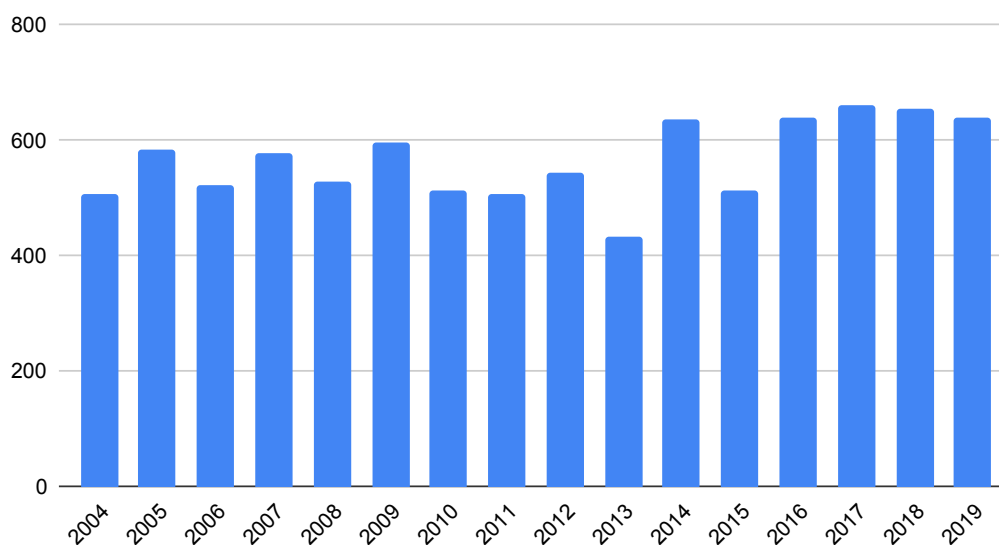
Extended periods of road closures due to flooding damage appears to be the reason for a decline in vehicle movements in 2013.

Since 2016 there has been a step up in average daily traffic numbers which may be partially explained by infrastructure repair and upgrades to National Park Recreation Areas and parking areas. Traffic count numbers have stabilised around 1350 – 1450 per day over the period 2016-2019. The counts for 2020 will be impacted by National Park closures associated with the State's COVID-19 response.

Another somewhat similar community in the Scenic Rim is Beechmont. The road south beyond Beechmont leads to the popular eco-lodge and camping ground of Binna Burra and the walking tracks and trails of the Binna Burra Section of the Lamington National Park.

Examination of the traffic counts of the southern part of Beechmont Road indicate a similar growth profile to Springbrook, after allowance for the major road closure in 2013 due to flood damage.

Annual Average Daily Traffic Numbers - Beechmont



(source: Main Roads Daily Traffic Open Data Portal data.qld.gov.au)

3. It is agreed that Springbrook is one of Queensland's most accessible (in terms of time and monetary cost to visit) national parks to both residents of Queensland and tourists visiting Queensland, and one of Australia's most accessible rainforest-based nature recreation experiences. Springbrook NP is located less than an hour's drive from Surfers Paradise in the heart of the Gold Coast (pop 556,000 – 2016 census). Springbrook NP is also less than an hour's drive from the southern Gold Coast and a 60 to 90 minute drive from most of the Northern Rivers area of NSW (pop 297,000 – 2016 census). Importantly, it is also a 1.5 hour drive from Brisbane (pop 2.28 million – 2016 census) making Springbrook NP an important nature-based destination as a potential daytrip for over 3 million local residents.
4. It is agreed that opportunities for rainforest recreation/tourist experiences in Australia are limited. Australia is the world's driest continent. 17% of Australia is forested; only 2.7% of Australia's forested areas is rainforest (half a percent of Australia). An estimated 24%² of Australia's rainforest (about 0.1% of Australia) is subtropical rainforest. Australia's rainforests are places of exceptional natural beauty and aesthetic importance. Both their rich biodiversity and their World Heritage Area status are strong drivers of tourism, ecotourism and associated economic benefits.³
5. It is agreed that, as both Brisbane and the Gold Coast have major international airports, the potential visitation from non-locals to Springbrook NP is also high. The Gold Coast is one of Australia's premier domestic and international tourist destinations. There were 4.2 million domestic visitors and a record 1.1 million international visitors to the Gold Coast in the year ending December 2019. The total number of stayover and day-trip visitors to the Gold Coast in

² Derived from Forests of Australia (2018) Department of Agriculture spatial dataset.

³ <https://www.agriculture.gov.au/abares/forestsaustralia/profiles/rainforest-2019>

2019 was 14.1 million.⁴ Tourism marketers, operators and others have for many years used the slogan “The Green Behind the Gold” to promote the hinterland to locals, domestic visitors (intrastate and interstate) and international visitors.

6. It is agreed that actual visitation to Springbrook NP is considerable, diverse and widely beneficial. There were an estimated 500,000 visits to the park in 2015⁵. A day trip in one’s own vehicle or in a hire car is the most common way of visiting Springbrook NP, but some do come by tourist or school bus. With no entry gate and no entry fee, it is impossible to accurately determine the numbers of independent travellers visiting in private vehicles, where they come from and how long they stay. (See points 17 and 21 for what visitors do when they visit including waterfall walks).
7. It is agreed that the majority of visitation to Springbrook is from free and independent travellers who make daytrips to Springbrook plateau for pleasure drives, walking, picnicking, pursuits such as bird watching and photography and relaxation. There are also small groups of cyclists who ride up the range (mostly very early in the morning) as a form of outdoor recreation and fitness training. A very low percentage of visitors stay overnight at a range of small accommodation establishments or the Settlement camping area within the National Park. Free and independent travellers (FIT) to Springbrook use both the Mudgerabah-Springbrook Rd and the Nerang Murwillumbah Rd to gain access to Springbrook. A percentage would undertake a round trip using both of the roads.
8. It is agreed that there is a substantial body of literature supporting the mental health and well-being benefits of time spent in nature, and some recent efforts to extrapolate and quantify the economic value of protected areas based on these benefits such as reducing the costs of mental health services. There are no specific data for Springbrook NP, however, it has been estimated that the aggregate cost of poor mental health in Australia currently amounts to approximately 10% of GDP and that, without opportunities to spend time in nature in protected areas, these costs would be 7.5% greater.⁶
9. It is agreed that three particular day walks in Springbrook National Park offer both waterfalls and scenic lookouts, and these three walks are rated by users of the AllTrails app⁷ as being in the top 10 waterfall walks in Australia: Warrie Loop, Twin Falls Circuit and Purling Brook Falls. Data obtained from pedestrian counters used by Springbrook NP management provides further evidence of the popularity of these walks. These counters are [TRAFx](#) brand, infrared pedestrian

⁴ <https://teq.queensland.com/research-and-insights/domestic-research/regional-summaries/gold-coast/gold-coast-regional-snapshot>

⁵ DNPRSR (Department of National Parks, Recreation, Sport and Racing). (2014). *Springbrook Park Guide*. Accessed December 16, 2013 at <http://www.nprsr.qld.gov.au/parks/springbrook/pdf/springbrook-park-guide.pdf>. Cited in Weaver, David (2015) Volunteer tourism and beyond: motivations and barriers to participation in protected area enhancement, *Journal of Sustainable Tourism*, 23:5, 683-705, DOI: 10.1080/09669582.2014.992901

⁶ Buckley, R. et al. (2019) Economic value of protected areas via visitor mental health. *Nature Communications* <https://doi.org/10.1038/s41467-019-12631-6>

⁷ <https://www.alltrails.com/australia/waterfall>

trail counters manufactured in Canada. The numbers reported here are based on counters placed on the tracks and have been adjusted for out-and-back counting (i.e. the numbers have been halved in cases where a visitor would be counted twice). They typically undercount visitor numbers due to periods of inoperation (moisture and wildlife interference); there were too many gaps in the data pre-2015 to include here. Data collected over the past 6 years indicates that the annual number of walkers from 2015-2020 averaged 104,000 on the Purling Brook track; 78,000 on the Twin Falls track; and 55,000 on the Best-of-All-Lookout track. Although these tracks get larger numbers on Saturdays and Sundays (about double the weekday numbers), the average daily use on each track is still quite high on most weekdays, ranging from a mean of 227 (Purling Brook), 206 (Best-of-All-Lookouts) and 121 (Twin Falls) walkers per day. Parking at the start of all of these walks already overflows on to the main access roads at peak times (See Figure 2a).

