Information Bulletin of Geotourism Australia[1]

Geotourism, GeoRegions, Geotrails, and Geoparks
A Regional Development Opportunity for Australia

Purpose

This briefing provides background information to assist state and local government agencies in assessing the potential for the development of major geotourism projects (including geotrails and geoparks) within identified and approved GeoRegions of Australia.

Current Status

The Australian Geoscience Council Inc (AGC) is the Peak Council of geoscientists in Australia. It represents eight major Australian geoscientific societies with a total membership of over 8,000 individuals comprising industry, government, and academic professionals in fields including geology, geophysics, geochemistry, mineral and petroleum exploration, environmental geoscience, geotourism, hydrogeology, geomorphology, and geological hazards.

A National Geotourism Strategy (NGS) was launched by the AGC on 7th April 2021 following a period of strategic policy development by an appointed Reference Group https://bit.ly/34IfCjq To date, seven key strategic goals have been implemented by a series of working groups that are being directed by a Steering Committee which includes Chairman Dr Jon Hronsky OAM, Immediate Past Chairman of the AGC, the seven working party chairs (refer **Appendix A** and link below), as well as representatives of three key constituency groups (i.e., Dr Sandra Close representing Mining Heritage, Haydyn Bromley representing Aboriginal Perspectives, and Dr Peter Mitchell OAM representing environmental sciences and communities. https://bit.ly/3yWex5u

The NGS is being implemented to support the orderly development of major geotourism projects and activities in line with overseas trends and domestic regional development imperatives. The AGC sees the articulation of a strategy with a staged and incremental approach as being essential to gain government endorsement at all levels. The development of a National Ecotourism Strategy in 1994 and subsequent state/territory-based initiatives is considered as a particularly useful precedent and guide. Of significance internationally is the development of geotourism in Australia that lags many countries' approaches, notwithstanding the fact Australia has taken the initiatives in several areas in development of the concepts underpinning geotourism.

[1] Geotourism Australia is a wholly owned entity of the Australian Geoscience Council Inc.

Over the past three years the NGS has made considerable progress in all areas embraced by these strategic goals, not only the issue of resolving the geopark impasse. Notwithstanding this success, the NGS Steering Committee has recognised that a number of challenges need to be addressed. These include the following.

1. To position far more effectively in the minds of the geoscience profession that the outcomes of the NGS are leading to geotourism being accepted as a growing area of geoscience field of expertise, both here in Australia and overseas.

2. To determine a placement for geotourism development within a vehicle that will extend beyond the life of the NGS.

To address these challenges, the AGC Executive has approved a recommendation of the Steering Committee that it (and all participants currently registered as working group participants) be constituted within a newly branded grouping within AGC to be known as Geotourism Australia using the current structure and relationships with the AGC. In short, all working group members can consider themselves an integral part of the newly branded entity. This decision was announced at the AGM of the AGC on 4th April 2024.

On this basis, it has been agreed that no changes will be made to responsibilities and roles, although it is recognised that this change provides for an opportunity to create new pillars of activity that have arisen from the NGS outcomes so far. It is also agreed that Geotourism Australia will be accessed through the Internet through the domain www.geotourismaustralia.org.au

The NGS has recognised that geotourism adds considerable content value to traditional nature-based tourism (the primary motivator of travel to Australia) as well as cultural tourism, inclusive of Aboriginal tourism, thus completing the holistic embrace of 'A' (abiotic – sky, climate, landscape, and geology) plus 'B' (biotic – flora and fauna) plus 'C' (culture) aspects. Geotourism has been defined as 'tourism which focuses on an area's geology and landscape as the basis for providing visitor engagement, learning and enjoyment', but it is not a niche market. It has links with adventure tourism, cultural tourism, ecotourism, astrotourism, and agritourism, but is not synonymous with any of these forms of tourism, although in broad terms it embraces them all because it is essentially 'place based.' Geotourism embraces ecotourism, because the latter is practised in protected areas such as national parks whereas geotourism is undertaken in all areas, including places where primary industry activities are being undertaken, and in areas with Aboriginal land tenure.

The pursuit of geotourism offers the potential for new industries and employment opportunities through the development of major projects within Australia. Also, very significantly from a strategic perspective, the AGC recognises that the development of geotourism may be one of the best ways to communicate the value of geoscience to the broader Australian community. The AGC considers that this improved profile for geoscience is likely to have a positive impact in other areas of strategic importance, most notably the need for continuing tertiary enrolments in geoscience, which is required to meet Australia's needs for highly qualified geoscience graduates and researchers into the future. The AGC noted that the University of Newcastle announced it will no longer be offering a geology major from 2021. This is an outcome of the Australia-wide decline in students choosing to major in geology and opting for other study pathways within environment and science. Geotourism may be an effective way to help reverse this trend by making geoscience a greater part of the lived experience for typical Australians.

By way of comparison, the evidence from a 2012 study in Ireland demonstrated that the geotourism and geoheritage sector was considered a major contributor to the Irish economy, with total revenues (visitor expenditures) directly attributable to this sub-sector amounting to over €370 million in 2016, while the sector, directly contributes almost €240 million to Irish economy GVA/GDP. The sector supported 8,767 FTEs on an

economy-wide basis, as well as €415 million in GVA and over €660 million in output (Source: An Economic Review of the Irish Geoscience Sector prepared by Indecon International Economic Consultants).

The benefits of geotourism development in Australia are many.

Tourism Industry development benefits in the context of addressing the current COVID-19 pandemic can be realised through the holistic approach of geotourism which enhances the value of traditionally structured, nature-based tourism by generating new product development (i.e., including geology, landscape, flora, and fauna, as well as cultural heritage attributes, both Aboriginal and post European settlement).

Employment benefits through the adoption of a strategy to support and promote geotourism include the following, all of which have the potential to significantly improve Aboriginal employment, and more broadly, regional employment.

- New domestic employment and consulting opportunities for natural/cultural heritage professionals – design of interpretation signage/boards, design of geotrails etc.
- Management roles in geoparks and mining parks, regional development, and local government agencies.
- Flow-on employment in tour operations and townships resulting from increased tourism visitation.
- Opportunities for pastoralists to develop 'farm stay' and 'station stay' tourism operations.

Societal benefits for local communities, particularly in rural and regional Australia, include the following.

- A mechanism for celebrating and raising awareness of mining heritage, past and present.
- An opportunity to enhance community engagement and build value into Environmental, Social, and Governance (ESG) considerations.
- By celebrating geological heritage, and in connection with all other aspects of the area's natural and cultural heritage (and most significantly, Aboriginal heritage), geotourism enhances awareness and understanding of key issues facing society, such as using our Earth's resources sustainably.
- By raising awareness of the importance of the area's geological heritage in society today, geotourism gives local people a sense of pride in their region and strengthens their identification with the area.
- The strategy acknowledges the need to protect the scientific and cultural sensitivity of some geoheritage and geosites, and to ensure protection from geotourism where appropriate.

In summary, the over-riding socio-economic benefits of geotourism are measurable economic outcomes through enhancement of traditional nature-based tourism - additional visitors, direct and regional economic output, household income and wages, and local (including Aboriginal) employment.

This strategy will support the economic benefit by:

- Establishment of a higher level of central coordination in areas of product development, travel and hospitality services, and tourism promotion, with a view to improving the overall visitor experience, consistency of the branding, and leading to an increase in visitor numbers.

- Maximisation of sustainable development and management of 'over tourism.'
- Establishment of a framework for focus on the 10 UNESCO Topics including culture, education, climate change, geoconservation etc.
- Maximisation of community engagement.

Geotourism can be readily delivered through the development of both 'geotrails' and 'geoparks' within identified GeoRegions.

Looking beyond the COVID-19 pandemic, discernible changes in visitor needs and behaviors are starting to emerge. e.g.

- An increased interest in nature-based activities, evidenced anecdotally from observations in overseas geoparks.
- A shift from large group to small (family) group tours and free and independent travelers (FITs).
- A move to patronising tourist destinations 'close to home.'
- An increased usage and dependence on the internet for purchasing and information gathering purposes.
- A higher level of interest by governments to create employment opportunities and to support regional tourism.

The consideration of well-considered proposals underpinning the NGS is timely and is likely to be well received by governments, the tourism industry, and regional communities across Australia https://bit.ly/37JSjrr as evidenced in the release in March 2022 of the Australian Government's THRIVE 2030 Visitor Economy Strategy.

Geotrails

A geotrail can deliver geotourism experiences through a journey underpinned by an area's geology and landscape. Geotrails are therefore best constructed around routes currently used by tourists i.e., geotrails should form logical journeys linking accommodation destinations where appropriate.

Geotrails can comprise roads, walking and biking trails, and disused railway easements. Geotrails should meld the geological heritage features of a region with a cohesive story and should incorporate and package in the biodiversity and cultural components (including mining heritage) of the region through which the geotrail traverses. Geotrails do offer the advantages of having universal appeal, and do not compete with or impact on land management/access issues. They are easy to establish and represent a very cost-effective means of enhancing regional development.

They are also an effective vehicle for promoting broader community interest in Geoscience and recognition of it as one of the four fundamental sciences along with Physics, Chemistry and Biology. As such there are long-term educational and cultural benefits in fostering the appreciation of how our Earth influences landscape, ecology, and our lifestyles.

Western Australia's Mid-West Development Commission (MWDC) is working with seven shire councils to establish WA's first major geotourism development to be built on a geotrail model, focused on the Murchison GeoRegion of WA. The MWDC believes that the ancient Murchison geology provides the ideal platform for unique, nature-based tourism experiences of global significance, particularly to the 'experience seeker / dedicated discoverer' market. The Mid West Tourism Development Strategy (2014) concluded that the region's iconic nature- based tourist attractions were not developed to their potential and that its visitor appeal was not fully realised. The Strategy identified geotourism in the Murchison sub region as a potential 'game changing' tourism initiative, with capacity to help the region develop as a major tourism destination.

More information about geotrails is detailed in **Appendix B.**

GeoRegions and Geoparks

In Australia, creating a GeoRegion as a local initiative represents the first step in evaluating its potential development for major geotourism projects including its future potential elevation to a UNESCO-identified Global Geopark. A GeoRegion is therefore an area defined by a potential geopark proponent having ideally completed an approved tourism destination management plan. Embracing the GeoRegion designation means that the proponent now wishes to seek agreement from the State/Territory Geological Survey and other State-based entities or agencies to designate a defined area of natural and cultural heritage which highlights outstanding geological and geoheritage features.

More information about GeoRegions and Geoparks is detailed in **Appendix C.** Moreover, the encapsulating relationship between geotourism, GeoRegions and geoparks is summarised at https://bit.ly/49dwwoR and explained further in the link https://bit.ly/3O0gs1o

Geotourism attractions are now being developed around the world primarily as a sustainable development tool for the development of local and regional communities. A major vehicle for such development is through the concept of 'geoparks.' A geopark is a unified area with geological heritage of particular significance and where that **heritage is being used to promote the sustainable development of the local communities who live there.**

Unlike World Heritage Areas and national parks, geoparks can embrace both protected and any resource extraction areas, focusing on sustainable development objectives. Geoparks also focus on community engagement and ownership. In Australia, national parks focus only on biodiversity and often with insufficient attention given to geological heritage.

