K'gari Waters (Hervey Bay) Whale Watch Fleet
Observation of Operations - 2021 Season
& Recommended Actions for Five-year Strategy to maintain World Heritage Site & World Whale Watch Capital Status

Prepared for Hervey Bay Whale Heritage Site Steering Committee
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1 - Acknowledgement to Butchulla Waters and Country

We acknowledge the Butchulla Waters and Country upon which the K'gari Waters (Hervey Bay) Whale Watch Industry operates. We also acknowledge Butchulla Elders past, present and emerging.

Butchulla Family Clans living along the eastern shore of K'Gari likely witnessed humpback whales during both the northern and southern migrations over many millennia. Butchulla Family Clans living along the northwestern coastline of K'Gari - from the northern tip of K'Gari, to Rooney's Point, then Wathumba and down to Moon Point - likely witnessed humpback whales using the Waters of K'Gari prior to Cook's transit across the northern opening into the Waters of K'Gari, on 22nd May 1770. This is a story yet to be fully told!

In recognition of the renaming of Fraser Island to its original Butchulla name of K'gari (Paradise) [See Section 18 below & https://statements.qld.gov.au/statements/93269], the nomenclature adopted for this report is:
K'gari (Fraser Island).
K'gari Waters (Hervey Bay Whale Watching Area).
K'gari Straits (Great Sandy Straits).

2 - Dedication

This report is dedicated to the memory of Dr Trish Franklin who initiated a long-term study of eastern Australian Humpback Whales in K'gari Waters (Hervey Bay) in 1989. Trish's body of published peer reviewed scientific work provided the evidence that K'gari Waters (Hervey Bay) is a globally unique Whale Watching destination for vessel-based whale tourism involving humpback whales. Trish's published science also contributed to the successful application by Fraser Coast Tourism and Events to the World Cetacean Alliance, resulting in K'gari Waters (Hervey Bay) being accredited as the World's First 'Whale Heritage Listed Site'. At the Fraser Coast Business & Tourism Awards on Friday 5th November 2021, Dr Trish Franklin was awarded the John Craig-Gardiner Memorial Award for long-term dedication and commitment to the Fraser Coast Tourism & Business Industry.

This report is also dedicated to the K'gari Waters (Hervey Bay) Whale Watch Industry proprietors, skippers and crew members, who shared their insights, knowledge and expertise with Dr Wally Franklin during the observation of operations in September and October 2021, including: Lloyd Burgess & Rachel Nidiffer, Pure Dive; Nick Thorp & Vicki Neville, Tasman Venture; Sam Peaker & Josh Peaker, Quick Cat II; Peter Lynch, Blue Dolphin; Andrew Ellis & Darcy Stirling, Ocean Defender; Phil House & Josie Faulkner, Amaroo; Rick Peipman, Whalesong; Keith Reid, Freedom III; Des See & Louis Ray, Spirit of Hervey Bay; Ken Gibson, Arcadia.

3 - Executive Summary

Commercial Whale Watching of humpback whales in K'gari Waters (Hervey Bay) commenced in 1987. Immediately the Queensland Government implemented a process to establish Hervey Bay as a Marine Park and, in consultation with the Whale Watch Industry, developed Whale Watching regulations, a permit system, an industry 'Code of Ethics' and a well-researched education and interpretive program aboard the Whale Watch Fleet. Over the next thirty-years the Hervey Bay Whale Watching Industry made significant contributions to the economic, social, and sustainable livelihoods of the Hervey Bay Community and attracted large numbers of International, National and State visitors to Queensland and the Wide Bay Region. The Fraser Coast Snapshot in 2020 reported that 'Nature Tourism' contributed an average of $108 million per annum to the local economy between 2018 and 2020. In 2019 Fraser Coast Tourism and Events (FCTE) applied to the World Cetacean Alliance (WCA) for Hervey Bay to be accredited as a World Heritage Site (WHS) for Whale Watching. At the World Whale Conference held in Hervey Bay in October 2019, and co-hosted by the WCA and FCTE, Hervey Bay was accredited as the World's first WHS location and crowned the Whale Watch Capital of the World. As part of Hervey Bay's obligations, under the conditions of accreditation, the Hervey Bay Whale Heritage Steering Committee was established, with Hervey Bay's Mayor Cr George Seymour as Patron and Dr Kathy Townsend of the University of Sunshine Coast as Chairperson with Members drawn from Tourism, Fraser Coast Regional Council, Queensland Parks & Wildlife Service, Whale Watch Industry and Education, Butchulla, and Research Organisations. During 2020 and 2021 covid caused closure of international and State borders which impacted visitor numbers to the region and delayed the work of the WHS Steering Committee. During 2021 the WHS Steering Committee has held eight meetings, undertaken a review of Whale Watch Operations and developed a five-year 'Action Plan & Strategy', which is outlined in this report. The primary focus of the 'Action Plan & Strategy' is to optimize the global marketing opportunity provided to Hervey Bay and the Wide Bay Community from being accredited as the 'World's First Whale Heritage Site' location and rebuild and increase the International, National and State visitor numbers to Australia, Queensland, and the Wide Bay Region. To fully implement the 'Action Plan & Strategy' funding of $250,000 during 2022, will be sought from Fraser Coast Regional Council, Queensland Government and the Federal Government from existing covid and tourism recovery programs. Full implementation of the 'Action Plan & Strategy' will result in immediate economic, social and Community benefits for the Wide Bay Region, but will also fully involve the participation of and create livelihood opportunities for the Butchulla Peoples of the Wide Bay Region.