10. It is agreed that it is important to maintain the integrity of the nature-based experience at Springbrook NP and positive perceptions of that experience by visitors and prospective visitors. Social media is increasingly used by park managers (who have very limited resources to conduct visitor surveys) and in scholarly research and publications as a key data source, to capture visitor perceptions, satisfaction levels, and drivers of both satisfaction/dissatisfaction and travel decision-making.⁸ Google Reviews is an example of a widely-known social media outlet that relies on user-generated content (in this case, visitors posting reviews) which in turn are accessed and read by those who have an interest in a product or experience (in this case, visiting Springbrook NP and/or doing a specific walk in the park). A search on Springbrook National Park in Google Maps (see Appendix A) indicated over 2500 reviews by visitors to the Park (overall score on Google Reviews 4.7 out of 5), with the most common categories of comments being (in order) waterfalls, scenery and rainforest. A search specifically on Twin Falls indicated that negative visitor comments are most commonly associated with low water levels over the falls, followed by crowding. Positive visitor comments relate to water levels (many recommending to visit after it rains), how easy/accessible the walk is (e.g. for families) and the photo experience (behind the waterfall).
11. It is agreed that the Twin Falls walk is an important and in many ways an iconic experience. Access to the waterfall is via a one-hour drive from the Gold Coast, or a slightly longer drive from Brisbane or the Northern Rivers of NSW, plus a walk of approximately 30-45 minutes (one-way). Importantly, the walk offers an opportunity to walk on a formed track behind this spectacular waterfall (See Figure 1), providing a very special, almost unique, experience. Most other walk-behind-waterfall experiences are at great distance from sources markets (e.g. Dorrigo NP), are off-track or require higher levels of fitness and in some cases technical skill (e.g. Blue Mountains). This makes the Twin Falls walk very popular with a range of visitors including

⁸ Leung, Daniel, Law, Rob, van Hoof, Hubert & Buhalis, Dimitrios (2013). *Social Media in Tourism and Hospitality: A Literature Review*, *Journal of Travel & Tourism Marketing*, 30:1-2, 3-22, DOI: [10.1080/10548408.2013.750919](https://doi.org/10.1080/10548408.2013.750919);

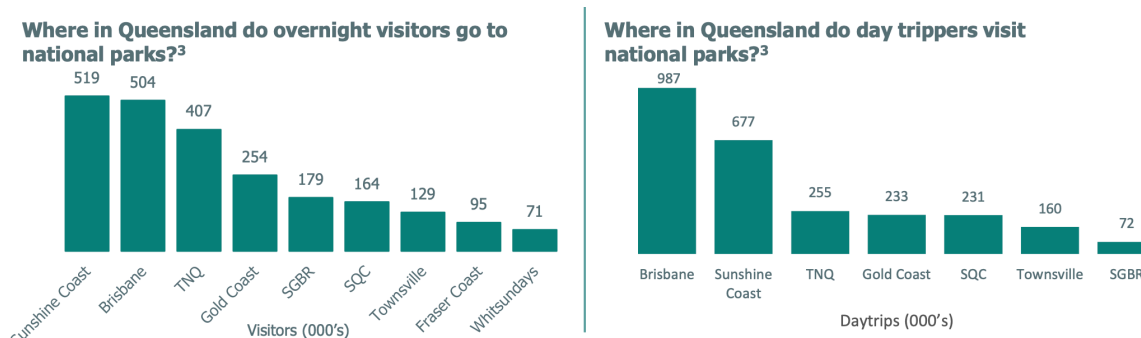
Lee, Minwoo; Lowry, Linda L; and Delconte, John D. (2015). Social Media in Tourism Research: A Literature Review. *Travel and Tourism Research Association: Advancing Tourism Research Globally*. 21. https://scholarworks.umass.edu/ttra/ttra2015/Academic_Papers_Visual/21

families and those who are not avid walkers or highly-skilled bushwalkers. Comments on Google Reviews support this (See Appendix A).

- It is agreed that there are many businesses in and outside of Springbrook NP who benefit economically from visits by independent visitors, school groups and special interest groups who visit Springbrook NP. Businesses who benefit directly include transport and tour operators, petrol stations, hospitality/restaurant businesses, retail, and accommodation providers.

POINTS OF DISAGREEMENT

- In reference to point 1, TC notes that sections of Springbrook National Park form part of the Queensland section Gondwana Rainforests World Heritage Area however not all of the Springbrook National Park is World Heritage listed. TC also notes that while the perception may be that the entire area is listed as World Heritage Area, for the most part the World Heritage boundary does not adjoin the access roads to Springbrook or a number of its attractions such as the Settlement Camping Ground and Day-use area. The property 263 Repeater Station Rd does not adjoin the World Heritage Area Boundary.
- In reference to point 2, BW notes that the traffic estimates in point 2 do not provide counts of actual visitor numbers nor the number or rate of growth of multi-passenger vehicles, which may be dissimilar between the two areas.
- In reference to point 3, TC notes that while Springbrook is an accessible rainforest-based nature recreation experience it is by no means the only accessible, or the most visited rainforest destination. The National Parks Minister Steven Miles MP was quoted in 2017 as saying that the visitation to Purling Brook Falls (the most popular site within Springbrook National Park) to be 160,000 annually. (<https://statements.qld.gov.au/statements/83219>). Other highly visited rainforest-based nature recreation experiences exist at the nearby Lamington National Park in the hinterland of the Gold Coast. Within the Brisbane area is D’Aguilar National Park with its extensive rainforest sections. The Sunshine Coast has numerous well known rainforest parks including: Conondale NP; Maleny NP; Bellthorpe NP; Kondalilla NP; Mapleton NP; Bellthorpe NP. The table below comes from 2018 research published by Tourism and Events Queensland, entitled *Tourist visitation to National Parks, snapshot of the year ending March 2018*.



Source: Tourism Research Australia, year ending March 2018

- Trend refers to the percentage change between the three years ending March 2018, compared to the three years ending March 2017.
- ALoS = Average length of stay (nights)
- SGBR = Southern Great Barrier Reef, SQC = Southern Queensland Country, TNQ = Tropical North Queensland



(Source: <https://teq.queensland.com/research-and-insights/economics-and-specialised-reports/national-state-parks-visitation>)