UNESCO Global Geoparks are single, **unified geographical areas where sites and landscapes of international geological significance are managed with a holistic concept of protection, education, and sustainable development.** Whilst World Heritage Areas and national parks are created in perpetuity, the status of global geoparks is reviewed by UNESCO every four years. A most helpful infographic about the UNESCO Global Geopark program can be sighted at https://bit.ly/3RzjxZ2

Whilst a geopark must demonstrate geological heritage of particular significance, the purpose of a geopark is to explore, develop and celebrate the links between that geological heritage and all other aspects of the area's natural, cultural, and intangible heritages. It is about reconnecting human society at all levels to the planet we all call home, and to celebrate how our planet and its 4,600-million-year long history has shaped every aspect of our lives and our societies. Geoparks are both a regional development concept as well as a branding tool. They achieve these goals through conservation, education and geotourism. **Geoparks can comprise both protected and non-protected areas and enable and celebrate sustainable development of primary industries such as mining, agriculture, and forestry.**

Geoparks can choose to evolve through a series of levels from 'aspiring,' 'national,' 'regional' (e.g., European or Asia-Pacific Regions) to 'global.'

On 21st February 2019, the fourth open session of the International Geosciences and Geoparks Programme took place in Paris and determined that the new aspiring geopark applications for the UNESCO Global UNESCO member countries are entitled to nominate a maximum of two applications per year. During 2017, two Pre-Aspiring Global Geopark proposals had been advanced in Australia by local government authorities in

Queensland (the Etheridge proposal) and in New South Wales (the Warrumbungle proposal). Under the UNESCO Global Geopark operational guidelines, applications are only accepted annually between 1 October and 30 November. Before any formal application can be made, the proponent of any UNESCO Global Geopark must submit an expression of interest, usually before the 1st of July, via the official channel as defined by the Australian National Commission for UNESCO or government body in charge of relations with UNESCO, involving, if applicable, a 'National Geoparks Committee'.

The Etheridge proposal was suspended because of community resistance to the concept of a geopark (perceived to be a mechanism for environmental protection) and the involvement with UNESCO (an international agency which is perceived to be implementing additional levels of environmental controls and influence). After considering the views of the Geological Survey of NSW (GSNSW), the Warrumbungle project Steering Committee decided to abandon plans to nominate for a UNESCO Global Geopark, and instead, accept the offer of the GSNSW to assist in developing an alternative geotourism strategy for the region focused on geotrail development https://bit.ly/3fc6lZs

In 2018, following consultations with the national government geoscience agency, Geoscience Australia, it was recognised that a national approach was needed to better manage major geotourism projects to maximise these indicative benefits and to take account of current perceived government and community group concerns.

Geotourism Projects and the National Geotourism Strategy (NGS)

The AGC has been of the view that the establishment of the NGS offered the best means of ensuring an orderly development of geotourism based on having first gained government support and endorsement, recognising that each state and territory has individual needs and priorities https://bit.ly/3yWex5u

After three years of successfully implementing key elements of the NGS, the AGC has decided to continue implementation through the establishment of a branded grouping to be known as Geotourism Australia.

The AGC also recognises that the Australian Government's THRIVE 2030 Visitor Economy Strategy (released in March 2022) sets out to assist the tourism industry and governments in setting a plan for sustainable long-term growth of the visitor economy over the next ten years. It is underpinned by a vision that delivers quality experiences for visitors, includes businesses that are globally competitive that are profitable, grow sustainably and providing jobs, growth and infrastructure that benefit Australian communities.

One of the key Actions (7.5) of this strategy is to 'grow and develop high-quality products and experiences around unique Australian locations and themes, including approaches which integrate sustainable nature tourism with economic opportunities for Traditional Owners, **and reflect emerging tourism trends such as geotourism**.' The AGC is pleased to see that the goals of the AGC's National Geotourism Strategy (NGS), launched just over two years ago, are complementary to this Action, and that there is recognition within the THRIVE 2030 Strategy for the need to integrate natural and cultural heritage. These are core to the design of geotourism offerings. The inclusion of a geotourism case study within the Strategy documentation – the NSW Glen Innes Highlands GeoRegion – represents a major step in formalising and advancing geotourism concepts.

Recommendation for Geopark Proponents

Australian Government Geoscience agencies have recently advised the AGC that while they support in principle the establishment of GeoRegions and geotrails, they are not able to endorse the UNESCO Global Geoparks currently. Moreover, in Western Australia, the State's Geological Survey has an approval role (under ministerial delegation) for any land tenure change across the State, and in this context does not support

Geoparks. The AGC will continue to work through the agreed process of GeoRegion establishment, particularly in other Australian States and Territories to gain government support for future geopark nominations.

It is therefore strongly recommended that geopark proponents, using the mechanism of 'GeoRegions', explore various alternative options for geotourism development, including a strong focus on the establishment of geotrails between sites of geological merit as interpretive sites, including robust geoheritage sites, some of which may already have been established as geological 'monuments' or recognised in state or national geoheritage registers. As a first step, a full audit of natural and cultural heritage attributes in the region as well as early discussions with state/territory based Geological Surveys, Planning and Environment agencies, and any other state/territory government agencies responsible for land and resource management is recommended. More details about GeoRegions are set out in guidelines as approved by government geoscience agencies, see **Appendix D.**

There are only three major geotourism projects with aspirations as potential future geoparks being developed in Australia within GeoRegions at present – Ku-ring-gai and Glen Innes Highlands in NSW, and areas (yet to be identified) within the Murchison GeoRegion in Western Australia.

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12 April 2024

Attachments to the Information Bulletin

Appendix A
Definition and Benefits of Geotourism

Geotourism is an established concept in many places around the world, especially Europe, North America, and China. Geotourism is defined by the US National Geographic Society (and updated by the Arouca declaration in 2011, as 'tourism that sustains or enhances the distinctive geographical character of a place—its geology, environment, heritage, aesthetics, culture, and the well-being of its residents'. Importantly, geotourism is heavily endorsed by UNESCO and supports a range of UNESCO Sustainable Development Goals. The Geological Society of Australia has defined geotourism as 'sustainable tourism which focuses on an area's geology and landscape as the basis for providing visitor engagement, learning and enjoyment.'

For further detail, also refer also to https://bit.ly/3O0gs1o

In summary, geotourism

- adds considerable content value to traditional nature-based tourism (the primary motivator of travel to Australia) as well as cultural tourism, inclusive of Aboriginal tourism, thus completing the holistic embrace of 'A' (abiotic – sky, climate, landscape, and geology) plus 'B' (biotic – flora and fauna) plus 'C' (culture) aspects. It emphasises an approach of increasing interest to protected area managers, particularly given the experience gained from the now discontinued Australian National Landscape Programme (refer **Appendix E**);
- celebrates geoheritage and promotes awareness of and better understanding of the geosciences - of increasing interest to geological survey organisations;
- contributes to regional development imperatives in areas experiencing social and economic difficulties through increased tourist visitation, particularly from overseas – of increasing

interest to local government authorities (LGAs) and state based, regional development commissions and agencies;

- creates professional and career development for geoscientists – of particular interest to the AGC and constituent member societies;
- provides a means of highlighting and promoting public interest in mining heritage – of particular interest to The Australasian Institute of Mining & Metallurgy (The AusIMM), the Sydney Minerals Exploration Discussion Group (SMEDG), the Australasian Mining History Association (AMHA) and the Australian Institute of Geoscientists (AIG);
- provides the means of increasing public access to geological information through a range of added information and communication technology (ICT) driven applications e.g., smartphones, drones, 3D visualisation, augmented/virtual reality etc. – of increasing interest to geological survey organisations and visitor information centres; and
- engenders an increasing awareness of the importance in geology as a fundamental science that has had and will continue to have major impacts on civilisations.

Geotourism promotes tourism through visits to geological features (geosites), use of 'geotrails' and viewpoints, guided tours, geo-activities (such as geological time trails, fossil walks, rock gardens etc.), and patronage of visitor centres and museums. Geotourism attractions are now being developed around the world primarily as a sustainable development tool for the development of local and regional communities.

In 2013 a 'proof of concept' project promoting geoscience awareness on the Sapphire Coast of New South Wales was launched. GeoTreat, a smartphone-based application, brought to life some 19 geosites forming part of a key 'geojourney' along a section of the coastline south of Narooma and extending into Victoria (a national landscape region known as 'Australia's Coastal Wilderness').

Also, in 2013, Cartoscope Pty Ltd, an NSW tourism publication company with links to the mining and exploration industry, received a TQUAL Grant under the Tourism Quality Projects program. This grant from the Department of Resources, Energy and Tourism supported innovative, sustainable, and high-quality tourism projects and enabled Cartoscope to produce some 100,000 copies of a NSW Geotourism map identifying some 96 sites in NSW which are significant geological sites, museums, or tours. There are short descriptions of the geology with map references and location flags on the map so the sites can be easily found. Both public and school-teacher responses to the geotourism map and the media publicity has been positive and has well exceeded expectations to the extent that a second edition (with a further 150,000 copies) was published and launched in 2018, and which received significant sponsorship from the NRMA, the AGC, the Geological Survey of NSW, various professional societies, Geoscience Australia, several Local Government Authorities amongst other sponsors.

Signature Experiences

Tourism Australia is currently marketing Australian tourism destinations through a program focused on 'signature experiences.' These include (from a geotourism perspective) biotic experiences such as 'Australian Wildlife' and cultural experiences such as 'Cultural Attractions' and 'Discover Aboriginal Experiences' as well as four activity-based experiences (i.e., fishing, golfing, wine tasting, and iconic walks) and one hospitality experience focused on luxury lodges. Abiotic experiences such as 'GeoRegions' have been overlooked despite the fact that the 2017 report 'Unlocking Our Great Outdoors' of the Tourism and Transport Forum (TTF) https://bit.ly/2WgeNLb indicated that international visitors to Australia are increasingly engaging in holistic nature-based tourism i.e., geotourism. This TTF report also highlighted the potential of 16 identified major landscapes developed by Tourism Australia and Parks Australia as the Australia's National Landscapes

Programme. Many of these landscapes offer the opportunity for particularly younger free and independent travellers (FITs), increasingly ‘digital natives,’ eager to undertake a geotourism experience obtained through adventurous self-drive tours.

These signature experiences are being targeted at niche audiences and offers the opportunity for the emergence of specific geological experiences such as the exposure of fossils, particularly high-profile species such as dinosaurs which are of course of specific interest to family groups, and specialised palaeontologists. If these signature experiences are developed within a geotourism framework, visitors of all ages will be able to enjoy and learn more about the holistic natural heritage (i.e., the landscape, the flora and fauna, as well as the cultural stories of the Country) within the ‘place’ in which these signature experiences are located.

In this regard, the THRIVE 2030 Visitor Economy Strategy (Action 7.5) recognises the value of emerging tourism trends such as geotourism in growing and developing high-quality products and experiences around unique Australian locations and themes, including approaches which integrate sustainable nature tourism with economic opportunities for Traditional Owners.

Dinosaur and other fossil attraction sites (including of course fossil/natural history museums) are now being developed right across Australia, with excitement emerging within a cluster in North-Western (Riversleigh World Heritage Site) and several sites in Western Queensland, Victoria (several locations), New South Wales (sites and museums), Western Australia, and not forgetting the Ediacaran assemblages which are highlighted in the Flinders Ranges World Heritage Area Nomination.

Many of these sites are, and can be further linked, within a network of geotrails, accessing the best of digital technologies that can enhance the visitor experience, an aspiration of the THRIVE 2030 Visitor Economy Strategy Action 7.7 and complementing Goal 1 of the NGS.

Astrotourism and ‘Sky Country’

in recent years, the concept and attraction of astrotourism has blossomed in many parts of outback Australia, particularly in WA, the NT, SA, and NSW (and emerging in Victoria) as many tourists flock to destinations which offer the opportunities to experience the 'Milky Way' with the benefit of crystal-clear skies. In many respects, astrotourism can be considered as one component of the holistic geotourism approach which is designed to 'maximise tourism benefits for a destination community, minimise negative impacts, and build a responsible tourism strategy that celebrates and builds on a sense of place.'