4 - Preamble

Commercial Whale Watching commenced in K'gari Waters (Hervey Bay) in 1987. At the World Whale Conference, held in Hervey Bay in October 2019, hosted by the World Cetacean Alliance and Fraser Coast Tourism and Events, it was announced that K'gari Waters (Hervey Bay) had achieved accreditation as the World's First Global Whale Heritage Site. Accreditation of K'gari Waters (Hervey Bay) was based on a successful application - prepared under the direction of Martin Simons, CEO, Fraser Coast Tourism & Events - which presented at length and in extensive detail, the case for K'gari Waters (Hervey Bay) accreditation in terms of the World Cetacean Alliances four criteria, in the categories of: respectful Human – Cetacean coexistence; celebrating cetaceans; environmental, social, and economic sustainability and research, education and awareness.

A copy of the Whale Heritage site application can be obtained from Fraser Coast Tourism and Events, for anyone interested in the thirty-year process that under-pinned and led to the exhaustive evaluation of the K'gari Waters (Hervey Bay) application by the World Cetacean Alliance's International Revision Panel (IRP), resulting in K'gari Waters (Hervey Bay) successful accreditation and being awarded full Whale Heritage Site status beginning 11th October 2019.

The focus of this report is actions undertaken by the Hervey Bay Whale Heritage Steering Committee during 2021, a review of Whale Watch operation during the 2021 whale season and recommendations for a five-year 'Action Plan & Strategy' for K'gari Waters (Hervey Bay) to retain World Heritage Status and to remain the Whale Watch Capital of the World and rebuild visitor numbers in a post covid world.

5 - World Cetacean Alliance - Whale Heritage Site Aspirations

Established by the World Cetacean Alliance (WCA), Whale Heritage Sites aim to increase the protection and conservation of cetaceans (whales, dolphins, and porpoises) and their habitats while contributing to sustainable livelihoods, the arts, science and education. Whale Heritage Site (WHS) status will be granted to those places around the world where cetaceans are celebrated through art, education, research, and cultural events; where sustainable practices and livelihoods are continually improved to ensure the health of cetacean habitats and the long-term economic health of human communities; and where respectful coexistence with cetaceans is supported through law, policy, and cooperation.

Whale Heritage Sites (WHS) are high sea or coastal marine areas, and less often freshwater rivers and lakes, where cetaceans live, and their associated land areas. WHS will be identified against criteria that interweave natural and cultural elements and acknowledge critical places that, for reasons of physical and social geography, are sites where people can coexist with cetaceans in an authentic and respectful way.

Each WHS creates its own Steering Committee, which is comprised by local key organizations, governmental and non-governmental represented by competent people with an honest and active trajectory on cetacean conservation related fields.

6 - Hervey Bay Whale Heritage Site Steering Committee

The inaugural meeting of the Hervey Bay Whale Heritage Site (WHS) Steering Committee was held on Friday 9th January 2021 at the University of the Sunshine Coast Board room and Dr Kathy Townsend was elected Chairperson (The delay between Hervey Bay's accreditation in October 2019 and the establishment of the WHS Steering Committee in January 2021 was a consequence of severe impacts from covid).

Current Membership and Affiliations of the Hervey Bay WHS Steering Committee are:

Cr George Seymour	(Patron, Mayor, Fraser Coast Regional Council)
Dr Kathy Townsend	(Chair, University of the Sunshine Coast)
Martin Simons	(Fraser Coast Tourism & Events)
Shahab Pourfakhimi	(University of the Sunshine Coast)
Michelle Hay	(University of the Sunshine Coast)
Myles Broome	(Butchulla Representative)
Steve Hoseck	(Queensland Parks and Wildlife Services)
Daniel Clifton	(Queensland Parks and Wildlife Services)
Phil House	(Boat Club Adventure Cruises)
Peter Lynch	(Blue Dolphin Marine Tours)
Ken Diehm	(Fraser Coast Regional Council)
Dr Wally Franklin	(The Oceania Project)
Andrew Ellis	(Pacific Whale Foundation)
Kelly Dorries	(Urangan State High School)
Hannah Walker	(Committee Secretariat, Fraser Coast Tourism & Events)

The Hervey Bay WHS Steering Committee has held eight meetings during 2021 and the Action Plan and Five-Year Strategy arising from those meetings, together with insights, comments and contributions from the annual review of Hervey Bay Whale Fleet operations is summarised in this report. The Steering Committee also needed to address the two recommendations and one action identified by the WCA's IRP and communicated in the letter dated 4th October 2019.