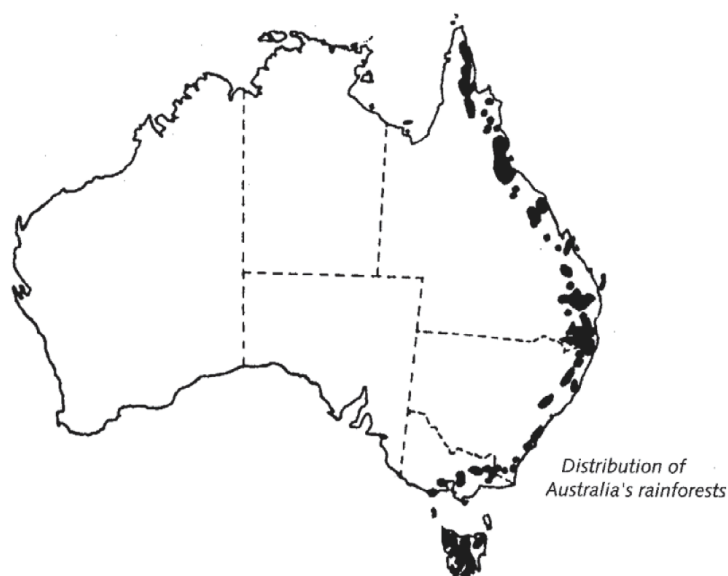
Similarly the drive to Springbrook is one of a wide range of scenic drives available to visitors from the Gold Coast, Logan, Redlands, Brisbane and far northern New South Wales that facilitate exploration of hinterland rainforests and villages. Looking specifically at visitors from the Gold Coast the following is a range of scenic forest routes within easy access:

- Beechmont, Binna Burra Section of Lamington National Park
- O'Reillys – Green Mountain NP
- Tamborine Mountain – Tamborine National Park including Witches Falls Section
- Border Ranges NP – NSW which includes Mt Warning, Uki, Murwillumbah area

16. In reference to point 4 and point 15, BW notes that opportunities for rainforest recreation/tourist experiences are for the most part a long way from Australia's major urban centres and its international airports. That said, BW agrees that there are indeed a variety of rainforest drives and walks on offer in the Gold Coast hinterland including the Binna Burra and O'Reilly's sections of Lamington and Green Mountain NPs, each approximately a 1.3 to 2-hour drive from Surfers or Brisbane. The Border Ranges are a little further from Brisbane and offer very limited opportunities for rainforest-based bushwalking on established tracks. One of the few walks that can be done as a long day-trip from these locations is the Mt Warning climb, but this is an experience very different to the walks at Springbrook NP. In any case, Mt Warning was closed to walkers on 30 March 2020 and has been closed several times in the past decade, including at least once for 10 months. Its status as a walking track will be reviewed in May 2021 but according to NPWS it may remain permanently closed to summit-walkers for both safety and cultural reasons (Personal Communication with NPWS Regional Office).

17. In reference to point 4 and point 16, TC does not dispute the statistics related to the areas of rainforest in Australia and the specific area of sub-tropical rainforest or the rating of their aesthetic beauty. However TC does reject the notion that rainforest is a long way from Australia's major urban centres and its international airports. The map below indicates rainforest areas of Australia:

Cool-temperate, Warm-temperate, Subtropical, tropical and Dry Rainforest.



The Australian National Botanic Gardens
Inspire, inform and connect people to the Australian flora

2.

ANBC – brochure Rainforest – surviving the wet and dark, 2012;

https://parksaustralia.gov.au/botanic-gardens/pub/rainforest_surviving-teachers-2012.pdf

All east coast Capital cities plus a large number of regional cities are within close proximity of rainforest. There are seven international airports servicing these areas on the east coast.

18. In regard to point 5, TC accepts the statistics but believes that there is no likelihood that the impacts of the proposed water harvesting at 263 Repeater Station Rd would jeopardise the standing of the hinterland as “The Green Behind the Gold”.
19. BW notes that, according to QPWS regional office data⁹, there are a total of 34 tour operators with permits of varying capacities to visit Springbrook NP for day-time guided walks and another 3 operators with agreements to conduct night-time glow-worm tours to Natural Bridge. According to the Ranger-in-Charge at Springbrook NP, not all operators submit their required return of operations, but of those that did, the numbers reported on day tours over the past 4 years ranged from 4197 to 9064 annually, and the numbers reported on glow-worm tours was consistently between 64,000 and 68,000. There are also at least 20 school groups a year (many do not notify the park of their intention to visit).
20. TC notes that the number of commercial tour operators that hold commercial activity permits (CAP) is not necessarily a good indicator of the level of touring activity. An operator may apply for a CAP and yet not operate (for a range of reasons including lack of demand, or very intermittently offered tours). Additionally permits are required for a wide range of activities:

⁹Ranger-in-Charge, Springbrook National Park, Southeast Queensland Region, Department of Environment & Science (QPWS)

The Queensland Parks and Wildlife Service (QPWS) uses the following criteria to assess whether you need a permit. You will need a CAP if the:

- *primary purpose of the activity is to make a profit*
- *activity, tour, course or transport is provided free of charge, but in conjunction with another commercial product or service*
- *service is being provided by someone who is being compensated or paid a fee (e.g. a tour guide or group leader)*
- *activity is ongoing or regular*
- *entry or participation fee is being collected over and above those costs associated with conducting the activity*
- *activity is open to the general public as well as a specific membership group.*

Examples of activities requiring a CAP include:

- *guided tours*
- *events*
- *[filming and photography](#)*
- *canoeing, rafting or kayaking*
- *fundraising and charitable events*
- *hang-gliding or paragliding*
- *scenic flights*
- *vending (e.g. mobile food vending)*
- *scuba diving*
- *motorised activities.*

(Source: <https://www.business.qld.gov.au/industries/hospitality-tourism-sport/tourism/starting-up/regulations/parks-recreation-forests/commercial-activity-permit/requirements>)

A check across the internet of current daytrip and daywalk operators indicates a small group of some seven operators:

- Scenic Day Tour Group
- World Heritage Springbrook NP Tour incl Natural Bridge
- Queensland Day Tours
- Sunrover Tours
- Brisbane Day Tours
- Bushwacker Tours
- Walk Into Luxury

CAP holders are required to send in regular returns on the numbers/activities undertaken and failure to do may result in infringement.

Half and Full-day Tour operations to Springbrook from the Gold Coast and Brisbane are conducted using principally minivans of up to 15 seats and 'Coaster' style buses of 24 seats.

The tours range in price from around \$90 for an adult for a half-day tour to \$170 for a full-day tour for an adult. Tours typically include Natural Arch as well as Springbrook Lookouts and

shorter walks. Tours are operated 6-7 days per week, however minimum numbers apply to some tours.

Based on the figures quoted by BW for commercial daytours to Springbrook over the past 4 year (from 4197 to 9064 guests annually) – this equates to an average of 11.5 to 24.8 guests per day – which equates to an average of one full minibus per day at 100% occupancy or 2 per day at 50% occupancy. This is a very low level of commercial tour vehicle use.

It should also be noted that the commercial operations centred on Glow Worm tours is an evening activity involving a mix of vehicles ranging from very large coaches (eg 57 pax) to minibuses. The vast majority of these tours do not travel to Springbrook, rather they travel the Nerang-Murwillumbah Road along the Numinbah Valley.

TC contends that the harvesting and transport of water as proposed by Hoffmann Drilling Pty Ltd would not adversely impact on the operations of commercial tour operators due to the extremely low number of water tanker movements on the access roads to Springbrook and to the Best of All Lookout (up to 4 loads transported from Springbrook each week day and one on Saturday morning). Tour operators travelling to and from Springbrook encounter a range of vehicles on any given trip, be they school buses, private vehicles, farm equipment, delivery trucks, other tour operator's vehicles, bulk produce handling trucks (eg milk, cattle), and building product deliveries (timber, roofing steel, bricks etc). The very limited number of daily water tanker truck movements proposed and the fact that commercial tour bus drivers and the water tanker drivers are professional drivers results in a very low potential for negative impacts from a safety perspective.