However, 'the place' which is subject of most astrotourism is the same 'Milky Way' viewed from different localities from East to West across Australia. Researchers have uncovered fascinating examples of Indigenous 'star knowledge' relate to seasonal conditions, planting schedules, animal behaviour, and symbolically to features of landscape of the place in which Aboriginal people actually live. It could be argued that an Aboriginal perspective of the night sky could be of more value to fulfil the geotourism experience of the place being visited than a standard scientific view of the heavens, located many light years away. Clearly, tourism operators in Australia should engage with Aboriginal specialists to ensure that their perspective becomes a major feature of the astrotourism experience.

Evolution of the National Geotourism Strategy (NGS)

The AGC has seen the articulation of a strategy with a staged and incremental approach as being essential to gain government endorsement at all levels. The NGS also acknowledged the need to protect the scientific and cultural sensitivity of some geoheritage and geosites, and to ensure protection from geotourism where appropriate. In 2020, the AGC set up a NGS Reference Group that included representatives of other key active stakeholders (e.g., the Geotourism Standing Committee of the GSA, The AusIMM, and the AIG), and under the guidance of this reference group, it was considered that other key stakeholder groups would be best placed to help deliver different parts of the NGS, which was launched in April 2021. https://bit.ly/3yWex5u

Seven key strategic goals are now being implemented by a series of teams under the direction of a formalised AGC Steering Committee.

1. **DIGITAL TRANSFORMATION – the assessment and promotion of new digital technologies** (e.g., delivered through smartphones and in visitor interpretation centers – 3D visualisation, AR & VR) as a cost-effective means of better accessing, communicating/interpreting content for travelers.
Working Group Chair: Mark Williams E: mark.williams@utas.edu.au

2. **GEOREGIONS AND GEOPARKS – to define an approval pathway for major geotourism projects.**
Working Group Chair: Angus M Robinson E: angus@leisuresolutions.com.au

3. **GEOTRAILS – to establish a framework for creating new geotrail development** – local, regional, and national engagement to open dialogue with existing walking, biking, and rail trail interest groups and operators to highlight the availability of quality natural heritage information.
Working Group Chair: David Robson, robodavidf@gmail.com

4. **GEOHERITAGE – to establish national criteria for geoheritage listings suitable for geotourism**.
Working Group Chair: Jason Bradbury, Jason.Bradbury@dpipwe.tas.gov.au
Refer Working Group report dated 28 November 2023 https://bit.ly/3NjMDco

5. **CULTURAL LANDSCAPES – to develop geotourism in regional mining communities with potential geoheritage and cultural heritage sites.**
Working Group Chair: Dr Melinda McHenry, melinda.mchenry@utas.edu.au

6. **INTERNATIONAL ENGAGEMENT – to strengthen Australia's international geoscience standing through geotourism excellence.**
Working Group Chair: Dr Young Ng, oz.geotourism@gmail.com

7. **GEOCOMMUNICATION – to develop and enhance the geoscience interpretation and communication skills of everyone actively involved in the presentation of geosites, enabling the provision of accurate and thematic information in an accessible manner.**
Working Group Chair**:** Heidi Allen, heidi.allen@dmirs.wa.gov.au

A key outcome of Goal One has already been achieved. A digital platform prototype has been developed, known as the *Australian Geotourism Discovery Portal*. This platform serves as an information hub for various user personas, enabling them to discover and explore a wide range of attractions and destinations across Australia. The portal, utilising the University of Tasmania's (UTas) ArcGIS Hub Solution platform, boasts a user-friendly interface and easy navigation. Users can explore the platform by state or GeoRegion, and each geosite, geotrail, mining site, or cultural site, is accompanied by detailed descriptions, photos, and available amenities. This allows travellers to gain a sense of what to expect before their visit. The platform is accessible through

desktop and mobile browsers, ensuring that travellers can plan their trips conveniently while on the go. Furthermore, the platform can potentially integrate with other travel tools, such as booking and transportation services, to offer a seamless travel experience. https://lnkd.in/ga4deQar The project is being developed through two phases.

Phase 1: Development of prototype and data ingestion workflow. Excellent progress has been made on this and the last part of this, the data ingestion workflows, are almost complete.

Phase 2: Populating the portal with data. During this phase, the platform will be made available to potential partner organisations and NGS stakeholders. Moving forward, the next steps involve aggregating data from diverse sources, including geological surveys, partner organisations, and public spatial repositories. This process poses a significant challenge and necessitates cooperation and support from multiple stakeholders. Subsequently, in 2024 an evaluation will be conducted to assess the prototype's suitability and effectiveness.

Launched on 19th January 2024, the *Glen Innes Highlands Skywalk* represents a demonstration of how combining technology, infrastructure, innovation, and creativity creates an immersive sensory experience that drives not only economic benefits through increased visitation and longer stays but social and wellbeing benefits for the local community.

The Skywalk, a boardwalk extending over 80 ms in length, provides visitors with spectacular views of the surrounding Glen Innes rural landscape and the township of Glen Innes. Overlooking the famous 'Australian Standing Stones' monument, it highlights both Celtic connections and Ngarabul Aboriginal culture.

The Skywalk is an exemplary world-class geotourism experience. The contracted production group (Naveze) has delivered 22 audio stories and 360-degree drone-captured footage with augmented reality integrated into a hyper-local mapping platform comprising three primary viewing points as well as points of interest further afield through the use of video footage. This footage, delivering the abiotic, biotic, and cultural stories, enables the visitor to place themselves virtually at those points of interest. Access to this digital information is obtained by using a smartphone to capture a QR code located on each of the three interpretation signs which are erected at these viewing points (refer picture of viewing platform one).

In developing the National Geotourism Strategy for Australia, the Australian Geoscience Council has recognised through the implementation of Goal One that geotourism maps, supplemented by publications, may well be eventually replaced by digital technologies (e.g., 3D visualisation, augmented reality, virtual reality, holograms, and live streaming using smartphones and drones) and GIS technologies as a cost-effective means of accessing and better communicating natural and cultural heritage content for tourists throughout regional Australia.

Two of the other Strategic Goals embrace outcomes that will require engagement with communities.

- Goal Two focuses on defining an approval pathway for major geotourism projects with three GeoRegion projects (Ku-ring-gai, Murchison, and Glen Innes Highlands) being included as project pilots.

- Goal Five focuses on developing geotourism in regional mining communities with potential geoheritage and cultural heritage sites, where surfaces are exposed by mining, and their recreational, educational, and cultural values can be realised. Goal Five also aims to draw attention to these places, and to the range of activities that could be conducted in these places. It is understood that the acknowledgement of Aboriginal cultural heritage beyond the benefits offered through geotourism includes the need to ensure it is appropriately protected.

This will ensure the preservation of Aboriginal cultural heritage is equally as important as that of mining and other aspects of cultural landscapes, thus leading to improving the public perception of mining professionals and the industries in which they work. One of the Goal Five projects is a proposed collaboration with the Victorian Goldfields World Heritage Bid (involving 15 Victorian Councils) to be positioned as a National Geotourism Strategy supported initiative, and in return for geotourism to be recognised as a key driver for regional development across the heritage mining sites of Central and NE Victoria. To further broader mining community understanding of the intent of Goal 5, geotourism concepts have been explained at conferences of the Australasian Mining History Association held at Atherton, Far North Qld in 2019 and at Burra, South Australia in 2022. https://bit.ly/3SuZ0Cy The development of geotourism is now also listed as a 'way forward' for communities facing mine closure in the Mine Closure Hub of the Sustainable Minerals Institute of the University of Qld https://bit.ly/3dEP9eS and through an established working relationship with EnviroMETS Qld https://bit.ly/49cIHm5

Discussions between the AGC and the GWG have continued, particularly since the launch of the NGS, with the objective of determining the extent of government endorsement and engagement during its implementation process. The GWG has recently nominated one of its members to help formulate a new National Geoparks Committee, a grouping that is planned to emerge as an important outcome of the NGS implementation process, particularly involving the current Working Group Two charged with the job of determining an approval pathway for major geotourism projects, noting that the level of commitment to any geotourism activity will by necessity vary between jurisdictions, and approval or endorsement of strategies by GWG cannot be binding on individual jurisdictions.

It has been agreed with GWG that the goal of any National Geoparks Committee that might be established in the future is to ensure the development of a policy framework that ensures that any Aspiring UNESCO Global Geopark nomination is based on an identified GeoRegion that embraces geosites where sites and landscapes of international geological significance can be managed with a holistic concept of protection, education, and sustainable development. It is understood that a GWG member will have a key role on any new National Geoparks Committee and that technical advice can also be sought from respective jurisdictions on geological matters where appropriate.

It was also significant to note that Geoscience Australia (the Australian Government geoscience agency) joined with the AGC in June 2021 in making submissions in support of geotourism to an Australian Government inquiry focusing on 'Reimagining the Visitor Economy. Moreover, the Geological Surveys of NSW, WA, and Tasmania have been proactive in encouraging the development of local and regional geotrail development. In South Australia, the geoscience community has worked closely with government agencies in developing a World Heritage Area nomination for the Flinders Ranges in recognition of outstanding geoheritage attributes.

It is hoped that the realisation of Goal Two of the NGS will continue to lead to an agreed pathway for consideration of and approval of major geotourism projects by governments at all levels.

Geotourism Resources

Further information about geotourism can be obtained at:

- Geological Society of Australia https://bit.ly/3C5U5Tt
- Geotourism Australia Resource Centre https://bit.ly/2uYaaGQ

Appendix B

Geotrails

A geotrail can deliver geotourism experiences anywhere through a journey linked by an area's geology and landscape as the basis for providing visitor engagement, learning and enjoyment.

At the SEGRA (Sustainable Economic Growth Regional Australia) conference convened in Bathurst in October 2015, the opening presentation by the workshop convenor and Geological Society of Australia (GSA) Geotourism Standing Committee Chair, Angus M Robinson, addressed the development of a formative Red Centre Geotrail of which Uluru is now a global iconic attraction. Dan Cove, formerly Operations Manager of Jenolan Caves explained how geotrails can offer genuine potential for both adding new dimensions to a regional visitor experience and as a tool for encouraging extended travel time within a region. In his presentation, Ian D Lewis, Honorary Director of the Kanawinka Geotrail, illustrated how the geopark promotes rural tourism and landscape care for the many volcanoes, famous caves, and coastline features across the area of Western Victoria and South-Eastern South Australia, encouraging visitors to select from several highway trails through the region via accommodation hubs. Ken Moule, then Chief Executive of Global GBM, showed how the contribution of technology to the tourism experience, opened the way for a new regional imitative 'around map enabled' mobile apps to economically promote attractions and enhance the visitor experience.

Phil Smart, President and Founder, Gondwana Coast Fossil Walk Inc. illustrated how, that in recent years, the geotourism potential of the Ulladulla rock platforms had been developed by his team of volunteers into a successful tourist attraction. His project, including the Brodie Park Geological Time Walk, was awarded in 2016 as the best tourist attraction on the NSW South Coast.

In summing up, the workshop convenor said that the concept of geotrails has provided an alternative and attractive approach to nurturing regional development by celebrating geotourism, geological and mining heritage. Geotrails can offer genuine potential by both adding a new dimension to a regional visitor experience and as a tool for encouraging extended travel time within the region.