7 - State of current operations of Whale Watch Fleet

Between 12th September and 10th October 2021, a review of current whale watch fleet operations was undertaken by Dr Wally Franklin on behalf of the Hervey Bay WHS Steering Committee. Details of the trips undertaken are summarised in Table I attached, and include; dates of trips, Skipper of Whale Watch Vessel, Person providing onboard interpretation & educational information, Principals of each whale watch vessel, summary of whale watch tours operated by each vessel, vessel type and passenger capacity for whale watch cruises, website address, status of WHS Logo and ECOTourism logo on each website and summary of tours & cruises operated outside of whale watch season.

Overall humpback whale pod interactions were of the quality and type expected in K'gari Waters (Hervey Bay). Predominantly mother-calf pods were encountered due to the time of the year. Customer satisfaction during each trip was observed to be high. All vessels operated in accordance with the regulated approach distances and the 'Industry' agreed code of ethics. Communications and sharing, of both whale pods and pod information, between all vessels operating on each day, was of a high standard and conducted on a civil and friendly basis. The provision of interpretative and educational information provided varied according to weather conditions, type of pod interaction, personality of the interpretive person and was unique to each of the vessels. However, the content of interpretative and educational information was consistent with the high standards established during the early years of whale watch operations in K'gari Waters (Hervey Bay). The proportion of interpretive and educational information dedicated to humpback whales and cetacea generally, other marine species, ecology of K'gari Waters (Hervey Bay), K'Gari (Fraser Island) and K'gari Straits as well as K'gari Straits Biosphere, varied significantly between vessels. A few vessels provided high quality information on all topics; others predominantly provided humpback whale & cetacean information. Overall little information was provided about local Butchulla indigenous history and culture.

Proprietor Skippers, Skippers and Interpretative Crew were keen to learn about Whale Heritage Listing status and were eager to discuss a range of idea's, comments, and suggestions on the state of Whale Watch operations and future directions of the K'gari Waters (Hervey Bay) Whale Watch Industry. Much of the 'Recommended Actions' presented in this report draws on those discussions, comments, ideas and contributions by Proprietor Skippers, Skippers and Interpretative Personnel and other Crew Members, aboard the trips undertaken. Hence the dedication on page 6 above.

8 - Whale Heritage Site Branding

Hervey Bay's achievement of being the first Whale Watching location in the World to be awarded and accredited as 'Whale Heritage Listed' provides K'gari Waters (Hervey Bay), in marketing terms, with a global point of difference compared to other Whale Watching locations and a powerful long-term marketing umbrella for state, national and international markets. However, to fully realise such an important marketing asset the significance and importance of that 'point of difference' must be reflected in the marketing material and information available at all levels of the whale watch industry, tourism industry, related service industries, commercial activities, and the Hervey Bay Community.

Consequently, WHS branding and availability of supporting information about the significance, benefits and value of being the World's first WHS location is a key to optimizing that marketing advantage and to attract and build Whale Watching visitor numbers.

As can be seen from Table I, only one whale watch operator provided information about K'gari Waters (Hervey Bay) WHS status, and one other operator presented a version of the WHS logo, with no link to supporting information. Neither operator, linked to the core WHS information provided on two separate web pages on the Fraser Coast Tourism and Events website (https://www.visitfrasercoast.com/the-worlds-first-whale-heritage-site/ & https://www.visitfrasercoast.com/whales-hervey-bay/). Furthermore, there was a paucity of on-board information about the history, benefits, and value of Whale Heritage Site accreditation for K'gari Waters (Hervey Bay).

In contrast to absence of the WHS logo, all Whale Watch Operators have ECOTourism certification (see: https://www.ecotourism.org.au/our-certification-programs/eco-certification/) and all but two operators display the visually strong ECOTourism branding on their website homepages. ECOTourism Australia provides clear and strong guidance to operators about the use and application of the ECOTourism branding (https://www.ecotourism.org.au/our-certification-programs/logo-use/). It should be noted that ECOTourism accreditation is mandatory in the Great Sandy Marine Park, Commercial Activity Agreements (Whale Watch Permits).

Presently two alternative WHS branding logos are in limited use and compared to the ECOTourism branding, they lack visual branding power and clarity of purpose.

Recommended Action - 1: Negotiate with World Cetacean Alliance to review WHS branding and to develop a single visually strong WHS brand logo, with supporting guidelines of application; or alternatively, Hervey Bay commission and implement its own WHS branding logo for K'gari Waters (Hervey Bay), with supporting guidelines of application.

9 - Implementation of Whale Heritage Site Branding and information

Implementation of WHS branding and information will be key to maximising the benefits arising from Whale Heritage Site accreditation and fully engaging the Whale Watch Industry, related tourism service industry and the Hervey Bay Community. The re-developed WHS Branding logo will provide the focal point. The following recommended actions draw strongly on discussions, comments and suggestions from Whale Watch Proprietor/Skippers, Skippers and Crew, during the annual review of K'gari Waters (Hervey Bay} Whale Watch Fleet Operations.