21. BW notes that people visit rainforests to view nature, to walk or relax in nature, and to view and photograph scenic outlooks and waterfalls. Based on one recent (2017) visitor study, the most popular activities at Springbrook NP are short bushwalks (64%), visiting waterfalls (37%), visiting lookouts (36%) and scenic driving (32%).¹⁰
22. BW considers that additional truck movements would mean that at any given time on every weekday there will be at least one water truck moving slowly somewhere on Pine Creek Road, Springbrook Road, or Repeater Station Road. These roads are not technically part of the park but they are most certainly part of the visitor's experience when visiting Springbrook NP. The lack of separation between the drive and the destination is further illustrated by the fact that several areas in Springbrook NP feature on Destination Gold Coast's website when using the search term "scenic drives"¹¹. We also know from the visitor study referred to in point 17 that respondents identified 'scenic drive' as one of the top activities they did while visiting the park. The increase in truck movements associated with the proposed development project would mean every visitor has a high likelihood of meeting or being forced to follow behind one of these trucks. It is likely that encountering a water truck while driving will negatively impact visitors' perceptions of safety and crowding on this scenic drive and potentially their satisfaction with the experience. This has the potential to negatively impact repeat visitation, word-of-mouth advertising and the visitor economy that depends on visits to Springbrook NP.

¹⁰ *Springbrook National Park Visitor Management Report*, May 2017.

¹¹ <https://www.destinationgoldcoast.com/things-to-do/scenic-drives-and-walks>

23. TC disagrees with this assessment. Based on the work of Andrew Douglas for the Appellant, the chances of encountering a water truck on a trip to or from Springbrook is minimal. Beyond that, some perspective needs to be placed on such encounters when they do arise. The community of Springbrook, like any other community of some 650 people, that requires building materials, energy services, roads, shop supplies and goods to service recreationalists and tourists, there are frequent deliveries of goods to the mountain. Building materials, earthmoving equipment, road building equipment, bus transport, bulk deliveries for retail businesses, furniture deliveries and many other things requiring transport by truck. There is also frequent transport of produce and materials off the mountain by truck – produce, cattle transport, waste etc. Additionally there are tour buses, motorhomes, cars and caravans – all large vehicles associated with the tourism use of the Mountain. Based on the 2019 traffic census undertaken by the Department of Transport and Main Roads the Annual Average Daily Traffic total for the Gold Coast Springbrook Rd (recorded 1.57km south of the Gold Coast Springbrook Rd and thus capturing traffic using both the Mudgerabah- Springbrook Rd and the Nerang-Murwillumbah Rd) is 1353/day. Of this 8.77% is heavy vehicle movements (an average of 118 heavy vehicle movements a day). Taking the average daily heavy vehicle movements created by the operation at 263 Repeater Station Rd of 6/day over 7 days (a maximum), this represents an increase of a maximum of just 5% in the average daily movements of heavy vehicles on the road (https://www.data.qld.gov.au/dataset/traffic-census-for-the-queensland-state-declared-road-network/resource/dc82ec39-4513-437c-8d07-ecb08474a065?truncate=30&inner_span=True) It is not evident to TC how the additional movement of water proposed makes a material difference to the pleasure driving experience of visitors given the already significant usage of the road by heavy vehicles conducting day to day business to and from Springbrook. Ninety-five per cent of heavy vehicles encountered by tourists will be heavy vehicles other than water trucks traversing to and from 263 Repeater Station Rd.
24. TC further notes that, in the event that a free and independent traveller (FIT) vehicle traversing up the mountain encounters a water tanker ascending the mountain, the visual impact is little different from approaching any other larger vehicle, be that a delivery van, tipper truck, readymix truck, caravan or motorhome. In terms of the likelihood of visitors in private vehicles being held up behind tanker trucks ascending the mountain, it should be noted that on ascension the vehicles are empty and have the capacity to maintain a speed comparable to passenger vehicles (also noting that the road is windy and demands lower speeds). In the case of descending the mountain, the water tankers in TC's observation maintain a speed compatible with the normal descent speed of a car. For FIT visitors the road is mostly regarded as part of a pleasure drive where speed is not the major consideration, but rather the surroundings and ambience of the forest drive.
25. TC notes that walking on the tracks of Springbrook National Park is the dominant form of recreation in the Park and that the more traditional use of picnic facilities has diminished. Parking at Purling Brook, Best of All Lookout, The Canyon, Twin Falls is a serious problem and will require a management response – be that through additional parking areas; a shuttle bus or other people movement system or a combination of these; a user charge or a permit system; or other management approach that manages the problem. There are issues of carrying capacity

limits being approached or exceeded that require management attention. The overcrowded parking area situation raises issues of public safety as vehicles park on both sides of country roads in the vicinity of the trail and track heads. It should be pointed out that none of these congested parking areas are enroute to 263 Repeater Station Rd. The parking of cars along the unsealed road edges also raises questions of the impact on tree roots through compaction. Additionally, there are potentially issues of unsustainable levels of track/trail use given their surface treatment and the potential impact on tree roots, erosion etc.

26. TC notes that the most popular time for National Park visitation in Queensland and Far Northern New South Wales is in winter – for reasons of milder temperatures and finer weather. Sundays are the most popular days to visit National Parks, followed by Saturdays and weekdays are generally significantly lower (with the exception of public holidays). The days of lowest Park usage align with the proposed days of transporting water from 263 Repeater Station Rd. TC also notes that the most popular season for walking is the period when water flow is often minimal compared to the wet season of after periods of unseasonal rain. The area has values that extend far beyond just the waterfalls – the dramatic cliff faces, the diversity of vegetation types (not only rainforest), the high-altitude climate, village atmosphere, rural farm setting, wildflowers, birdlife, small mammals such as pademelons, bandicoots, possums etc, reptiles, insects, amphibians and all other lifeforms. The presence or absence of high levels of flow at the many Springbrook waterfalls does not appear to deter visitation levels as the area has such a wealth of high value natural and cultural heritage attractions. This point is underlined by the many postings in alltrails.com that refer to lack of water in the waterfalls yet are still highly complimentary about the experience and provide very high ratings for the walks. Visitors routinely acknowledge changing conditions in nature and amend their expectations to align with such change. For example wild flowering times, seasonal wildlife migrations, weather conditions, cyclone damage, wildfire impacts.
27. BW considers that, if water volume flowing over Twin Falls were to be negatively impacted (reduced), for whatever reason including water extraction, cumulative impacts and/or climate change, it is highly likely that there would be a decline in the quality of the visitor experience, visitor satisfaction, and visitor word-of-mouth advertising for visitors. Visitors may do the walk to Twin Falls anyway (and be disappointed). Or visitors looking for a spectacular waterfall experience on a formed walking track may decide to walk to Purling Brook Falls in place of Twin Falls. This would put additional strain on parking and other infrastructure at this site and further compromise a site that already gets an excess of visitors at peak times (See Figure 2b). At busy times, this would likely negatively impact on the quality of and satisfaction with the visitor experience at Springbrook NP.
28. TC does not have expertise in hydrology and relies upon the opinions of the Appellant's expert in Groundwater (Dr Trevor Johnson) who states in Para 22e of the Joint Expert Report on Groundwater Issues: 'there will be no adverse impact on the aquifer or systems which rely upon that aquifer'. However, TC notes that visitor feedback on tracks featuring waterfalls at Springbrook remains very positive at times of the year when waterfall flow is very low. This aligns with TC's experience of nature-based tourism management that underlines the fact that visitors are undertaking Springbrook National Park visits for a multitude of reasons – they mostly do not have a singular focus on waterfalls. Bushwalking, birdwatching, geotourism, plant

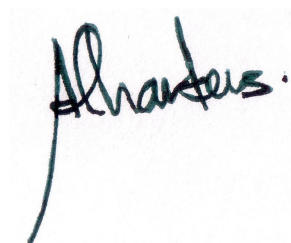
identification, wildlife and many other factors contribute to the experience – even in dry periods. It is beyond practical comprehension that any low-level reduction in flow at Twin Falls would result in a significant transfer of visitation to Purling Brook Falls as there are no fewer than eight other waterfalls on the Twin Falls Circuit, Warrie Circuit and Goomoolahra Falls track all in the Canyon-Springbrook Section of the National Park. The parking situation at both Purling Brook and Tallanbana trailheads is an existing major management issue for the QPWS and will ultimately require a response beyond purely expanding the carparks at both locations.