The development of geotrails was also discussed at the Geotourism Workshop forming part of the Global Eco Conference of Ecotourism Australia held at Rottnest Island in November 2015 and the Geotourism Spotlight Session of SEGRA 2016 held in Albany, Western Australia.

Featured at the 2016 Global Eco conference, the West Coast 'Living Earth' GeoTrail https://bit.ly/2OKXYat a co-venture of Mineral Resources Tasmania, Department of State Growth Tasmania, and West Coast Council is currently undergoing continuing development with work directed at enhancing the quality of the interpretation. This geotrail, connecting the mining centres of Zeehan, Rosebery, and Queenstown, currently provides information to enable visitors to understand and appreciate the geological processes and landscapes which are featured throughout the geotrail. Each site has a roadside sign, either a large sign with information and explanations, or a small sign showing the relevant QR Code web-link to the Living Earth website. Tasmania also hosts the 'Created from Chaos' Coastal Geotrail in NW Tasmania https://bit.ly/2OEkC4t and the Furneaux Geotrail on Flinders Island https://bit.ly/3s4vjeM

All the presentations from all SEGRA and Global Eco conferences referred to in this report can be downloaded from https://bit.ly/2uYaaGQ

In New South Wales, the Ku-ring-gai GeoRegion geotrails in the northern suburbs of Sydney are being developed in a working partnership with the NSW National Parks and Wildlife Service and three local government agencies of Hornsby, Ku-ring-gai, and Northern Beaches.

Queensland's 'Dig The Tropic' https://bit.ly/3Sv5AZM is an operating example of a formative geotrail. Dig The Tropic is a themed journey linking the wonders of the Southern Great Barrier Reef with the mysteries of Queensland's Outback. Following the Tropic of Capricorn, visitors can experience a living museum created by ancient events left behind, visiting sites such as the Stone House Museum, Age of Dinosaurs Museum, Lark Quarry, the Sapphire Gemfields, Capricorn Caves, and the Great Barrier Reef.

Active geotrails proposals are continuing to be being implemented or considered by various government agencies and/or university groups in Western Australia (Murchison GeoRegion https://bit.ly/3pd6Aps, and John Forrest National Park Railway Reserve Heritage https://bit.ly/3LVWymo and Meckering Geotrails), Tasmania (as already identified), Queensland (Brisbane Valley Rail Trail, Dig the Tropics, Boulder Opal), New South Wales https://bit.ly/3xNrqA3 particularly Port Macquarie Coastal Geotrail – now completed https://bit.ly/3J6GbD, the Newcastle Coastal Geotrail https://bit.ly/3U2jbeH , Warrumbungle National Park Geotrails https://bit.ly/3fc6lZs , Central Darling River, the Muawintji National Park Geotrail https://bit.ly/3V6IEop and the proposed 'Wonder of Gondwana' geotrails across the Outback/Central West region – all under development), South Australia (various projects including the Brachina Gorge Geotrail and proposals for new geotrails in the Goyder/Burra region), Victoria (Kanawinka/Great Ocean Road area), and Norfolk Island.

In the Northern Territory, there two well defined trans-continental 'road adventures' exist as self-drive geotours. These are the Explorers Way extending from Port Augusta to Darwin, and the Savannah Way which passes East-West from Cairns to Broome through the Gulf Country, Katherine Region, Victoria River District, and Kimberley. In addition, the Red Centre Way (formative Red Centre Geotrail) is under proposed reconstruction with government funding. A fourth major geotrail is the unsealed, 'Gold Rush Way' linking the historic Arltunga and Halls Creek (WA) gold fields via the Tamani region – a known and active gold producing area. A local geotrail has recently been completed in Darwin and a geotrail is currently being developed at Pine Creek.

The world-famous Larapinta Trail, which straddles the strike length of the formations and intrusions forming the ridges of the magnificent Central Ranges landscapes has been effectively upgraded as a geotrail with the publication in 2023 of a geological field guide authored by Dr Anett Weisheit. This publication also includes reference to the extensive flora and fauna and Aboriginal cultural attributes, which when combined with the more recent history of the Telegraph Station (marking the original site of the first non-Aboriginal settlement in Alice Springs) all add to a holistic understanding of this place, the country of the Western and Central Arrernte people. This work was published and part-funded by the NT Division of the GSA, matched by generous sponsorship from the Australian Geoscience Council (AGC) and Leisure Solutions® with support from commercial organisations, not-for-profit clubs, and private donors.

There are also a wide range of smaller, dedicated journeys along walking tracks, old rail easements etc. being deemed suitable for development as geotrails in NSW, Tasmania, Qld, WA, Victoria, and SA. https://bit.ly/3SaHFiu

NSW's 'Modern Mining Trail' concept https://bit.ly/3IinPgn represents another formative geotrail example. This is a unique opportunity to travel through Central NSW on the Modern Mining Trail and explore Australia's mining – past, present, and future. The Modern Mining Trail incorporates Parkes, Blayney, Orange, and Cobar regions through their Visitor Centres, featuring the following modern mines: Northparkes Mines, Newcrest's Cadia Valley Operations, Peak Gold Mine (Cobar), Peak Hill Open Cut Experience, Evolution Mining at Cowal, and Great Cobar Copper Mine. The Modern Mining Trail region is also home to several tourism experiences that have linkages to the history of mining and the role that modern mining plays in communities today. Attractions include the Henry Parkes Centre, the CSIRO Parkes Radio Telescope, Peak Hill Open Cut Gallery

and the Big Fish Fossil Hut, Age of Fishes Museum, Canowindra, the Golden Memories Museum in Millthorpe, West Wyalong's Barmedman Mineral Pool, West Wyalong Heritage Museum and the Bland Shire Heritage and Gold Tour, the Great Cobar Heritage Centre and associated Miner's Heritage Park and Heritage Walk. It is hoped that as part of the tourism destination planning currently in progress, these attractions may be consolidated into a proposed 'Gondwana' trail.

The mining company MMG is also developing geotourism experience at its Hercules Mine at Rosebery in NW Tasmania and has employed a geotourism graduate to undertake this work. At Bulga in the NSW Hunter Valley, Glencore has established the *Minimbah Teaching Place* facility for people to learn and celebrate local Aboriginal people. To supplement this facility, the company supported by Singleton Council plans to develop a discovery trail between the villages of Bulga and Broke.

Goal Three of the National Geotourism Strategy aims to establish a framework for creating high quality, sustainable geotrails within Australia with an 'Inventory of Geotrails for Australia' https://bit.ly/3DJllby documenting a considerable listing of projects. These geotrail projects comprise various geosites/geotourism sites being connected into a journey linking geology and landscape destinations. They are being designed to have universal appeal with safe access, are easy to establish and represent a very cost-effective means of enhancing regional development.

Working Group Three has recently released a set of guidelines for sustainable geotrail development https://bit.ly/3J7s6FA

Appendix C
GeoRegions and Geoparks

In Australia, a 'GeoRegion' can be considered a defined area of natural and cultural heritage which highlights outstanding geoheritage features within which geotrail and geopark projects can be developed for approval by governments.

On the world stage, 'UNESCO Global Geoparks are single, unified geographical areas where sites and landscapes of international geological significance are managed with a holistic concept of protection, education, and sustainable development. Their bottom-up approach of combining conservation with sustainable development while involving local communities is becoming increasingly popular.'

Geoparks have been established to create enhanced opportunities for the people who live within their boundaries and foster economic benefits for them, usually through the development of sustainable tourism. Geoparks stimulate economic activity and sustainable development through geotourism (holistic, nature-based, and cultural tourism that focuses on an area's geology and landscape as the platform for providing visitor engagement, learning and enjoyment). By attracting an increasing number of visitors, a geopark fosters local socio-economic development through the promotion of a quality label linked with the local natural and cultural heritage. It encourages the creation of local, innovative enterprises and cottage industries involved in geotourism and geologically inspired products.

Geoparks also focus on community engagement and ownership. In Australia, national parks focus only on biodiversity and often with insufficient attention given to geological heritage. Geoparks are both a regional development concept as well as a branding tool. They achieve these goals through conservation, education and geotourism. Unlike World Heritage Areas and national parks, geoparks can comprise both protected and non-protected areas and enable and celebrate sustainable development.

Geoparks seek to conserve significant geological features and explore and demonstrate methods for excellence in conservation and geoscientific knowledge. This is accomplished through protected and interpreted geosites, museums, information centres, trails, mine sites, guided tours, school class excursions, popular literature, maps, educational materials and displays, and seminars. Geoparks are capable of being community driven. The geopark concept is an iconic one, applicable across all continents.

The establishment of geoparks should be based on a strong concept, political will with financial long-term support, and professional management structures. Hence, it is essential that, prior to the creation of a geopark, there should be comprehensive and exhaustive discussions with the community, researchers, and government agents to search for a common impetus. Geoparks can bring a new combination of social, economic, and environmental information to the political table. Geoparks cannot be simply traditionally protected nature areas for teaching and appreciating their geological components with just sustainable development in mind. The geopark's mission is to be something new and different.

Whilst a UNESCO Global Geopark must demonstrate geological heritage of international significance, the purpose of a geopark (at all levels including national and local) is to explore, develop and celebrate the links between that geological heritage and all other aspects of the area's natural, cultural, and intangible heritages. A geopark uses its geological heritage, in connection with all other aspects of the area's natural and cultural heritage, to enhance awareness and understanding of key issues facing society, such as using our earth's resources sustainably, mitigating the effects of climate change and reducing natural disasters-related risks. Geoparks give local people a sense of pride in their region and strengthen their identification with the area.

'State' based National Geoparks

As an option, State/Territory governments are already empowered to approve the designation of identified areas as 'National' Geoparks under their existing statutory framework, because the proposed creation of a 'National' Geopark does not require any protective measures other than those already in existence to provide for both protected and unprotected areas, as appropriate. As would apply for a UNESCO Global Park, any designated 'National' Geopark would need to be managed by an incorporated entity (local or state government created, community trust, association established under state government legislation etc.)

UNESCO Global Geopark Concept

Geoparks can choose to evolve through a series of levels from 'aspiring,' 'national,' 'state,' 'regional' (e.g., European or Asia-Pacific Regions) to 'global.' There are now hundreds of geoparks around the world. Support to individual geoparks is offered through the Global Geoparks Network Bureau which is currently representing 213 members from 48 countries. The original target of the Global Geoparks Network is establishing 500 geoparks around the world. The number is growing at a rate of about 10 new global geoparks per year.

In China, there are three levels of geoparks: provincial, national, and global geoparks. They are all managed by local county or municipal governments under the direct supervision of the Ministry of Land and Resources. Currently, there are over 320 provincial geoparks (originally labelled as 'scenic areas') in China, among which 200 have already gained national status. With 47 of these now designated as global geoparks (including Hong Kong Geopark) having acquired this status, China manages by far the largest number of global geoparks in the world.

UNESCO member countries are entitled to nominate a maximum of two applications per year. Under the UNESCO Global Geopark operational guidelines, these applications must be made through the official channel of the UNESCO representative in the member country. The New Zealand National Commission for UNESCO has already announced the establishment of a UNESCO Global Geoparks programme in New Zealand and has

appointed a Geoparks Expert Advisory Panel to encourage and support New Zealand nominations for UNESCO Global Geopark status. One Aspiring UNESCO Global Geopark nomination (Waitaki Whitestone) has been formally evaluated and approved by the UNESCO Global Geopark Council which was approved by the UNESCO Global Geopark Council in 2023.