Recommended Action - 2: All information related to the history, benefits, and value of WHS accreditation for K'gari Waters (Hervey Bay) should be consolidated into a single redesigned Fraser Coast Tourism and Events (FCTE) webpage which, strongly features the new WHS logo. Use of the WHS logo or any mention of WHS accreditation elsewhere throughout the FCTE website should link back to this WHS information page.

Recommended Action - 3: A clear digital brief with digital assets should be developed for the K'gari Waters (Hervey Bay) Whale Watch Fleet with guidelines on how to use the WHS logo with a link from the logo, back to FCTE WHS information page. This same digital brief could be made available to other Fraser Coast Region Tourist Operators, Fraser Coast Tourist Accommodation, related tourist services & Hervey Bay Community Organisations.

Recommended Action - 4: A single fold, four-page brochure which succinctly summarises the history, benefits, and value of WHS accreditation for K'gari Waters (Hervey Bay) should be produced in large quantities for at least two whale seasons. The brochure should carry a QR code which links back to the FCTE WHS webpage. This brochure can be distributed aboard Whale Watch Vessels during the season, to Whale Booking offices, tourist accommodation, tourist retail outlets and Hervey Bay Community organisations.

Recommended Action - 5: A A4 poster, with succinct WHS information and, prominent QR code linking back to FCTE WHS webpage could also be made available for prominent display in the same outlets to which, the above brochure is distributed.

10 - Central source of up-to-date training, accreditation, and information

Discussion with Proprietor Skippers, Skippers and Crew during the Whale Watch Fleet review raised three important issues.

The initial standards of interpretative and educational information provided aboard the Whale Watch Fleet were formally developed and documented through consultation and collaboration between Queensland Marine Parks, Queensland Parks and Wildlife and the Whale Watch Industry and have been well maintained over the last thirty-years through on-board oral training, particularly from many long-term Proprietors and Skippers in the Whale Watch Fleet. With likely turn-over of, and or inevitable retirement of, many of those long-term industry participants; how will interpretative and educational content and standards aboard the K'gari Waters (Hervey Bay) Fleet be sustained in the future?

Secondly the Marine System has a well-established certification and training process for both women and men regarding the operation of commercial vessels at sea. However, operating a commercial vessel around humpback whales, requires a different and specific set of skills and experience. No formal policy or program for certification or accreditation of Marine Trained Crew to become competent Whale Watch Skippers and Tour Guides exists. Over the last thirty-years accumulation of the necessary skills and experience to become a competent Whale Watch Skipper has been obtained through an informal apprentice-type process, often involving someone holding the relevant marine qualifications, working for several seasons under the guidance of an experienced Whale Watch Skipper, to gain the opportunity to become a Whale Watch Skipper. Clearly a policy and formal training and accreditation program is needed to ensure the future availability of individuals with both the necessary 'Marine' and 'Whale Watch Skipper and Guide' competency, to operate around humpback whales in Hervey Bay.

Finally, a central source of information needs to be available for Whale Watch Fleet Proprietors, Skippers and Crew. For example, at present there is no central source of information for Crew members to obtain information about their reporting responsibilities in the event of either witnessing or participating in an incident-at-sea during Whale Watch. Operations. Similarly, the central source of information would be a primary communications forum for any updates or changes in regulations or compliance, advice of new research available and any agreed developments of implementation of policy developments of changes.

Recommended Action - 6: The University of the Sunshine Coast be funded to investigate and develop an online training and accreditation platform on the following subjects:

A - Humpback whales & Cetacea generally;

B - Bathometry and ecology of K'Gari waters (Hervey Bay), K'Gari (Fraser Island) and the K'gari Straits (Great Sandy Straits & Biosphere);

C - History of the Wide Bay Region including K'Gari waters (Hervey Bay), K'Gari (Fraser Island) and;

D - Butchulla culture, traditions, and knowledge of K'Gari waters (Hervey Bay), K'Gari (Fraser Island) and the K'gari Straits biosphere. The latter to be developed with full participation, guidance, and collaboration of Butchulla Elders, Organisations and Young People.

Furthermore, that all the above programs should capture and incorporate the thirty-years of accumulated knowledge of the 'Elders' amongst the K'gari Waters (Hervey Bay) Whale Watch Fleet.

Recommended Action - 7: The WHS Steering Committee to engage with the Proprietors and long-term experienced Skippers of the K'gari Waters (Hervey Bay) Whale Watch Fleet to develop a policy and accreditation program for individuals with relevant marine qualifications to become qualified 'Whale Watch Vessel Operators & Guides', such a program might for example include at least a season aboard a Whale Watch Vessel in 'apprenticeship' to an experienced long-term and established 'Whale Watch Skipper Guide'.

Recommended Action - 8: That a SharePoint style communication's forum be established, together with an administered mailing list, with three levels of access for: Whale Watch Vessel Proprietors, Skippers and General Crew. This will function as the main means of communication between the Whale Watch Industry and the Hervey Bay WHS Steering Committee.