29. BW considers that a reduction in water levels over Twin Falls for whatever reason including water extraction, cumulative impacts and/or climate change could also lead to a decline in visitor satisfaction and visitor numbers to Springbrook NP generally. This in turn has the potential to impact the mental health benefits that the park offers, and in turn the costs of mental health services.
30. TC does not agree with this assessment. Many National Parks and protected areas undergo change over time through impacts such as overtourism, poor impact management practices of park managers, impacts of natural or human influenced events such as cyclone damage, fire damage, selective logging or damage caused by improper 4WD usage. Dr David Pitts in 1983 identified the occurrence of Opportunity Shift in his PhD research into the Recreation Opportunity Spectrum. The concept of opportunity shift can be best explained through the example of recreationalists who, having regularly visited a particular protected area, years later, based on reports of overuse or other damage to a site say something like “I used to love going to ‘X site’ but I’m never going back – it would ruin all the great memories I have of “X”. Yet for the person who discovers ‘X-site’ for the first time the site holds great beauty – this describes Opportunity Shift in its most straight forward form. The likelihood is that if indeed the that a reduction in water levels over Twin Falls for whatever reason including water extraction, cumulative impacts and/or climate change resulted, a decline in the quality of visitor satisfaction would not decline. (Pitts , D. (1983) Opportunity shift : Development and application of recreation opportunity spectrum concepts in park management , unpublished PhD thesis Griffith Uni)
31. TC notes that there is negligible evidence to suggest that the proposal to harvest water from 263 Repeater Station Rd would have any measurable impact on those who benefit, directly and indirectly from visitation to Springbrook. Springbrook has a diversity of National Park walks, across the catchment areas of numerous creek systems, some eleven sets of waterfalls, a rich cultural history, a diversity of forest types, outstanding views and lookouts, an abundance of wildlife and a quaint village with interesting shops, stalls and cafes. Taking into account the assessments of the Appellant’s experts in Visual Amenity Nathan Powell, and the Groundwater Issues Dr Trevor Johnson, in the view of TC the positive and desirable values of Springbrook in terms of visitor appeal far exceed any negative perceptions created through the additional heavy vehicle traffic on the road or the harvesting of water as proposed at 263 Repeater Station Rd.
32. TC believes there is nothing about the proposal to harvest water at 263 Repeater Station Rd that would impact on the ability to spend time in nature. Firstly, the very limited number of daily tanker movements represent a tiny proportion of total traffic daily traffic movements to Springbrook and would represent virtually no impediment to travel to or from Springbrook. Secondly, the overall values of Springbrook as a recreation/tourism destination would not be

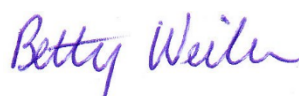
impacted in any discernible way. Without commenting on the specific ecological impacts of the proposed water harvesting, which others are qualified to do, it is clear that even in the case of minor impacts on water flow of waterfalls within the catchment or that there was some minor impact on vegetation in the vicinity of the bores and aquifer these impacts are highly unlikely to have a negative impact on the overall appeal of Springbrook for visitors.

33. TC considers that tourism destinations such as Springbrook are strengthened by the presence of a vibrant community that provides a diverse range of employment for its residents. Communities that that a diversity of industry can better sustain peaks and troughs in one or more of its industry sectors. The tourism industry in particular is prone to severe peaks and troughs due to a range of factors such as severe weather impacts, fire, and restricted travel movements, as amply demonstrated by the recent COVID-19 related closures. The proposed water harvesting can provide local employment and will both directly and indirectly and will therefore contribute in a small way to the viability of the Springbrook community.
34. TC also considers from a tourism perspective the linkage of local produce with a destination is a positive thing and contributes to both the positive marketing of the destination and the desirability of the destination. In can also contribute to lower carbon footprints – through the consumption of produce close to the source of production. In the case of spring water, the example international waters such as Perrier, Icelandic Pure Spring Water, Vittel, Evian and many other waters shipped across the planet to Australia. The potential for the production of Springbrook Springwater would contribute both to the perception of Springbrook as a clean and green destination and as a provider of a low carbon alternative to overseas imported springwaters. Destinations such as Hepburn Springs in Victoria have long traded on the perceived health qualities of their bottled natural spring waters and have integrated use of their spring waters into a high value destination focussed on wellness tourism, organics and cuisine.

Signatures



Tony Charters AM



Betty Weiler, PhD

Professor of Tourism

Southern Cross University

Tony Charters and Associates

Date 16 December 2020



Figure 1. Walk behind Twin Falls (December 2019)



Figure 2a. Tallanbana parking (trailhead for Twin Falls Circuit), 24 May 2020



Figure 2b. Gwongorella parking (trailhead for Purling Brook Falls), 12 July 2020

Figures sourced from Springbrook Mountain Community Facebook site and BW's personal photos

Appendix A: Google Maps search using the term “Springbrook National Park” and “Twin Falls”

A search on Springbrook National Park in Google Maps on 8 November 2020 indicated over 2500 reviews of the Park (overall score on Google Reviews 4.7 out of 5), with the most common categories of comments being (in order) waterfalls, scenery and rainforest.

A search specifically on Twin Falls produced 557 comments. Comments were sorted from most positive to least positive and then vice-versa to determine drivers of satisfaction and dissatisfaction.

Negative visitor comments are most commonly associated with low water levels over the falls, followed by crowding. Positive visitor comments relate to water levels (many recommending to visit after it rains), how easy/accessible the walk is (e.g. for families) and the photo experience (behind the waterfall).

Comments in relation to the Twin Falls circuit in particular support the claim that this is a high-quality experience accessible to a range of visitors of varying ages and levels of fitness:

- Beautiful spot for a swim! The Twin Falls circuit is my go-to recommendation for an easy rainforest walk with waterfalls, not too far from Brisbane or the Gold Coast (Brendan Keane)
- One of the best walks on the Gold Coast (Jak Carroll)
- The approx 2 hours Twin Falls Circuit has to be one of the best short walking tracks in the world! Trust me, I am from New Zealand, I know what nice tracks are!! (Dave Holland)
- Would highly recommend this as one of South East QLD’s most interesting nature walks. Very easy to access and quite a short walk from the car park for those not quite so exercise inclined. ... Walking around the back of the waterfall is certainly the highlight. Well worth the drive out there! (Chris Macer)
- I cannot love this enough. Of the 100s of places I've been to around Australia this is definitely top 5. Something new to see around every corner. (Pat F)
- Walks under and around a number of falls, picturesque forestry, one of the best day walks in the world (Cui)

Appendix B

Curriculum Vitae – Tony Charters AM



tony@tonycharters.com

Founder, Management Solutions (Qld) Pty Ltd ACN: 73 072 601 560, Trading as:

Tony Charters and Associates

PO Box 4261 St Lucia South 4067, Brisbane, Australia mb +61 418 122025

Education

Bachelor of Science (Environmental Studies), Griffith University

Majors: land use planning, economics, government

Master of Urban and Regional Planning, University of Queensland

Majors: protected area planning, planning law, strategic planning and government Thesis topic: Planning for people and nature in protected areas.