The Global Geopark brand is a voluntary, quality label and while it is not a legislative designation, the key heritage sites within a geopark should be protected under local, regional, or national legislation as appropriate. UNESCO offers support to Global Geoparks on an ad-hoc basis via requests from Member States. Geopark status at any level, including 'global' does not imply restrictions on any economic activity inside a geopark where that activity complies with local, regional, or national legislation. The focus of geoparks is on promotion and appreciation of geological heritage, geology, and landscapes. These earth heritage sites are part of an integrated concept of protection, education, and sustainable development.

Whilst World Heritage Areas are created in perpetuity, the status of global geoparks is reviewed and renewed by UNESCO every four years. Even if an area has outstanding, world-famous geological heritage of outstanding universal value, UNESCO has determined that it cannot be a UNESCO Global Geopark unless the area also has a plan for the sustainable development of the people who live within it. To succeed, a UNESCO Global Geopark nomination, lodged by an appropriately incorporated management body, must have the support of local communities. Prior to a nomination being lodged, evidence must be demonstrated of geotourism activities being undertaken by a management authority (e.g., a national park agency) over a period of at least 12 months to establish credibility as a 'defacto geopark'.

There are six Global Geoparks in Europe that are geoparks specifically because of their mining history, and that mining continues in some of these territories. For example, in the Marble Arch Caves Global Geopark (Ireland), there are many quarries – dolomite, limestone, cement factory, and there is active exploration for shale gas, which would need to be extracted by fracking technologies. All these operations are undertaken in compliance with Irish legislation from both jurisdictions in the country. In Gea Norvegica Global Geopark (Norway) are located large larvakite quarries which export polished ornamental stone all over the world. In Magma Global Geopark (Norway) one of their partners is Titania A/S which operates as a mining company extracting ilmenite in Norway for the European titanium pigment industry.

The Muskauer Faltenbogen / Łuk Mużakowa UNESCO Global Geopark comprises parts of the German Federal States of Brandenburg and Saxony as well as of the Polish Lubuskie Province. It has about 80,000 inhabitants living in three rural districts with 19 provincial towns and municipalities. The entire area of the Muskauer Faltenbogen / Łuk Mużakowa UNESCO Global Geopark, located across Germany and Poland, is geared to combine the principles of ecology, economy, and social interests. The principle of conservation of nature, cultural areas and of the post-mining landscape go hand in hand with the development of tourism and not only helped locals to enhance their identification with their region but also contributed to economic development. The selling points of the UNESCO Global Geopark are three-fold one of which celebrates the post-mining and cultural landscape inherited from 130 years of resource-based mining development between 1840 and 1970, inclusive of the Lusatia region in East Germany, an open cut lignite coalmining area under transformation. The Latrobe Valley coal mining region in Gippsland Victoria faces similar challenges, but at a much earlier stage of post mine-site development. These are the basis for a comprehensive educational concept which reaches from natural to human-induced climate change, use of raw material and later 're-naturalisation' of historical and recent mining districts.

In summary, a geopark achieves its goals through conservation, education, and tourism. It seeks to conserve significant geological features and explore and demonstrate methods for excellence in conservation and geoscientific knowledge. This is accomplished through protected and interpreted geosites, museums, information centres, trails, mine sites, guided tours, school class excursions, popular literature, maps,

educational materials and displays, and seminars. Geoparks are capable of being community driven. Geoparks stimulate economic activity and sustainable development through geotourism. By attracting increasing numbers of visitors, a geopark fosters local socio- economic development through the promotion of a quality brand linked with the local natural heritage. It encourages the creation of local enterprises and cottage industries involved in geotourism and geoproducts. The geopark concept is an iconic one, applicable across all continents.

An application area for a UNESCO Global Geopark has no stipulated size but its geographical boundaries must clearly embrace a contained area of land (both protected and non-protected); with private landowners having the option of not allowing geopark activities on their land, should they choose not to participate. An application area can be as large as the boundaries of a local government area.

UNESCO approves a global geopark for an initial four-year period, at the end of which it is reassessed for revalidation purposes to establish that it has complied with all agreed requirements and the UNESCO Global Geopark Code of Ethics

The nomination procedure for UNESCO Global Geoparks requires the completion of a self-assessment document, https://bit.ly/3qW3t6d and the completion of a comprehensive application dossier. https://bit.ly/3sexUpd

Aspiring Geoparks

To qualify to be nominated as an **Aspiring** UNESCO Global Geopark, proponents must meet the requirements set out in the following Checklist https://bit.ly/3uedflb

It should be noted that this Checklist and its Explanatory Note are not statutory documents; they are designed as a quick and easy dashboard to measure the preparedness to apply and to establish qualification as an 'Aspiring Geopark' designation. They do not replace the application file and Form A (Self-evaluation Form).

History of Geopark Development in Australia

1. The Kanawinka UNESCO Global Geopark Impasse

Whilst the concept of geotourism was first discussed in Australia in 1996 at an annual conference of the GSA, Australia's first geopark, Kanawinka, was declared in 2008 after evolving from the development of a 'Volcanoes Discovery Trail' concept. This UNESCO approved geopark was formally announced in Australia at the Inaugural Global Geotourism Conference in Fremantle, Western Australia, in August 2008. The geopark (26,910 sq kms in area) featured recent volcanism extending from the Naracoorte Caves in South Australia into the Portland (Victoria) shoreline and north as far as Penola and Mount Hamilton. It represented the sixth largest volcanic plain in the world with some 400 eruption points. The geopark was located across the two Australian states of Victoria and South Australia and was embraced by eight LGAs.

However, the Kanawinka Geopark was unable to gain State and Australian Government approval that would have enabled UNESCO to assign 'global geopark' status on an ongoing basis. This situation was reaffirmed when Australian Government Ministers for the Environment and Heritage Council (EPHC) met in November 2009. Noting that the cited 'Resource Management Ministers' are advised by Geological Survey agencies, this Council decided that 'after consultation with Resource Management Ministers, whilst Australian governments support geological heritage, they had significant concerns with the application of the UNESCO Geoparks concept in Australia, especially without government endorsement. It was decided that existing mechanisms are considered sufficient to protect geoheritage in Australia.'

For reasons not made known publicly, 'the Council requested that the Australian Government advise UNESCO that Australia would not recognise the Kanawinka Geopark because of the deficient UNESCO process in declaring it. Council also requested the Australian Government ask UNESCO to take no further action to recognise any future proposals for Australian members of the Global Geoparks Network, or to further progress Geoparks initiatives within Australia, including that for the Kanawinka Geopark, unless the formal agreement of the Australian Government has first been provided.' In 2012, UNESCO had no other choice but to withdraw its Geopark designation for Kanawinka.

In recent years, the Kanawinka region has reverted to being developed as a series of linked geotrails with support provided by community groups and several of the LGAs, specifically the South Grampians Shire Council and the Mt Gambier City Council.

2. Overcoming Barriers to Geopark Development in Australia

In reflecting on the Kanawinka experience, back in 2008, and despite the lobbying efforts of the then Australian Geoparks Network, the concept of global geoparks was clearly not supported by government planning and tourism agencies; the concept did not fit at all well into the prevailing public land management arrangements administered by principally State/Territory Governments with full control of the use of 'crown land' for primary industry purposes and LGAs for control and zoning of private lands. Moreover, the concept was also not embraced or understood by the geological professions, hence there was no constituency support that could be translated into political lobbying. Historically, the principal focus of geological activity supported by professional societies has been directed at meeting the needs of the exploration and mining industries.

However, over a decade later, the pursuit of geotourism is now seen to offer the potential for new industries and employment opportunities through the development of major projects within Australia. As the peak council of geoscientists in Australia, AGC recognises that the development of geotourism may be one of the best ways to communicate the value of geoscience to the broader Australian community. The AGC considers that this improved profile for geoscience is likely to have a positive impact in other areas of strategic importance, most notably the need for continuing tertiary enrolments in geoscience, which is required to meet Australia's needs for highly qualified geoscience graduates and researchers into the future.

The history of geopark development in Australia has been detailed in an international journal paper published in 2022 https://bit.ly/3VDfXzy

As far as the tourism industry was concerned, geotourism was then simply written off as a 'niche' interest area for those visitors interested only in geology, rather than providing considerable content value to traditional nature-based tourism as well as cultural tourism.

Even ecotourism (as part of the nature-based tourism mix) was still a young history with then less than 20 years of development in Australia, as evidenced by the launch of a national ecotourism strategy in 1994. Moreover, ecotourism has developed over this period and to the present day with a focus on the biotic (flora and fauna) aspects of natural heritage visited in protected areas such as national parks. Even today, ecotourism enthusiasts still see geotourism as 'geological tourism' and find difficulty in accepting the holistic embrace of the geotourism experience. This situation has not been helped by the fact that most rangers employed in Australian national parks have not been trained in geosciences.

In addition, State/Territory Government Geological Survey organisations were not supportive of geopark development and geotourism with strongly expressed concerns about impact on access to land for exploration and mining, irrespective of UNESCO assurances that geopark development did not impact on these activities.

It was soon realised that several significant steps needed to be undertaken to gain constituency support for geopark development within a framework of establishing geotourism as a new industry for Australia.

In response to these developments, a geoparks representative body (known as Geoparks WA Inc) was established in 2018 with the principal object of 'supporting and promoting the development of geoparks, geotourism and geotrails in Western Australia'. Originally established in 2008, the Australian Geoparks Network was formally launched in April 2021 to provide some national focus to this lobbying objective.

3. Geological Community Engagement: The Geological Society of Australia and the Australian Geoscience Council (AGC)

In response to the Kanawinka experience, but also in recognition of overseas developments in geotourism and geoparks, the Governing Council of the GSA decided in 2011 to establish a formal Geotourism Sub Committee of its Geological Heritage Standing Committee. Later in 2014, Council established a separate Standing Committee focusing solely on geotourism, and over the following 12 months, arrangements were put in place to provide linkages with two other large professional societies with significant geological membership – the Australian Institute of Geoscientists (AIG) and The Australasian Institute of Mining & Metallurgy (AusIMM). The AusIMM subsequently provided staunch support for the concept of geotourism and geoparks in its submission to the draft Australian Heritage Strategy of the Australian Government in 2014.

Notably, one of the achievements of this initiating Geotourism Sub Committee was to obtain formal approval and adoption in Australia by the Governing Council of the GSA of a definition of geotourism. 'Geotourism is tourism which focuses on an area's geology and landscape as the basis for providing visitor engagement, learning and enjoyment'.

Moreover, the Geotourism Sub-Committee embarked on a campaign within the geological professional societies to promote the fact that geotourism is an emerging global phenomenon which fosters tourism based upon landscapes. It was explained that geotourism promotes tourism to 'geo-sites' and the conservation of geodiversity and an understanding of earth sciences through appreciation and learning, such learnings being achieved through visits to geological features, use of 'geo-trails' and viewpoints, guided tours, geo-activities, and patronage of geosite visitor centres. It was pointed out that 'geotourists' can comprise both independent travelers and group tourists, and that they may visit natural areas (including mining areas) or urban/built areas wherever there is a geological attraction.

In summary, the campaign emphasised that geotourism achieved the following outcomes.

1. Celebrates geoheritage and promotes awareness of and better understanding of geosciences.
2. Adds considerable content value to traditional nature-based tourism which has focused only on a region's biodiversity.
3. Provides the means of increasing public access to geological information through a range of new digital technology applications.
4. Contributes to regional development imperatives through increased tourist visitation, particularly from overseas.
5. Creates professional and career development for geoscientists.
6. Can provide a means of highlighting and promoting public interest in mining heritage.
7. Celebrates geoheritage and promotes awareness of and better understanding of geosciences.
8. Adds considerable content value to traditional nature-based tourism as well as cultural tourism, inclusive of Aboriginal tourism.