11 - Community Engagement - Future Developments

As reported in the application to the World Cetacean Alliance for World Heritage Status, Hervey Bay has a well-established community engagement program that has been operating and evolving over many years - the Annual Hervey Bay Whale Festival, see: https://herveybaywhalefestival.com.au The Annual Whale Festival includes 'Blessing of the K'gari Waters (Hervey Bay) Whale Watch Fleet'; 'Paddle Out for the Whales'; Hervey Bay Seafood Festival' and during the 2021 season, the new 'Creating Waves' event.

To assess, evaluate and investigate further development in Community engagement the Steering Committee recommended a comparative study between K'gari Waters (Hervey Bay) and other established Whale Watch Locations. Dr Kathy Townsend of University of Sunshine Coast agreed to initiate a 'Special Research Project' to undertake the study early in 2022. The locations for comparison suggested were Massachusetts, Hawaii and the Bluff region in South Africa, which was awarded WHS status along with K'gari Waters (Hervey Bay).

Recommended Action - 9: The Steering Committee will review the outcomes of the study as a basis for further development of the Hervey Bay Community Engagement program.

12 - Educational Schools Program

During the year Captain Andrew Ellis reported to the Hervey Bay WHS Steering Committee that Pacific Whale Foundation (PWF) and Urangan State High School (USHS) partnered together during the 2021 Whale Season to engage year 10 marine science students in annual community research on whales and marine life in the Great Sandy Marine Park. Team members from PWF presented two in-class demonstrations and instruction on research methodology and the need to further understand the population dynamics of our marine life, followed by an on-water morning aboard the PWF Whale Watch vessel 'Ocean Defender' for practical data collection.

Learning goals for the students:

1. Understand whale biology, identification, migration & population dynamics
2. Understand current research programs being conducted by PWF
3. Collect and analyse primary and longitudinal whale data
4. Communicate their analysis, interpretation, and conclusion
5. Build connections with PWF researchers with the possibility of volunteering to participate in annual research programs

The Program outline:

Whale biology and population dynamics 1. Understand whale biology, identification, migration patterns and population dynamics. · Food web dynamics · Life cycle including breeding patterns · Migration patterns in the Southern and Northern Hemisphere · Population dynamics before, during and after commercial harvesting · Methods used to determine population numbers
Pacific Whale Foundation Research 2. Understand current research programs being conducted by the PWF. · Summarise key understanding gained from PWF such as: Research questions asked, Research methods including sampling techniques, Primary data collection characteristics and locations, Forums for communication of research findings, Skills/qualifications of research personnel. 3. Understand how to use primary data collection protocols for the

identification and tracking of whale populations such as the whale and dolphin tracking app. 4. Build connections with researchers of the PWF with the possibility of volunteering to participate in their annual research program
Data collection (in groups of 3-4 students) 5. Collect primary data such as identification, number and whale location and dolphin tracker app. 6. Collect secondary longitudinal data on individual or groups of whales recording in the primary data collection. **Analyse, interpret and conclude (in groups of 3-4 students)** 7. Analyse and interpret primary and longitudinal data of recorded individual or groups of whales 8. Communicate their findings in a modified scientific report.

Recommended Action - 10: Continue discussions with Hervey Bay Schools to identify and implement additional educacional Schools programs.

13 - Recreational Boating - Risk & Educational Opportunity

During the last three decades the presence of recreational boating on the Waters of K'Gari (Hervey Bay) have increased significantly and has led to an increasing incidence of conflict between Whale Watch Vessels around humpback whale pods and associated compliance issues. Also, there is a likely increase in the rate of vessel strikes between recreational vessels and humpback whales and other marine species occurring in K'gari Waters (Hervey Bay). A research project will be commenced in K'gari Waters (Hervey Bay) during 2021 looking at vessel strike potential (see Section 11 below). The K'gari Waters (Hervey Bay) Whale Watch Fleet has, and should continue to take, a pro-active role in educating recreational vessel operators on how to operate in and around humpback whale pods.

Recommended Action - 11: Ensure that all Whale Watch Skippers and Crew are aware of their compliance reporting responsibilities and have ready access, via the communications forum, to either the appropriate reporting forms, or at least information on where such forms are available from Queensland Parks & Wildlife Service.

Recommended Action - 12: Include recreational vessel operators in the distribution of information about Hervey Bay's Whale Heritage site status and liaise with Queensland Parks & Wildlife Service on the availability of information signs at recreational boating ramps with relevant QR codes related to 'compliance of regulations' when operating around whale pods, on Queensland Parks & Wildlife websites and 'Whale Heritage Site' information on the FCTE website.

14 - Research & Citizen Science

Prior to the commencement of the 2021 Whale Watch season a comprehensive report on research in K'gari Waters (Hervey Bay), from 1987 to the present, was prepared by Drs Trish & Wally Franklin for the WHS Steering Committee which, also included a summary of new research programs planned from the 2021 season (PDF of report attached).