AWARDS

Member of the Order of Australia (AM) for services to ecotourism, environmental education and recreation programs, awarded by the Governor-General of Australia in the Queen's Birthday Awards, 2014

University of Queensland Award - C V H Harding Prize best research thesis of the faculty, 1987

Tony Charters AM Medal, Inaugural Awardee, from Ecotourism Australia for sustained and significant contributions to ecotourism in Australia, 2016

Life Membership - awarded by Ecotourism Australia 2016

Career background

Principal – Tony Charters and Associates – 2004- to present

- Destination planning and management
- Tourism business operations and management
- Tourism business feasibility assessment
- Tourism research, strategic planning and development
- Tourism policy and business planning
- Fundraising and philanthropy
- Project management
- Conference convening and event management

Executive Director – Policy, Planning and Development, Tourism Queensland - 1999-2004

- Aviation, Cruise shipping, Drive tourism
- Destination management planning
- RTO partnerships and funding
- Queensland Ecotourism Plan
- Tourism investment facilitation
- Tourism policy and research
- Whole-of-Government initiative
- Tourism quality, training and capacity building

Manager – Environmental Tourism Department, Tourism Queensland - 1997-1999

- Queensland Ecotourism Plan
- Industry research, development of Queensland Tourism Strategy and business facilitation

Managing Director, Ecotourism Management Australia - 1996-1997

- Consultancy to industry and government feasibility assessment, business operations, marketing

Director, Environmental Management, Queensland Tourism Industries Limited - 1991-1996

- Development and management of Ranger-guided Tours & Whalewatch
- Environmental planning Kingfisher Bay Resort and Village
- Media management
- Government liaison and advocacy, Native Title negotiations

Acting Executive Director, Wet Tropics Management Authority - 1990-1991

- Establish new Authority and operating systems
- Development of Inter-governmental agreement and management policies
- Develop and manage \$62m capital and operational budget.
- Development of strategic partnerships
- Prepare Ministerial Council briefings

Manager (Recreation) Dept of Environment and Heritage - 1988-1990

- Establish state-wide park system under the RAM Act
- Develop commercial tourism activities on parks
- Manage legislation and amendments; State-wide management planning, tourism, recreation, interpretation and public affairs program

Director, Brisbane Forest Park Administration Authority - 1986-1988

- Resource management, recreation, tourism, planning and research, communication
- Develop commercial tourism operations (Walkabout Creek Freshwater Study Centre, Bushranger Tours, Aviary, Aquarium).
- Prepare Treasury submissions and manage and monitor budget (\$6.1m)
- Brief Minister and Chairman of the Advisory Planning Board

Senior Interpretive Officer, Brisbane Forest Park Administration Authority - 1982- 1986

- Recreation planning and development
 - Public relations and media management
 - Tourism commercial operations management
 - Volunteer group development and management
 - Grant submission preparation

Information Officer, Department of Forestry – 1980-1982

- Recreation publications
- Media management
- Editing Departmental publications
- Commonwealth Games Brisbane – Media Manager on secondment for the Brisbane Commonwealth Games

Research Officer, Dept of Administrative Services 1979-80

- Media management and speech writing
- Research on Environment and Heritage Standing Committee business

Tourism operational experience

- Kingfisher Bay Resort Ranger Guides Tours and Whale Watch **1991-1996**
- Owner and Operator “Woody’s on the Coast Restaurant Bar and Café” Gold Coast

Surfing Culture Themed Restaurant **1999-2001**

- Management Solutions (Qld) Pty Ltd event management – **1997- present**

Key Recent Clients

- National Geographic Unique Lodges of the World - **2014 -2020**
- US Aid – Philippines Ecotourism Marketing and Investment Strategy, Mindanao Ecotourism Strategy **2016-17**
- World Bank – Sri Lanka Strategic Tourism Action Plan - **2016**
- Sekisui House, Yaroomba development **2017 - to present**
- Al Ula Royal Commission, Saudi Arabia, Tourism Management Plan RFP – **2018\UN -**
FAO – Senior Ecotourism Expert, Ecotourism Masterplanning for National Parks, Saudi Arabia - **2018 - ongoing**
- Spicers Group (Turner Family), Scenic Rim Trail **2012- 2019**
- Rockfield Eco Lodge – **2015 - 2018**
- Australian National Maritime Museum – **2010-2015**
- Queensland Government, Convenor, Destination Q – **2012-2014**
- Victorian Tourism Industry Council – **2011-2013**
- Ecotourism Australia – **2009 – ongoing**
- Philippines Department of Tourism – **2012-2017**
- Campervan and Motorhome Club of Australia – **2005- ongoing**
- Great Barrier Reef Marine Park Authority – **2005-ongoing**
- Indigenous Business Australia - **2010-2014**

Property management and development

- Prime CBD commercial site acquisition and development, Nerang St Southport Gold Coast **1999-2001**
- Subdivision of residential land Killarney, south-east Queensland **2006-2010**
- Kingfisher Bay Resort Villas **1996-2007**
- Developer “Woody’s on the Coast Restaurant Bar and Café” Gold Coast **1999-2001**
- Gold Coast commercially zoned properties, **2006- 2015**
- Flying Fish Point near Cairns, Queensland, **2006-present**
- The Head, future Eco-lodge site and working cattle property **2008-present**

Industry development

- Foundation Board member, Ecotourism Australia – **1991-2016**
- Chair, National Eco Certification Program Committee - **1994-1996, 2002-2008**
- Conception and drafting of Cairns Charter on Partnerships for Ecotourism - **2002**
- Development of third generation of Eco Certification and National Independent Audit Program Panel - **2003**
- Development of UNESCO/Ecotourism Australia World Heritage Tourism Program and Memorandum of Co-operation - **2003**
- Member national working group on tourism accreditation - **2003-2004, 2007-2009**
- Planning team member of Destination Management Planning, TQ - **2002-2004**
- Design and development of Climate Action Certification scheme - **2008**
- Member Reference Committee, National Landscapes Program - **2006-2009**

Board memberships

Current Board Member positions

GBRMPA, Tourism Reef Advisory Committee – **2007- ongoing**

Foundation Deputy Chair, Global Ecotourism Network **2015-** ongoing

Foundation Director, Asian Ecotourism Network – **2014-**ongoing

Previous Board appointments

Founding Director, Ecotourism Australia **1991-2016**

Director and Executive Member, The Int'l Ecotourism Society Board **2012 - 2015** Cairns Charter on Partnerships for Ecotourism International Steering Committee – **2002- 2012**

National Landscapes Reference Committee - **2007-2010**

Eco Certification Program Management National Committee - **2002-2009**

The International Ecotourism Society (Vice-Chair) - **2006-2009**

Tourism Accreditation Australia Ltd - **2005-2008**

The International Ecotourism Society - **2000-2006**

Tourism Tropical North Queensland, Cairns - **2003-2004**

Great Barrier Reef Consultative Committee - **2001-2004**

Wet Tropics Management Authority - **1997-2003**

Brisbane Forest Park Planning Advisory Board - **2001-2004** Secretary, Ecotourism Australia - **2002-2004**

Fraser Island World Heritage Area Mgmt Committee - **2000-2004**

Chair, Tourism Industry Liaison Group, Wet Tropics - **1997-2003**

Coastal Protection Advisory Council - **1997-2002**

President, Ecotourism Australia - **1994-1997**

Treasurer, Ecotourism Australia - **1991-1994**

International Tourism Awards and Quality

Judging panel

World Legacy Awards (Conservation International , ITB, National Geographic) - **2003-2004, 2014 - 2017**