The Governing Council also decided that the principal purpose of the newly formed Geotourism Standing Committee was to provide advice to the GSA about how best geotourism can be advanced and nurtured in Australia with the following terms of reference.

- Promote tourism to geosites and raises public awareness and appreciation of the geological heritage of Australia including landforms, geology and associated processes through quality presentation and interpretation.
- Provide advice to the Governing Council about how best geotourism can best be nurtured throughout all areas of Australia, including within, but not limited to, the declared Australia's National Landscapes, World Heritage, and National Heritage areas as well as within National Parks and reserves, urban environments, and mining heritage areas.
- Review and recommend strategies that offer the potential for active participation of governments, land managers, tourist bodies and GSA members in geotourism and related interpretation activities.
- Undertake conference/symposium and seminar activities directed at raising awareness of geotourism amongst Society members and others.
- Foster the publication of content which serves to raise awareness and appreciation of geotourism amongst governments, land managers, the tourism industry, the geological profession, and the Australian public.

4. Engagement with Government Geological Survey Organisations

During 2016, the Geotourism Standing Committee commenced a dialogue with the then Chief Government Geologists Committee (now known as the Geoscience Working Group - GWG), a body representing all the state and territory geological surveys as well as the national Geoscience Australia agency. This dialogue was focused on explaining the principles of geotourism and delivery mechanisms such as UNESCO Global Geoparks and geotrails. In July 2017, this body responded to the Standing Committee, noting the following operating trends in Australia relevant to geotourism development.

- The considerable interest in promoting geoheritage for public information and increased tourism revenue in regional Australia.

- The significant efforts by individual State/Territory Geological Surveys and Geoscience Australia in promoting geoheritage by publishing books, pamphlets, GIS-based apps, erecting explanatory signage etc. describing sites and geotrails.

- Collaboration between State/Territory Geological Surveys, 'parks and wildlife' agencies, member-based geoscience organisations, tourism bodies, and LGAs or regional authorities in their jurisdictions to increase awareness of geo-and mining heritage generally and geoheritage sites, geotrails, and areas.

- Many geoheritage sites are contained within and protected by conservation reserves and some State/Territory Geological Surveys have established small geoheritage reserves to further protect important sites.

5. The National Geotourism Strategy and Proposed Geopark Development

As a response to the lessons learnt from the two attempts to gain support for geopark development (i.e., the Pre-Aspiring UNESCO Global Geopark projects), the Geotourism Standing Committee commenced discussions with Geoscience Australia to consider a new process for assessing and seeking community and government support for UNESCO Global Geoparks development in Australia.

In November 2018, following discussions held at the AGC Conference in October and in pursuit of its inclusion as a Geoscience advocacy opportunity under the then AGC 2015-2020 Strategic Plan, the AGC established a coordinating role with the objective of developing a draft National Geotourism Strategy under the umbrella of the AGC Advocacy Sub-committee. To accommodate the orderly development of major geotourism projects and activities in line with overseas trends and domestic regional development imperatives, the AGC saw the development of a national strategy, to be developed as a staged, incremental approach, as being essential to gain government endorsement at all levels.

It was envisaged that the NGS would support the economic benefit by:

- Leading to the establishment of a higher level of central coordination in areas of product development, travel and hospitality services, and tourism promotion, with a view to improving the overall visitor experience, consistency of the branding, and seeing an increase in visitor numbers.
- Maximisation of sustainable development and management of 'over tourism.'
- Establishment of a framework for focus on the 10 UNESCO Topics including culture, education, climate change, geoconservation etc.
- Maximisation of community engagement.

Through the efforts of Working Group Two (refer **Appendix A**), the NGS was designed to support the orderly development of major geotourism projects and activities in line with overseas trends and domestic regional development imperatives.

6. Engagement with the Tourism Industry through Ecotourism Australia Ltd and FACET.

Progress has also been made in gaining some support from the nature-based tourism operators. The peak nature-based tourism industry association, Ecotourism Australia Ltd (EA) established in November 2013 a new industry grouping, the Geotourism Forum, to advocate and nurture the development and growth of geotourism recognising that it is sustainable tourism with a primary focus on experiencing the earth's geological features in a way that fosters environmental and cultural understanding, appreciation, and conservation, and is locally beneficial. The purpose of the Geotourism Forum is to advise EA of how best geotourism can be advanced and nurtured having regard to the EA's interest in inspiring environmentally sustainable and culturally responsible tourism.

In late 2014, EA communicated with the Hon Greg Hunt MP, the then Australian Government Minister for Environment in response to his expressed need to understand better how a coordinated review of the opportunities that could be achieved through Australia embracing the concept of geotourism and the introduction of geoparks, as well as advice that could assist government in the delineation and assessment of geopark proposals. The Minister subsequently advised EA that, after reviewing the national policy UNESCO's Global Geopark Network, he was 'positively disposed' towards Australia joining this initiative subject to several funding conditions. The Minister also indicated that he needed to consider how best to progress Australia's involvement in this initiative having sought the views of state and territory environment ministers and the Australian Local Government Association.

The Geotourism Forum co-convened with the GSA Geotourism Standing Committee, a major geotourism workshop as part of the 2015 Global Eco conference held at Rottnest Island, Western Australia, at the 2016 Global Eco Conference held in Hobart, with another workshop held in Adelaide in 2017, and ensured several presentations on geotourism at the 2019 Global Eco conference held in Cairns in 2019. Geotourism was also featured at the 2020 Global Eco conference held in Margaret River, WA.

At the opening address to Global Eco 2018, Adelaide, in November 2018, the Hon Ian Hunter MLC, then SA Minister for Sustainability, Environment & Conservation, stated that "geotourism is (also) an emerging market that South Australia is especially well placed to cater for, with megafauna fossils at the World Heritage Naracoorte Caves, evidence of the world's earliest animals in the Flinders Ranges, and stunning geological formations in parks like the Gawler Ranges, Vulkathunha-Gammon Ranges, and the ice-age gem of Hallett Cove right on Adelaide's doorstep."

In May 2018, in association with Geoparks WA, the Forum Advocating Cultural and Eco-tourism Inc (FACET) convened an International Workshop in Perth that focused on the business of geotourism and geoparks.

The AGC has endeavoured to confer with Ecotourism Australia as well as Wildlife Tourism Australia and Australian Regional Tourism (the latter which is driving a national agritourism strategy) to review collaboration mechanisms for maximining value from the THRIVE 2030 Visitor Economy Strategy. Action 7.5 provides for 'growing and developing high-quality products and experiences around unique Australian locations and themes, including approaches which integrate sustainable nature tourism with economic opportunities for Traditional Owners, and reflect emerging tourism trends such as geotourism.'

7. Engagement with Local Government/ Regional Development Agencies through SEGRA

Geotourism has been featured at annual conferences of 'Sustainable Economic Growth Regional Australia' (SEGRA) since 2012; with the GSA Geotourism Standing Committee and the EA Geotourism Forum convening the inaugural geotourism workshop at the 2014 conference at Alice Springs in the Northern Territory. SEGRA 2015 was held in Bathurst, New South Wales, an event which saw the genesis of the Etheridge and Warrumbungle global geopark proposals. SEGRA 2016 was convened in Albany, Western Australia, at SEGRA 2017 in Port Augusta in South Australia, and at SEGRA 2018 in Mackay, North Queensland. In August 2019, SEGRA was held at Barooga in the NSW Riverina and arrangements were made by the GSA for the Geotourism Spotlight Session to be coordinated by the Geological Survey of NSW with a focus on 'public geoscience' outreach, of which geotourism is a key component. In 2021, SEGRA convened in Boulder- Kalgoorlie featuring a keynote address by NGS Chairman, Dr Jon Hronsky OAM https://bit.ly/3EuPZCT In September 2022, SEGRA was convened in Devonport, Tasmania and focused on the role of geotourism in delivering the THRIVE 2030 Visitor Economy Strategy. A SEGRA summit was held in Toowoomba, Qld in July 2023 and a further summit is planned for Busselton, Western Australia in October 2024.

8. Pre-Aspiring UNESCO Global Geopark Proposals in Australia

Pre-Aspiring UNESCO Global Geopark proposals have been to date projects in Australia deemed to have undergone assessment to obtain community and government support prior to any application being lodged with UNESCO.

The process of developing a Pre-Aspiring UNESCO Global Geopark involved an 'on ground' assessment of the feasibility of any proposal brought forward by any grouping including government agencies. With compelling regional development imperatives in mind, two such proposals, the Etheridge region of Far North Queensland (some 40,000 sq kms in area) embracing the entire Shire of Etheridge; and the Warrumbungle region embracing three Local Government Areas - Warrumbungle, Gilgandra, and Coonamble located in Northwest

NSW (some 27,000 sq kms in area) had been subject to intensive assessment during 2017, following advice submitted to the Secretary General of the Australian National Commission of UNESCO advising that the 'pre-aspiring' nomination process had commenced. Progress achieved for these projects was reported to the 7th Global Geoparks Network Conference held in the United Kingdom in September 2016 and at the 5th Asia Pacific Network Symposium held in China in September 2017.

Etheridge Pre-Aspiring UNESCO Global Geopark Proposal

For the Etheridge proposal, a highly knowledgeable Geoscience and Mineral Reference Group has undertaken a considerable amount of work in defining the international significance of this region located west of the Atherton Tablelands in Far North Queensland, identifying some 20 key geosites in addition to the existing tourism attractions of Undara Lava Tubes, Cobbold Gorge, and the Talaroo Hot Springs area managed by the Ewamian Aboriginal Corporation. In addition, the reference group has developed a sophisticated GIS map of the region with smartphone connectivity, as well as excellent geological content for the proposed Savannahlander rail geotrail. A heritage specialist has also generated a fascinating overview of the mining heritage of the region.

These events have contributed to a fascinating diversity of geology, mineral resources, and landscapes, which influenced the lives and customs of Aboriginal people and patterns of European settlement.

The assessment process included consultation with all key stakeholders (e.g., Aboriginal communities, national parks, tourism resorts etc.) undertaking individual self- assessments; consultation with key State Government agencies; and community consultation including information bulletins, public meetings involving Shire Councillors. The assessment identified the following natural and cultural assets.

- Geosites – In abundance with geosites readily accessible to the public. Two geological events of Cainozoic age now feature as iconic geotourism attractions in the region, the most significant of which is the Undara Lava Tube system unique in the world based on consideration of age, preservation, and lineal extent, as well as the geomorphological expressions within flat-lying sediments at Cobbold Gorge. Both landforms, as well as the other Proterozoic and Paleozoic landforms in the area proposed for the Global Geopark, have resulted in a diverse range of landforms with unique biodiversity characteristics including a rich assemblage of birdlife.
- 'Geo villages' – Four small townships, all with community engaged geosites (including agate, sapphire, and gold fields); key established ecotourism resorts of Undara and Cobbold Gorge; and the Aboriginal Talaroo Hot Springs tourism development.
- Geotrails – The Lava Tubes, Gems and Gorges Geotrail of the Savannah Way with connections to nearby mining heritage locations.
- National Parks – Undara Volcanic Park and four other park areas.
- TerrEstrial Mineral/Fossil Museum– the most significant mineral museum in Queensland.
- Many mining heritage sites, and small gold mining operations underscores Etheridge's status of one Australia's most diversified mineralised areas.

The geological (and natural and cultural heritage) assessment proved the easy part of the process. A short 12-month period allowed for the assessment and nomination completion process, a decision which proved to be far too short to gain full community support.