A pre-season meeting between the Commercial Whale Watching Industry and Queensland Parks & Wildlife Service took place on Tuesday 13th July 2021.The meeting, hosted by Queensland Parks and Wildlife, reviewed commercial activity agreements (whale watch permits), current legislation, regulations, procedures for reporting incidents and compliance. Brief presentations on research programs being undertaken in Hervey Bay during the 2021 season were provided, which included:

A - Amanda Peterson, PhD Candidate, University of Sunshine Coast: 'The abundance, environmental influences, predator interactions, and genetic relatedness of Hervey Bay's humpback whale population'. (The WHS Steering Committee endorsed this project and supported a successful seed funding application by Amanda to Fraser Coast Council).

B - Dr Wally Franklin, Principal Investigator, The Oceania Project: 'Photo-identification of individual humpback whales (Megaptera novaeangliae) using all available natural marks: implications for misidentification and automated algorithm matching technology', based on Dr Trish Franklin 2020 paper published in the Journal of Cetacean Research & Management.

C - Andrew Ellis, Director Australian Operations, Pacific Whale foundation (PWF), Dr Stephanie Stack and Dr Barry McGovern: 'Pacific Whale Foundation's Research Program, research plans for this season and into the future'.

D - Raphael Mayaud, PhD Candidate, Griffiths University: 'Traffic in the playground: Establishing the ecological importance of Moreton Bay to migrating humpback whales'; project includes comparison between Morton Bay and K'gari Waters (Hervey Bay).

Also, Dr Cathy Townsend updated the meeting on the role and activities of the WHS Steering Committee

A Whale Festival Event 'Creating Waves' (https://herveybaywhalefestival.com.au/creating-waves/), held in the main lecture theatre at the University of the Sunshine Coast on the 18th of September 202. The event provided the opportunity for members of the Public to learn about research being conducted in K'gari Waters (Hervey Bay) and conservation activities for whales. The event was recorded to allow wider Public exposure, see: https://bit.ly/3kfN5dh .

Two other research projects related to K'gari Waters (Hervey Bay) were commenced during 2021:

1 - Hansika Badhuge: Masters Project, Southern Cross University, title 'Determining the migration paths and destinations of humpback whales (Megaptera novaeangliae) visiting Hervey Bay '. (This project involves systematically loading of Dr Trish Franklin's Hervey Bay Fluke Catalogue onto the 'Citizen Scientist' platform HappyWhale).

2 - Jill Corey: BSc Honours Project, title 'Using citizen science to analyze interconnectivity of EI humpback whale (Megaptera novaeangliae) population in two eastern Australian Bay's. (This project will also use the HappyWhale 'Citizen Scientist' platform for photo-matching between Dr Trish Franklin's Hervey Bay Fluke Catalogue and a Morton Bay Fluke Catalogue)

Three other Hervey Bay research projects are in development:

1 - Title: 'Voices of Oceania: Seasonal and diurnal patterns of humpback whale song and sounds in Hervey Bay, Queensland, Australia'

> Principal Investigators, Dr Wally Franklin, and Mark Francis Franklin, The Oceania Project. A five-year project (Potential Honours, Master & PhD Projects).

2 - Title: 'Monitoring relative movements of humpback whales and whale watch vessels in Hervey Bay, Queensland, Australia'.

> Principal Investigators, Dr Wally Franklin, and Mark Francis Franklin, The Oceania Project. This project will utilise World3Sat high resolution images and AIS monitoring of whale watch vessels (Potential Honours, Master & PhD Projects).

3 - Working Title: 'Humpback whales in the Waters of K'Gari (Hervey Bay), The Untold Story: Butchulla Elders Oral History; Archeological evidence and Records from early European Explorers'.

> Principal Investigator, Dr Wally Franklin, Dr Jonathon King, in full collaboration and co-authorship with Butchulla Elders, including Uncle Glen Miller, Uncle Malcolm Burns & Gemma Cronin.

Recommended Action - 13: Pre-season meeting with Whale Watch Industry be scheduled as an annual event to provide up-to-date briefings on current legislative regulations and compliance issues, reports on research projects in progress and briefings on new research projects.

Recommended Action - 14: 'Creating Waves' be scheduled as an Annual Public event during the 'Hervey Bay Whale Festival'. This provides an opportunity for Community

engagement in ongoing and new research projects and as well an opportunity to increase awareness of the activities of the Hervey Bay WHS Steering Committee.

15 - Regional Social, Economic, Commercial Opportunities

Hervey Bay's successful application to the WCA detailed and confirmed the existing social, economic, and commercial opportunities for the Wide Bay Region from the Whale Watching Industry. However, to provide a basis for evaluation of future social, economic and commercial opportunities from the Wide Bay Region's relationship with Cetacea (Whales & Dolphins), the Steering Committee instigated a Special Research Project through the University of the Sunshine Coast, to investigate and compare three primary international whale watch locations with the Hervey Bay and the Wide Bay region.