Finalists Selection Panel

Tourism for Tomorrow Awards, WTTC - **2004-2019**

Assessor -National Geographic *Unique Lodges of the World*– **2014 - 2020**

Conferences convened

International Conferences

Ecotourism Association of Australia, Cairns **2002**

Global Eco Asia Pacific Tourism (Annual) Conference **2009-ongoing**

National Conferences

Parks and Protected Areas Management Congress **2006**

Ecotourism Association of Australia **1995-1996, 1998-2002**

Tourism Futures **2002-2010**

Tourism and Events Excellence **2011-2013**

DestinationQ Forum **2012-2014**

Sustainable Economic Growth for Regional Australia - **2007**

Best Practice Ecotourism - **1996**

Private Sector Involvement in Park and Protected Area Management - **1994**

Books

“Green Growth and Travelism”, Geoffrey Lipman et al Goodfellow Publishers Ltd, Oxford - **2012**
Saxon, E and Charters, T (2008) “Environment and Ecotourism in Sustainable Queensland” Vol. 3 (Information Paper 90), CEDA - **2008**

“Tourism in Parks”, Buckley R, International Centre - **2004** for Ecotourism Research, Griffith University

“Ecotourism Best Practice” - **2000**

Charters.A, & Law.K, Tourism Queensland

“National Parks – private sector’s role” - **1996** Charters.A, Gabriel.M, Prasser.S, USQ Press

“Towards Planning for Sustainable Development” - **1995** Kozlowski.J, & Hill.G, Avebury

“Sustainable Tourism – an Australian perspective” Harris.R, Butterworth-Heinemann - **1995**

Tourforce – Global Industry Newsletter

Editor and publisher of Tourforce – a highly respected monthly newsletter circulated to 10,000 tourism industry and heritage management professionals worldwide - **2006-ongoing**

Social media network

LinkedIn

Network of **3,500** global tourism professionals, travel writers and sustainability

experts.

Facebook

Network of **1500+** friends (industry colleagues) used primarily for business content. Consists of leading international travel writers, bloggers, sustainability experts and operators.



Professor Betty Weiler

BA (Rec Admin)

Master of Arts (Regional Planning and Resource Development)

PhD (Tourism / Geography)

betty.weiler@scu.edu.au (m) +61 414 745 128

BIO

Betty Weiler has been a Professor of Tourism since 2003 (currently with Southern Cross University, formerly with Monash University). She has over 30 years of full-time experience as a tourism scholar, researcher and consultant. Betty's research, consultancy work and writing centres on the tourist experience and visitor management, and she is known for her applied research undertaken in collaboration with protected areas, zoos and heritage attractions. Betty has authored or co-authored 110 journal articles plus another 60 peer-reviewed book chapters and conference papers. Betty has been the recipient or co-recipient of over \$3 million in external research grants as well as completing many large funded tourism research and consultancy projects within Australia and internationally. Recent examples include:

- national sustainable tourism policy – technical advisor and co-author (Vanuatu 2017)
- visitor safety communication and management (QPWS 2015)
- alternative visitor experiences for Wollumbin / Mount Warning NP (NPWS 2013-2014)
- promoting and managing national parks (ARC, WA DEC and Parks Victoria 2010-2013)
- tour guide training (in Australia and several other countries, most recently Tonga 2012)

Betty has won numerous research, supervision and publication awards including the Dean's Excellence in Research (Monash Business School) and Excellence in Community Engagement (Research).

Betty has also sat on numerous advisory committee including:

- Gondwana Rainforests of Australia World Heritage Technical and Scientific Advisory Committee
- Parks Victoria Scientific Advisory Committee
- Zoos Victoria Science Advisory Committee
- Australian Research Council (Expert Assessor)

Betty is currently employed part-time in the School of Business & Tourism at SCU and is a member of SCU's Emeritus Faculty. A selected list of publications follows, beginning with those most relevant to the current proposal.

Publications of relevance to Springbrook National Park and SE Queensland tourism

1. Gstaettner, A.M, Lee, D. and **Weiler**, B. (2020) Responsibility and preparedness for risk in national parks: Results of a visitor survey. *Tourism Recreation Research*. 45:4, 485-499. DOI: [10.1080/02508281.2020.1745474](https://doi.org/10.1080/02508281.2020.1745474)
2. **Weiler**, B., Moyle, B. D.; Scherrer, P., Hill, M. (2019). Demarketing an iconic national park experience: Receptiveness of past, current and potential visitors to selected strategies. *Journal of Outdoor Recreation and Tourism* 25: 122–131. <https://doi.org/10.1016/j.jort.2018.06.001>
3. Saunders, R., **Weiler**, B., Scherrer, P., Zeppel, H. (2019). Best Practice Principles for Communicating Safety Messages in National Parks. *Journal of Outdoor Recreation and Tourism*. 25: 132–142. <https://doi.org/10.1016/j.jort.2018.01.006>
4. Wilson, E., Nielsen, N., Scherrer, P., Caldicott, R., Moyle, B., **Weiler**, B. (2018). To climb or not to climb: Balancing stakeholder priorities at an iconic national park. *Journal of Ecotourism* 17(2): 140-159. <http://dx.doi.org/10.1080/14724049.2017.1304398>
5. **Weiler**, B., Martin, V.Y., Canosa, A., and Cutter-Mackenzie, A. (2018). Generation Y and protected areas: A scoping study of research, theory and future directions. *Journal of Leisure Research* 49 (3-5): 277-297, DOI: 10.1080/00222216.2018.1542285
6. Martin, V.Y; **Weiler**, B.; Reis, A.; Dimmock, K.; Scherrer, P. (2017) 'Doing the right thing': How social science can help foster pro-environmental behaviour change in marine protected areas. *Marine Policy* 81, 236-246. <https://doi.org/10.1016/j.marpol.2017.04.001>
7. Moyle, B., Scherrer, P., **Weiler**, B., Wilson, E., Caldicott, R., Nielsen, N. (2017) Assessing Preferences of Potential Visitors for Nature-Based Experiences in Protected Areas. *Tourism Management* 62, 29-41. <http://dx.doi.org/10.1016/j.tourman.2017.03.010>
8. Moyle, B. D, and **Weiler**, B. (2017). Revisiting the importance of visitation: public perceptions of park benefits. *Tourism and Hospitality Research* 17(1): 91-105. <http://dx.doi.org/10.1177/1467358416638918>
9. Torland, M., **Weiler**, B., Moyle, B. & Wolf, I. (2015). Are your ducks in a row? External and internal stakeholder perceptions of the benefits of parks in New South Wales, Australia. *Managing Sport and Leisure* 20(4): 211-237. <http://dx.doi.org/10.1080/23750472.2015.1028428>
10. Ramkissoon, H., Smith, LD.G. and **Weiler**, B. (2013). Relationships between Place Attachment, Place Satisfaction, and Pro-Environmental Behaviour in an Australian National Park. *Journal of Sustainable Tourism* 21(3): 434-457.
11. Schliephack, J., Moyle, B. D. & **Weiler**, B. (2013). Visitors' Expectations of Contact with Staff at Cape Byron State Conservation Area, Australia, *Annals of Leisure Research*. 16(2): 160-174.
12. Wegner, A., Lee, D. and **Weiler**, B. (2010) Important 'ingredients' for successful tourism/protected area partnerships: partners' policy recommendations. *The Service Industries Journal*. 30 (10): 1643-1650.
13. Laing, J. H., Wegner, A., Moore, S. and **Weiler**, B. (2008). Identifying Success Factors Behind Partnerships for Managing Recreation and Tourism in Urban Fringe Parks. *Annals of Leisure Research* 11 (1/2): 101-122.
14. Ballantyne, B., Hughes, K., **Weiler** B., and Moscardo, G. (2008) *Roadside Signage Manual*. Sustainable Tourism CRC, Brisbane.
A how-to manual for developing and signing themed driving routes.