Whilst National Parks managers, Aboriginal representatives, and residents of townships were supportive, because they understand the economic benefits of tourism, agricultural and small-scale mining groups as well as gemstone fossickers were not supportive, with a vigorous program implemented to dissuade Council from

finalising the application. It was believed that the establishment of a Global Geopark upset the status quo. Issues raised were fears of UNESCO control, more environmental regulation, and increased levels of tourism. The labels of 'UNESCO,' 'Geopark,' 'Ecotourism' etc. raised a range of concerns and fears. Moreover, landholders, graziers with long-term pastoral leases, feared that the proposed UNESCO affiliation would result in further regulation and restrictions curbing current and future activities and potentially leading to a World Heritage Listing. Many considered that the large area of the application across the whole Shire included large land tracts which were considered unlikely to be of interest for tourism. The use of the term 'geopark' which was interpreted by many to imply some form of existing or potential environmental protection (aligned to an expanded, national parks network). There were also fears that the UNESCO branding would generate a response by the State Government to impose an additional layer of environmental protection, even though UNESCO Global Geopark status does not imply restrictions on any economic activity within a UNESCO Global Geopark where that activity complies with Aboriginal, local, regional and/or national legislation. These fears were also shared by some elements of the mining industry involved in small scale mining operations.

Facing strong opposition, the proponent Etheridge Shire Council, decided not to proceed with the UNESCO Global Geopark application, and instead to establish a stakeholder Geotourism Advisory Committee chaired by the mayor to advance geotourism using the natural and cultural assets that have so far been identified. An Alternative Geotourism Development Strategy for the Etheridge 'Scenic Area' (in effect, a GeoRegion) has now been approved by Etheridge Shire Council which is committed to developing tourism along with agriculture and mining as the three-fold basis of their forward regional development planning. https://bit.ly/2YYDFp7

The Strategy which captures the aspirations of the pre-existing 'Unearth Etheridge' tourism strategy, providing additional natural and cultural heritage content; and through collaboration with other adjacent Local Government Agencies, establishment of strong geotrail linkages with geotourism attractions outside of the Shire. This alternative approach focused on developing an expansive principal focus on key geotourism areas within the Shire of Etheridge but to create linkages with key attractions outside the Shire utilising dedicated geotrails.

Emulating a program being undertaken in the United Kingdom, it was proposed that a 'geo village' approach be adopted for the Shire of Etheridge, thus enabling individual townships to take unique ownership of any activity e.g., community operated museum which has a natural or cultural heritage characteristic. Two of the small townships (Mt Surprise and Forsayth) have strong associations with agates and gems, and another (Einasleigh) has a strong mining industry heritage. The main township, Georgetown, is the location of the TerrEstrial Centre mineral and fossil museum which might benefit from even a higher level of community involvement and the recently established Peace Monument has already made its mark.

Warrumbungle Pre-Aspiring UNESCO Global Geopark

In New South Wales, the Warrumbungle proposal focused on the Warrumbungle National Park, which was already included on Australia's National Heritage List, a fact which would pre-qualify the area as being of international geological significance. In July 2016, the Park was the first within Australia to be certified as a Dark Sky Park by the International Dark Sky Association. Regional Development Australia (RDA) Orana, the three Shire Councils, the NSW National Parks and Wildlife Service, the Sidings Springs Observatory, and local Aboriginal communities were identified as key stakeholders by a project Steering Committee chaired by the Mayor of Warrumbungle Shire Council.

This heritage listed Park extends over a rugged mountainous area of sandstone plateaux and ridges and many prominent trachyte spires, domes, and bluffs. The 233 sq kms of the park is part of the Warrumbungle Mountains, an eroded volcano of about 13-17 million years in age. In addition to its monumental scenery, the Park contains a varied complex of important plant and animal communities.

The remainder of the Shire areas include pastoral areas as well as native bushland such as parts of the iconic Pilliga Forest. In this instance, however, there is concern within State Government that the establishment of any designation with some form of nominal 'park' status would result in land use conflicts with interests which are anti-development in nature. The Geological Survey of NSW (GSNSW) had strongly argued that the geopark be contained only within the Warrumbungle National Park. The Department of Planning and Environment had also flagged that they would like to see a comprehensive study undertaken to establish the economic benefits of the project to be weighed up with any political risk.

Although there was firm support emerging from the State Government agency - Destination NSW that a creation of a UNESCO global geopark will substantially enhance tourism visitation to the region, at its meeting in April 2018, and after considering further the views of the GSNSW, the project Steering Committee decided to abandon plans to nominate for a UNESCO Global Geopark, and instead, accept the offer of the GSNSW to assist in developing an alternative geotourism strategy for the region that would include the establishment of a geotrail strategy, e.g., https://bit.ly/3fc6lZs

9. Conclusions Relating to Local Community Engagement for Geopark Development

Lessons have been learnt from the experience in advancing these two 'pre-aspiring' global geopark proposals.

The following conclusions were reached.

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1. More focus and time need to be applied to communicating the 'geo-regional' nature of geoparks. Whilst the promise of UNESCO branding offers the potential for economic benefit, it is a brand that can be seen by landholders as conveying overseas control or more environmental regulation.

2. More work is needed to overcome perceived fears about the detrimental impact of geoparks on other existing land users such as miners and other primary industry stakeholders.

3. Geopark proposals must be supported by State Government Geological Survey organisations to the extent that these organisations are prepared to commit professional geological service when it is realised that geoparks can contribute to community outreach programs of government.

4. Far more time must be allowed to gain community engagement/support to ensure geopark sustainability.

10. Agreed Key Factors for UNESCO Global Geopark Development in Australia

It is now understood that the following factors are essential requirements that need to be met to achieve Australian Government support for an Aspiring UNESCO Global Geopark nomination following the establishment of an approved GeoRegion according to guidelines detailed in **Appendix D.**

1. Assessment and input into the further development of established GeoRegions are the responsibility of individual States / Territories, as legislation and tenure arrangements for land access are quite different in each jurisdiction. Any group wishing to establish a geopark from within an established GeoRegion will need to make representations to the designated State/Territory government agencies to determine how a proposal can be assessed, and the types of works to be undertaken within a GeoRegion before it can be processed for approval.

2. A prominent level of community (including other land-user, particularly with Aboriginal communities) engagement is essential to meet UNESCO requirements.

3. The key driver of geopark development must be focused on regional development – i.e., jobs and growth and demonstrate economic benefit to offset perceived political risk.

4. The approval of State/Territory Government Geological Surveys for individual projects is an absolute necessity.

5. Australian Government approval for UNESCO nomination may well be achieved if state/territory government endorsement and funding is clearly established.

Members of two geopark advocacy groups (the Australian Geoparks Network and GeoparksWA) have been provided with the opportunity to participate in the NGS working groups, but their views about geopark development in Australia are neither supported by the AGC nor by Australian government geoscience agencies.

11. Pilot GeoRegion Projects

The AGC considers that three major geotourism projects, the Ku-ring-gai, Murchison, and Glen Innes Highlands GeoRegions represent ideal pilot studies from which a national set of administrative procedures for geoparks and regional geotrails can be developed.

Ku-ring-gai GeoRegion, Sydney, New South Wales

The Friends of Ku-ring-gai Environment Inc (FOKE), a community organisation, has initiated a project with the objective of making a positive contribution to conservation based in and around Ku-ring-gai Chase National Park, located on the northern outskirts of Sydney (and within the area forming part of the former Sydney Harbour National Landscape), by seeking recognition of the very significant natural and cultural heritage values as exemplified by a wide range of geosites and six formative geotrails which can be highlighted within this GeoRegion. This is not unprecedented in New South Wales as other geosites and geotrails have similarly been recognised at Port Macquarie, Newcastle, Warrumbungle National Park, Central Darling River region and Mutawintji National Park. The future branding of this GeoRegion as an Aspiring UNESCO Global Geopark is also a future possibility.

Having conferred with a range of specialists on the geology, geomorphology, and related natural and cultural heritage values of Ku-ring-Gai Chase National Park, it was decided to investigate further particularly the special geoheritage values which exist in the proximity to the Ku-ring-gai Chase National Park area extending to include the Northern Beaches https://bit.ly/3Lixasb . These geoheritage values (both geomorphological and geological) form the platform for the development of the other natural heritage attributes as well as demonstrating the close relationship between landscape and human activity over many thousands of years.

The Geological Survey of New South Wales has advised that, while concerned that appropriate steps will need to be taken by three Councils and the NSW National Parks and Wildlife Service to ensure that visitor impacts are responsibly managed, the Survey has no objection to any proposal to develop this GeoRegion embracing some 440 sq kms in area as an Aspiring UNESCO Global Geopark. A comprehensive account of 'The Natural and Cultural History of the Ku-ring-gai GeoRegion' has been published by the Linnean Society of NSW https://bit.ly/449lZcN

Murchison GeoRegion Project, Western Australia

Inspired by participation in a SEGRA 2014 conference, Western Australia's Mid-West Development Commission (MWDC) is working with seven Councils to establish WA's first major geotourism development to be built on a geotrail model, focused on the extensive Murchison GeoRegion of WA, located some 550 kms north of Perth. https://bit.ly/3fejIbA

The MWDC believes that the ancient Murchison geology provides the ideal platform for unique, nature-based tourism experiences of global significance, particularly to the 'experience seeker / dedicated discoverer' market. The Mid West Tourism Development Strategy (2014) concluded that the region's iconic nature-based tourist attractions were not developed to their potential and that its visitor appeal was not fully realised. The Strategy identified geotourism in the Murchison sub region as a potential 'game changing' tourism initiative, with capacity to help the region realise its potential as a major tourism destination, with the potential of being nominated as an Aspiring UNESCO Global Geopark.

Glen Innes Highlands GeoRegion, New South Wales

Within the framework of the National Geotourism Strategy (NGS) and as a significant first for Australia, the Glen Innes Severn Council (in the New England Region of Northern NSW) has recently approved a comprehensive Tourism Destination Management Plan https://lnkd.in/g5yk5aNu that has embraced 'geotourism as a holistic approach to featuring natural and cultural heritage into the relevant customer experiences.' The Plan also proposes the development of various trails including a rail trail, all with potential development as geotrails. In addition, the Council has decided to investigate the potential of the Glen Innes Highlands being developed as an outstanding GeoRegion and to review the NGS, with the intention of approaching the Australian Geoscience Council to conduct an audit of this proposition, with early input anticipated from the Geological Survey of NSW and from other geoscientists with local knowledge and experience, particularly from the University of New England located in Armidale.

The Council also sees the medium-term potential of this proposed GeoRegion being considered as a potential Aspiring UNESCO Global Geopark nomination, given the diversity of the Region's substantive cultural attributes including its rich mining heritage.

12. THRIVE 2030 Visitor Economy Strategy and GeoRegions

The Australian Geoscience Council (AGC) has welcomed the recent release of the THRIVE 2030 Visitor Economy Strategy. This strategy sets out to assist the tourism industry and governments in setting a plan for sustainable long-term growth of the visitor economy over the next ten years. It is underpinned by a vision that delivers quality experiences for visitors, includes businesses that are globally competitive that are profitable, grow sustainably and providing jobs, growth and infrastructure that benefit Australian communities. The AGC welcomes the decision made on 6th October 2022 by Australian and State/Territory Tourism Ministers to adopt the THRIVE 2030 Strategy as an overarching policy driver.