An example of a successful innovative commercial project based on Cetacea & the Oceans in the Wide Bay Region is 'World Treasure Designs', see: https://worldtreasuredesigns.com . The business was developed by the Thorp Family and involves a unique collaboration of local artisans, creating "Jewellery that is inspired by Cetacea and the Oceans, ethically made from sustainably sourced metals and materials, by skilled jewellers working for fair wages in a safe and comfortable work environment".

An important development for the to extension the Hervey Bay 'Whale & Dolphin' nature experiences throughout the rest of the year in Hervey Bay, will be a prominent 'Marine Experience and Research Centre'. The WHS Steering Committee was briefed during the year by Fraser Coast Council Committee Member Ken Diehm on preliminary conceptual planning for such a development being undertaken by the Fraser Coast Regional Council.

Mayor George Seymour reported that a report on the project was presented to the Fraser Coast Regional Council on the 24th September 2021, see: https://www.frasercoast.qld.gov.au/news/article/1341/a-hervey-bay-marine-experience-and-research-centre

Recommended Action - 15: Use outcomes from the Special Research Project 'Comparative Study' to review and evaluate social, economic, and commercial opportunities for Wide Bay Region, from Hervey Bay relationship with Cetacea and the Oceans and Continue liaison with Fraser Coast Council on progress with the 'Marine Experience and Research Centre' project.

16 - 'Swim-With' Activity in Hervey Bay

After a three year-trial of 'swim-with' humpback whales, the activity was commenced in K'gari Waters (Hervey Bay) in 2014. Strong 'rules of engagement' were implemented and a self-regulated 'code of ethics' was adopted by the Whale Watch Industry in K'gari Waters (Hervey Bay). In Australia it is illegal to conduct 'swim-with' activity when a calf is present in a humpback whale pod.

Since 2014 'swim-with' has remained a 'niche' market contributing a small percentage of revenue to Whale Watch Operations in K'gari Waters (Hervey Bay), compared to the K'gari Waters (Hervey Bay) core successful business of 'vessel' based whale watching. During the 2021 season only one operator actively promoted and undertook 'swim-with' activity, while most operators reported conducting only a few 'swim-with' or 'immersion' activities. In practical terms operators have found that - due to strong tides and poor visibility, weather conditions, presence of mother-calf pods for most of the season and, the conflict between 'swim-with' patrons and 'vessel-based' whale watching patrons aboard whale watch vessels - 'swim-with' is not a viable option.

Over the last three-years Pacific Whale Foundation has conducted a 'swim-with' research program to '(1) examine short-term behavioural responses in whales *before, during*, and *after* swim-with-whale tours, and (2) investigate behavioural responses of whales throughout swim-with-whale tours compared to whale watch tours; Results of the study have now been published in Frontiers of Marine Science, see: https://doi.org/10.3389/fmars.2021.696136

The results support the conclusion that the behaviour of humpback whales in K'gari Waters (Hervey Bay) was altered in response to swim-with-whale tourism. This outcome is consistent with research results on 'swim-with' from other parts of the world. Moreover, there have been numerous reports of incidents involving injury during 'swim-with' activity.

To enable a balanced discussion on the issue of the future of 'swim-with' activity in K'gari Waters (Hervey Bay), Dr Kathy Townsend of USC will undertake a 'Special Research Project' early in 2022, to review recent published literature on 'swim-with' activity and to report on incidences of injury arising from 'swim-with' activity in western Australia and, other areas of the world.

An important point made by an operator during the review of Fleet operations was that "if 'swim-with' was ended in K'gari Waters (Hervey Bay) and 'swim-with' affects behaviour of humpback whales around whale-watch vessels; what will be impact of 'unmonitored and unregulated' swim-with activity along the coastline of southeast Queensland and New

South Wales, on the future behaviour of humpback whales around whale watch vessels in K'gari Waters (Hervey Bay)".

Recommended Action - 16: Use outcomes from Special Research Project as the basis for a conversation among the K'gari Waters (Hervey Bay) Whale Watch Industry on the future of 'swim-with' activity in Hervey Bay.

Recommended Action - 17: Consider a policy stance to be taken by K'gari Waters (Hervey Bay) on advocacy against humpback whale 'swim-with' activity along the coastline of eastern Australia and western Australia.

17 - Climate Change - An 'Existential' Risk to Whale Watching in K'gari Waters (Hervey Bay) and the K'gari Biosphere

At the COP Climate Conference just completed in Glasgow an update on the science of climate change was presented, see: https://10insightsclimate.science. This report shows that the world's temperature profile is on a trajectory towards an increase in global temperatures of 1.5°C in 11 years and to 2°C in 32 years. This profile is also acknowledged by CSIRO Scientist & the Queensland Government, see: https://www.redmap.org.au/article/sea-temperatures-and-climate-change-in-queensland/ .