Other publications

Refereed journal articles (selected list)

1. **Weiler**, B.; Gstaettner, A.M.; Scherrer, P. (2021). Selfies to die for: A review of research on self-photography associated with injury/death in tourism and recreation. *Tourism Management Perspectives* 37. doi.org/10.1016/j.tmp.2020.100778
2. Yerbury, R.; Boyd, W.; **Weiler**, B. (2021). Encounters with wild, ecotour and captive marine mammals: what do they tell us about human wellbeing and environmental behaviour? *Tourism in Marine Environments*. 16(1). doi.org/10.3727/154427320X15888322468764
3. Stokes, D.; Apps, K.; Butcher, P.; **Weiler**, B.; Luke, H.; Colefax, A. (2020). Beach-user perceptions and attitudes towards drone surveillance as a shark-bite mitigation tool. *Marine Policy*. 120:104-127. doi.org/10.1016/j.marpol.2020.104127
4. Yerbury, R.; Boyd, W.; **Weiler**, B. (2020). Marine wildlife experiences and beliefs: Towards reciprocal benefits. *Ecopsychology* (special issue on *Ecopsychology: Reciprocal Healing: Nature, Health, and Wild Vitality*, guest edited by Dr. Tom Fleischner and Dr. Laura Sewall). 12(3): 209-221.
5. Yerbury, R. and **Weiler**, B. (2020) From human wellbeing to an ecocentric perspective: How nature-connectedness can extend the benefits of marine wildlife experiences. *Anthrozoös* 33(4): 461-479. doi:10.1080/08927936.2020.1771054
6. Markwell, K., **Weiler**, B., Skibins, J.C. & Saunders, R. (2019) Sympathy for the devil? Uncovering inhibitors and enablers of emotional engagement between zoo visitors and the Tasmanian devil, *Sarcophilus harrisi*. *Visitor Studies* 22(1): 84-103. doi: 10.1080/10645578.2019.1591840
7. Gstaettner, A. M., Lee, D., **Weiler**, B., & Rodger, K. (2019). Visitor safety in recreational protected areas: Exploring responsibility-sharing from a management perspective. *Tourism Management*, 75, 370-380. doi:10.1016/j.tourman.2019.06.007
8. Black, R., **Weiler**, B., Chen, H. (2019). Exploring theoretical engagement in empirical tour guiding research and scholarship 1980–2016: a critical review, *Scandinavian Journal of Hospitality and Tourism* 19(1): 95-113. DOI: 10.1080/15022250.2018.1493396
9. Backer, E. and **Weiler**, B. (2018) Travel and Quality of Life: Where do socio-economically disadvantaged individuals fit in? *Journal of Vacation Marketing* 24(2): 159-171. <http://dx.doi.org/10.1177/135676671769057>
10. Walker, Kaye and **Weiler**, Betty (2017). A new model for guide training and transformative outcomes: a case study in sustainable marine-wildlife ecotourism. Special issue of *Journal of Ecotourism*. The Future We Want: Effecting Positive Change through Ecotourism 16(3): 269-290. <http://dx.doi.org/10.1080/14724049.2016.1245736>
11. **Weiler**, B., Moyle, B.D., Wolf, I.D., de Bie, K. and Torland, M. (2017) Assessing the Efficacy of Communication Interventions for Shifting Public Perceptions of Park Benefits. *Journal of Travel Research* 56(4): 468-481. <http://dx.doi.org/10.1177/0047287516646472>
12. **Weiler**, B. and Chen, H.Y. (2016) Repositioning Australian Cities as Settings for Memorable Nature-based Experiences aimed at Chinese Tourists. *Tourism Recreation Research* 41(3): 246-258. <http://dx.doi.org/10.1080/02508281.2016.1203535>
13. **Weiler**, B. and Black, R. (2015). The Changing Face of the Tour Guide: One-way Communicator to Choreographer to Co-Creator of the Tourist Experience. *Tourism Recreation Research* 40(3): 364-378. <http://dx.doi.org/10.1080/02508281.2015.1083742>

14. Ruhanen, L., **Weiler**, B., Moyle, B. D. & McLennan, C. J. (2015). Trends and Patterns in Sustainable Tourism Research: A 25-Year Bibliometric Analysis. *Journal of Sustainable Tourism* 23(4): 517-535.
15. **Weiler**, B. & Walker, K. (2014). Enhancing the visitor experience: reconceptualising the tour guide's communicative role. *Journal of Hospitality & Tourism Management* 21: 90-99.
16. Moyle, B.D., **Weiler**, B., & Moore, S.A., (2014). Benefits that matter to managers: An exploratory study of three national park management agencies. *Managing Leisure* 19(6): 400-419.
17. Ramkissoon, H., **Weiler**, B., & Smith, L. (2013). Place attachment, place satisfaction and pro-environmental behaviour: A comparative assessment of multiple regression and structural equation modelling. *Journal of Policy Research in Tourism, Leisure & Events*. 5(3): 215-232.
18. **Weiler**, B., Moore, S.A., & Moyle, B.D. (2013). Building and Sustaining Support for National Parks in the 21st Century: Why and How to Save the National Park Experience from Extinction. *Journal of Park and Recreation Administration*. 31(2): 110-126.
19. Moyle, B.D., **Weiler**, B. and Croy, W.G. (2013). Visitors' perceptions of tourism impacts: Bruny and Magnetic Islands, Australia. *Journal of Travel Research* 52(3): 392-406.
20. Ramkissoon, H., **Weiler**, B. and Smith, L.D.G. (2012). Place Attachment and Pro-Environmental Behaviour in National Parks: The Development of a Conceptual Framework. *Journal of Sustainable Tourism* 20(2): 257-276.
21. Moyle, B. D., Croy W. G. & **Weiler**, B. (2010) Community Perceptions of Tourism: Bruny and Magnetic Islands, *Asia Pacific Journal of Tourism Research*. 15(3): 353-366.
22. Laing, J.H., Lee, D., Moore, S., Wegner, A. and **Weiler**, B. (2009) Advancing conceptual understanding of partnerships between protected area agencies and the tourism industry: A postdisciplinary and multi-theoretical approach. *Journal of Sustainable Tourism*. 17 (2): 207-230.
23. Moore, S. and **Weiler**, B. (2009) Tourism-Protected Area Partnerships: Stoking the Fires of Innovation. *Journal of Sustainable Tourism* 17 (2): 129-132.
24. **Weiler**, B. and Yu, X. (2008) Case Studies of the Experiences of Chinese Visitors to Three Tourist Attractions in Victoria Australia. *Annals of Leisure Research* 11 (1/2): 225-241.
25. **Weiler**, B. and Yu, X. (2007) Dimensions of cultural mediation in guiding Chinese tour groups: Implications for interpretation. *Tourism Recreation Research* 32 (3): 13-22.
26. Yu, X. and **Weiler**, B. (2006) The Experience of Chinese Visitors to Australia. *China Tourism Research* 2 (1/2): 60-72.
27. Black, R. and **Weiler**, B. (2005) Quality Assurance and Regulatory Mechanisms in the Tour Guiding Industry: A Systematic Review. *Journal of Tourism Studies* 16 (1): 24-37.
28. Armstrong, E. K. and **Weiler**, B. (2002) Getting the message across: an analysis of messages delivered by tour operators in protected areas. *Journal of Ecotourism* 1 (2): 104-121.

Manuals for protected area and tourism managers and planners (selected list)

1. Ham, S.H., Brown, T.J., Curtis, J., **Weiler**, B., Hughes, M., and Poll, M. (2007). *Promoting Persuasion in Protected Areas: A Guide for Managers. Developing strategic communication to influence visitor behaviour*. Sustainable Tourism CRC, Brisbane.
A persuasive communication research how-to manual for protected area managers.
2. Ham, S. H., Housego, A. and **Weiler**, B. (2005). *Thematic Interpretation Planning Manual*. Tourism Tasmania. A manual for interpretive planners and managers of destinations, attractions, tours and other tourism products.