One of the key Actions (7.5) of this strategy is to 'grow and develop high-quality products and experiences around unique Australian locations and themes, including approaches which integrate sustainable nature tourism with economic opportunities for Traditional Owners, and reflect emerging tourism trends such as geotourism.' The AGC was pleased to see that the goals of the AGC's National Geotourism Strategy (NGS), , are complementary to this Action, and that there is recognition within the THRIVE 2030 Strategy for the need to integrate natural and cultural heritage. These are core to the design of geotourism offerings. The AGC was also pleased to note that Action 7.7 seeks to enhance the visitor experience through use and availability of technology.' Goal One of the NGS supports this particular action.

The inclusion of a geotourism case study within the Strategy documentation – the then 'NSW Glen Innes Highlands aspiring GeoRegion' – represented a major step in crystalising and advancing geotourism concepts.

APPENDIX D

Guidelines for the Development of GeoRegions

As an outcome of the National Geotourism Strategy, the Australian Geoscience Council Inc has recommended that groups wishing to establish potential geoparks should explore various alternative options for geotourism development, such as by first establishing GeoRegions.

In Australia, GeoRegions can be single, unified geographical areas where sites and landscapes of geological significance are linked together around a central natural or cultural value. Their intended 'bottom-up' approach of combining conservation with sustainable development aims to involve local communities. The establishment of GeoRegions as a first exploratory step has now been accepted by the State/Territory Geological Surveys, through the auspices of the Geoscience Working Group.

It is also strongly recommended that the development of GeoRegions should include the establishment of geotrails between sites of important geodiversity, such as robust geoheritage sites, geological 'monuments' and landforms, or features recognised in state or national heritage registers.

The GeoRegion mechanism provides a framework to undertake comprehensive consultation with the full range of interested or impacted community groups (including Aboriginal communities) and to resolve any identified land-tenure conflict issues that may arise. The following provides a guide to establishing a geotourism project using this mechanism.

As a first step, a full audit of natural and cultural heritage attributes in the region is strongly recommended, as well as preliminary discussions with state-or territory-based Geological Surveys, Planning and Environment agencies, and any other designated state/territory government agencies. This early planning will help focus the work to a defined area and reduce effort by identifying localities unlikely to be suitable for geotourism purposes, having regard to land and resource management considerations.

The GeoRegion Assessment Process can be commenced by a proponent, which might include a local Council, a grouping of Councils or a Regional Development Authority, or alternatively a community or special interest group interested in geotourism development. Having completed basic scoping works, preferably including an approved tourism Destination Management Plan (DMP), the proponent now needs to seek agreement from State/Territory Government agencies to select a defined area — i.e., a GeoRegion — to be recognised as an area of special natural and cultural heritage highlighting outstanding geoheritage features within which proposed geotrails and other attractions can be developed in support of geotourism.

Stage 1: GeoRegion Assessment

The aim of this phase is to seek endorsement by way of a letter from the relevant State/Territory Geological Survey simply confirming that there is nationally or internationally significant geology in the GeoRegion. Based on this endorsement, in principle approval should then be sought from appropriate land managers and Councils, as a way to confirm and formalise this designation.

This process should consist of early consultation with the following groups:

- relevant state/territory agencies that have land and resource management responsibilities (e.g., stock route administration, Crown Lands administration), and/or planning and environment responsibilities within the proposed GeoRegion, including the relevant Geological Survey;
- Local Councils with jurisdictional responsibilities;
- any private landowners or pastoral leaseholders to determine approval of access arrangements;
- any and all Native Title holders or applicants within the chosen area to discuss potential access and heritage concerns;
- other potential government stakeholders (e.g., those cited in any Tourism Destination Management Plan (DMP);
- other stakeholders, such as interested environmental / cultural heritage groups, mining and other primary industries, and Aboriginal community groups; and
- professional societies with expertise in elements of natural and cultural heritage.

Consultation with the local, regional, and state/territory tourism organisations should also be undertaken by any special interest group that has not already been involved in the preparation of a DMP.

Stage 2: Geotrail establishment

This phase consists of developing attractions within the GeoRegion. Potential attractions will have already been identified during the initial region audit, or through consultation with various stakeholders during GeoRegion establishment.

The works in this phase include:

- Development of geotrail concepts, geosites, and heritage sites etc., in association with affected LGA protected area and crown land management authorities. Objectives include obtaining approval for proposed routes and works, identifying any specific requirements relating to public safety and access, determining funding sources, developing geotrail maintenance arrangements, and finalising geotrail nomenclature requirements.
- Continued consultation with community groups including Aboriginal Land Councils, Native Title holders and communities, and environmental and heritage groups.
- Continued consultation with other interested environmental/heritage and Aboriginal community groups, and professional societies that have expertise in elements of natural and cultural heritage, to help develop content to meet interpretation needs.
- Consultation with local school groups with an interest in using geotrails for outdoor educational purposes, as a method to support curricular requirements.
- Continuation of consultation with land-use managers to obtain final approval for implementation of the agreed works. This will need to include an assessment of the location of any identified geological hazards.
- Consultation with the designated state/territory manager for uploading of site/geotrail location and descriptive information in the online *Australian Geotourism Discovery Portal.*

Stage 3: Next Steps

Assessment and input into the further development of established GeoRegions are the responsibility of individual States / Territories, as legislation and tenure arrangements for land access are quite different in

each jurisdiction. Any group wishing to establish a geopark from within an established GeoRegion will need to make representations to the designated State/Territory government agencies to determine how a proposal can be assessed, and the types of works to be undertaken within a GeoRegion before it can be processed for approval.

Dr Jon Hronsky OAM
Chair, National Geotourism Strategy Steering Committee
Australian Geoscience Council Inc

8 December 2023

NOTE: Guidelines approved by a meeting of the Geoscience Working Group of Australian government geoscience agencies on 27th November 2023

Appendix E
Engagement with the former Australia's National Landscapes Programme

Several of the Geotourism Standing Committee's members have been actively involved in and have championed Australia's National Landscapes (ANL) Programme because of the opportunity to promote geotourism concepts. The Programme was the first time the tourism sector, nature conservation managers and tourism advocacy organisations had worked closely together to present Australia's top nature tourism experiences. The Programme facilitated coordinated tourism planning and management and provided a focus for international marketing. The Programme was delivered 'bottom up,' with coordinating bodies for each ANL made up of land managers, regional tourism bodies and local government. The system was 'blind' to land tenure boundaries and in that sense, resembled the geopark structure. Three of the ANLs straddled state borders, demonstrating a unique level of cooperative management.

Australia's National Landscapes Programme included the following regions: Australian Alps (New South Wales/Victoria), Australia's Green Cauldron (New South Wales/SE Queensland border region), Great Barrier Reef and Wet Tropics area (Queensland), Australia's Red Centre and Australia's Timeless North (Northern Territory), Australia's Coastal Wilderness (New South Wales/Victoria), the Flinders Ranges and Kangaroo Island (South Australia), the Great Ocean Road (Victoria), the Greater Blue Mountains and Sydney Harbour (New South Wales), the Kimberley, Ningaloo-Shark Bay, and Great South West Edge (Western Australia), as well as Tasmania's Island Heritage. It should be noted that the area of the Ku-ring-gai GeoRegion is embraced by the former Sydney Harbour National Landscape.

Unfortunately, in 2014, the two key participating Australian Government agencies advised that they had stepped back from a central coordination role and would instead encourage local steering committees and the tourism industry to further advance this concept. However, in 2017 the peak tourism industry lobby group, the Tourism and Transport Forum Australia, released a white paper extolling the virtues of the ANL Programme, a move that can only assist in promoting the development of geotourism. https://bit.ly/2WgeNLb

Appendix F
Strengthening Australia's International Geoscience Standing through Geotourism Excellence (Goal Six of the National Geotourism Strategy)

Using geotourism to strengthen Australia's international geoscience standing and enhance its influence for the long-term benefits of Australian geoscientists through the establishment of sister park, sister museum/rock garden, sister geological and mining heritage sites relationships, particularly with countries in the Asia-Pacific region (specifically China, Taiwan, South Korea, Japan, Vietnam, Thailand, Malaysia, PNG, and South Pacific nations etc.) has been identified as a hitherto unrealised opportunity. This imperative is also relevant for countries that enjoy 'Gondwana age' geological relationships with Australia, specifically New Zealand, and nations within South America, Africa, the Indian Subcontinent, and the Arabian Peninsula.

In June 2016, a Memorandum of Cooperation between the GSA and the Geological Society of China was executed. This Memorandum of Cooperation seeks to promote better understanding and closer cooperation between the two associations for the promotion and advancement of geotourism. At this stage, it is proposed that any co-operation agreement could embrace areas of activity which could include.

- growing and enhancing the level of best practice 'nature-based' tourism in both China and Australia;
- progressing protection, conservation, and presentation of the geoheritage of natural and mixed protected areas, geoparks (in China), national parks and reserves (in Australia);
  Australian National Landscapes and areas on the World Heritage List (as defined in the World Heritage Convention 1972) areas (both countries);
- exploring opportunities to promote ecotourism and geotourism;
- raising the profile of China and Australia as world- leading 'nature-based' tourism destinations;
- exploring other co-operative projects such as participation in conferences; and
- fostering the development of 'sister park' relationships between China and Australia.

On 9th December 2017, a historic Memorandum of Cooperation embracing a 'sister park' arrangement was signed between the Zhijingdong Cave UNESCO Global Geopark and the Jenolan Karst Conservation Reserve. The then Reserve's Administrator, also then a member of the GSA Geotourism Standing Committee, executed this agreement during his visit to the spectacular karst landscape in Guizhou Province in south-west China. The Reserve looks forward to sharing information and management practices, receiving delegations and greater numbers of visitors from China, and negotiating staff exchanges. It is realised that several Chinese UNESCO Global Geoparks are now keen to develop 'sister park' arrangements with key scenic landscape regions in Australia.

The AGC and Indonesian Geoparks Network (IGN) has signed a Memorandum of Understanding in May 2023. The IGN has a total of 10 UNESCO Global Geoparks and nine national geoparks as its members. Apart from strengthening the friendship with Australia's biggest and closest neighbor Indonesia, the MOU initiated tremendous opportunities of cooperation, exchange and learning especially in the areas of geotourism development, conservation management and scientific research for long term benefits of both countries.

As an early initiative of the MOU between the AGC and the Indonesian Geopark Network, the GEOFEST 2024 Sydney Workshop is being organised as an overseas workshop to form part of the major GeoFestival and International Geotourism Conference of Indonesia. The theme of the workshop is 'The Volcano as a World Class Sustainable Geotourism Destination', and the aim of the project is to heighten awareness of the opportunity for geoscientists to be engaged in geotourism development in both countries.

The workshop will be hosted by AGC together with the School of Geosciences of The University of Sydney. It will be a two-day workshop with presentations and discussion on the first day, followed by field trips on the second day. The confirmed date and venue are 18 and 19 July 2024 at the campus of the University. Refer https://bit.ly/40Xw5wF and www.geofest.com.au

Goal Six of the NGS provides for the potential for engagement with other countries in the Asia Pacific Region with strong interests in geotourism and geopark development, and this includes New Zealand where the UNESCO Global Geopark Council has recently approved the Waitaki Whitestone Geopark nomination to become New Zealand's first UNESCO Global Geopark.

An Australia-China Geotourism Accelerator project, supported by the Australia China Friendship Exchange Association (ACFEA) - a non-profit making, non-governmental organisation which has the primary objective of promoting friendship between Australia and China, has been initiated. The establishment of a platform is proposed to promote and develop Australia's geotourism with China by capitalising the available platform set up by the MOU signed between the GSA and the Geological Society of China (GSC) in 2016. Both Shaoguan City Government of Guangdong Province, China and its Danxiashan UNESCO Global Geopark, have expressed great interest in establishing such relationship. Discussions with potentially interested State and Local Government agencies have been initiated.