Temperature rises of this magnitude will have impacts on humpback whale breeding, feeding and migratory patterns (e.g., see Derville et al. 2019, https://bit.ly/3DgRfJh). K'gari (Hervey Bay) Whale Watch operators anecdotally consider the early end to the humpback whale migration through K'gari Waters (Hervey Bay) in 2020 & 2021, may be temperature related. Some local scientists including Dr Olaf Meynecke, also support this view (see Meynecke et al. 2021, https://bit.ly/3FdnUjI). Also see ABC article, 14th Nov 21: https://ab.co/3DeVi97. Drs Trish & Wally Franklin have contributed The Oceania Project's K'gari Waters (Hervey Bay) humpback whale dataset as a 'Collaborative Partner' with Dr Olaf Mynecke's, 'Whales & Climate' project, see: https://whalesandclimate.org

Finally early environmental study of eutrophic conditions in K'gari Waters (Hervey Bay) by Drs Trish & Wally Franklin showed that Chlorophyll A levels in the Bay, where humpback whales aggregate are closer to oceanic, rather than coastal levels (Moss et al. 2004, Franklin et al. 2018). Sea temperature rises will also impact environmental conditions in Hervey Bay.

Recommended Action - 18: The K'gari Waters (Hervey Bay) Whale Watch industry should adopt a policy of net zero emissions as soon as possible and promote net zero emissions to the Hervey Bay Community and Whale Watch visitors.

18 - 'What's in Whale Watching for Butchulla Peoples'?

During a speech at the World Whale Conference held in Hervey Bay in 2019, Uncle Glen Miller, President of the Butchulla Men's Business Aboriginal Association, posed the question "What's in Whale Watching for the Butchulla Peoples?" Consequently, participation of Butchulla Representatives in the processes of the Hervey Bay WHS Steering Committee is vital to ensure proper respect for Butchulla Culture, Traditions, and recognition of Butchulla Elders past, present and emerging. Butchulla affairs in the Wide Bay Region are presently divided between two organisations: Butchulla Aboriginal Corporation (BAC) and Butchulla Native title Aboriginal Corporation (BNTAC). Negotiations are in process, to either appoint a single Butchulla Representative on behalf of both organisations and/or, a Butchulla Representative from each of the organisations.

It was recently announced by the Queensland Government that the World Heritage Area within Great Sandy National Park which is centred on Fraser Island, along with the surrounding waters and parts of the nearby mainland, was renamed K'gari - the original Butchulla people's name for the island, meaning 'Paradise', see:

https://statements.qld.gov.au/statements/93269 .

Recommended Action - 19: Finalise Butchulla representation on the Hervey Bay WHS Steering Committee.

Recommended Action - 20: Adopt the Butchulla names in K'gari Waters (Hervey Bay) Whale Watch Fleet literature and advertising.

19 - Funding of WHS Steering Committee Action Plan and Five-Year Strategy

Between 2007 and 2018 the Hervey Bay Whale Watch Industry paid the Queensland Government $1.5 Million in Marine Park (Whale Watch Permit) fees. Moreover, the Hervey Bay Whale Watch Industry contributes significantly to economic activity in the Wide Bay Region. The Fraser Coast Regional Snapshot reported that in the three years ending December 2020, tourist visitors to the region contributed $325.9 million, an average of $108 million per annum, to the local economy; with a significant proportion being generated by 'Nature Tourism'. Covid impacts and closed Australian and International borders during 2020 and 2021 caused a severe contraction in domestic and international whale watch visitors to the region (see attached whale watch visitor numbers 1989-2021). The five-year action plan and strategy presented in this report will directly contribute to:

- By taking full marketing advantage of Hervey Bay being accredited the 'World's First Whale Heritage Site'; rapid recovery of the numbers of Australian and International whale watch visitors and nature tourism visitors to the Wide Bay region, following post Covid reopening of borders. Potentially up to a further 40,000 + Whale Watch visitors per annum, realizing around $5 million plus revenue per annum to Wide Bay Region.
- Consolidation of Hervey Bay's status as 'World's First Whale Heritage Site' through implementation of 'World's Class' accreditation and training programs for Whale Watch Interpretative Guides, Whale Watch Vessel operators. Flow through of Regional, Social and Economic benefits from expansion of 'nature tourism' throughout the year. Support of implementation of $50 million 'Marine Experience and Research Centre' at Urangan Harbour, under development through Fraser Coast Council. Creating educational and job opportunities for young people in the Wide Bay Region.
- Creating education and job opportunities in Whale Watch Industry for Young Butchulla people in Wide Bay Region.

To fully implement the twenty-three recommendations in the five-year strategy the Hervey Bay Whale Heritage Site Steering Committee seeks funding of $1.25 million over the five years 2022-2027. Funds will be sought from Queensland Government from derived from funding provided to the States through the Federal Governments $75 million Tourism Recovery Covid funding.

Recommended Action - 21: Negotiate a five-year funding package to fully implement the Hervey Bay Whale Heritage Site (WHS) Steering Committee five-year action plan and strategy and full implementation of the twenty-three recommendations. The funds to be administered through Fraser Coast Tourism and Events and managed and allocated by the Hervey Bay WHS Steering Committee.

20 - Drs Trish & Wally Franklin - Body of Scientific Work

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