

Bribie Island Breakthrough - Response to Criteria

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Contents

1 Introduction	6
1.1 Project understanding.....	6
2 Demonstrated Experience	8
2.1 Proposed project team	8
2.2 Relevant Experience	11
3 Value for Money	15
3.1 Price offered.....	15
3.2 Added value	15
3.3 Budget assumptions.....	16
3.4 Project plan	16
4 Methodology	17
4.1 Project Inception.....	17
4.2 Desktop and Literature Review	18
4.3 Review of Postulated Causes.....	19
4.4 Reporting.....	21
4.5 Community Presentation (provisional).....	22
5 BMT management systems	23
6 Terms and Conditions	24
Annex A Curricula Vitae	A-1
Annex B Insurance Certificates	B-1

Tables

Table 2.1 Proposed Project Team.....	8
Table 3.1 Cost estimate breakdown	15
Table 3.2 Provisional items	15
Table 3.3 Project plan	16
Table 4.1 Provisional Investigation Plan.....	19

Figures

Figure 1.1 Breakthrough of Bribie Island, February 2022 (source: Allan Harford).....	7
Figure 4.1 Progressive development of Bribie Island breakthrough	17
Figure 4.2 Process flow for evaluating postulated causes of erosion.....	21

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Name: Sel Sultman
Title/Branch: Principal Coastal Scientist
Company: Department of Environment and Science

03 May 2022
Reference: P.A11925.001.00

Dear Sel,

Thank you for providing BMT the opportunity to present the following proposal to undertake the Review of the causes of erosion on northern Bribie Island.

BMT have provided the following submission based on our understanding of the scope and detailed history of involvement with the coastal environment around Bribie Island. I trust that the proposed scope of works and methodology matches your expectations.

Please contact me if you would like to discuss any aspects of this proposal or require additional information about BMT.

Yours Sincerely

BMT

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1 Introduction

The Department of Environment and Science (DES) is seeking assistance in reviewing the possible causes of erosion at northern Bribie Island that led to the breakthrough of the spit and the formation of a permanent entrance adjacent to Golden Beach (hereafter termed the 'Project'). Although erosion at Bribie Island has been observed and documented over several decades, the recent breakthrough event has generated interest from the community about the potential causes of the erosion.

1.1 Project understanding

BMT understands that the Project is to consider postulated causes of erosion that have led to the breakthrough at Bribie Island (Figure 1.1), to ensure that the community's concerns about a possible human induced cause(s) are fully considered and to guide any future management approach. DES is interested in delineating between natural causes of erosion and human contributed causes of erosion and understanding what contribution they may have had to the breakthrough. An investigation will need to be undertaken to review the postulated cause of erosion, including, but not limited to:

- Storm events, tidal currents and other natural coastal processes.
- Dredging at Spitfire Channel near Cowan Cowan on Moreton Island, and the central bay generally, to extract sand for building and construction purposes.
- Dredging of the navigation channel approximately 1km offshore from northern Bribie Island by the Port of Brisbane.
- The historical development of Lamerough Canal at southern Golden Beach which is claimed to be exacerbating erosion of the western shore of Bribie Island by outflow flow from the canal pushing the main tidal channel against Bribie Island.
- Ship wake from commercial shipping using the adjacent navigation channel.

The investigation is to be undertaken using a range of historical reports, aerial imagery, metocean and tidal data, relevant dredging approvals and digital elevation models, with no further requirement to undertake modelling or data collection. BMT understands that the project is intended to be undertaken with the following methodology and objectives:

1. Inception meeting with DES to discuss the causes of erosion, confirm the objectives of the project; discuss available data; confirm the methodology, requirement, program of works, reporting and stakeholder involvement.
2. Undertake a detailed literature review of the available information for Bribie Island to better understand the human interventions, natural and modified coastal processes and the evolution of Bribie Island over time. BMT has been involved in many of these studies in the past and has a sound basis for undertaking this investigation.
3. Assessment of the postulated causes of erosion, involving an investigation into the likelihood of each postulated cause of erosion contributing to the breakthrough of Bribie Island in January 2022. This should determine if the postulated causes of erosion:
 - a. have merit (are physically credible, are supported by data or coastal science theory)
 - b. can be accepted as a causal factor for erosion and to what extent.

4. Provide a report to DES detailing the cause(s) of the erosion on Bribie Island that led to the breakthrough and provide further recommendations on additional data collection or investigations that may be needed to provide more certainty on the cause of the erosion.
5. Presentation to DES on the findings of the report.
6. Presentation to a DES-convened community group, with the precise delivery mechanism to be confirmed.

BMT has a long history of working on projects either directly related to coastal management at Golden Beach (and the response to a permanent breakthrough at Bribie Island), or within northern Pumicestone Passage that will provide critical background to the Project. The proposed project team has considerable experience in multiple fields directly related to this site, including coastal management/engineering, flood hazard assessment, environmental management, and marine geology. BMT is also well known to the Sunshine Coast community through the delivery of stakeholder engagement events to support previously completed coastal management projects.



Figure 1.1 Breakthrough of Bribie Island, February 2022 (source: Allan Harford).

2 Demonstrated Experience

2.1 Proposed project team

The personnel forming the consultancy team are listed in Table 2.1. The project team has been selected based on their experience with Sunshine Coast Council and local projects for other customers, their community consultation skills, their sound knowledge and practical experience in undertaking such studies, which are essential to the project being efficiently and successfully completed. We bring this specific experience and trusted hands to the project. Note that, if necessary, this team will be supported by a wider range of support staff and technical specialists. Short CVs for these personnel are attached below.

Table 2.1 Proposed Project Team

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2.2 Relevant Experience

2.2.1 Golden Beach and Bribie Island Breakthrough – Options, Design, Approvals and Investment Plan

This study provided a review of the risk to Sunshine Coast Regional Council assets and values associated with shoreline erosion and coastal inundation to mainland communities between Caloundra Bar and Bells Creek, northern Pumicestone Passage. Particular attention was given to the increased coastal inundation risk associated with a breakthrough of the Bribie Island northern spit. The northern Pumicestone Passage and offshore coastal processes were reviewed as part of this study, including:

- Historical tides and extreme water levels
- The offshore wind and wave climate
- Wave runup and overtopping potential at the Bribie Island northern spit
- Sediment supply and transport mechanisms at the northern spit and within northern Pumicestone Passage
- The historical shoreline position and possible future breakthrough scenarios.



Through liaison with Council and the Queensland Government, BMT delivered a strategy to implement the management options promoted in the Sunshine Coast Shoreline Erosion Management Plan (SCC, 2014). The strategy was underpinned by the monitoring of shoreline erosion and water levels within Pumicestone Passage, with defined triggers for enhanced management action, including beach nourishment and a seawall. The monitoring plan included the permanent storm tide gauge at Golden Beach which was installed in 2016.

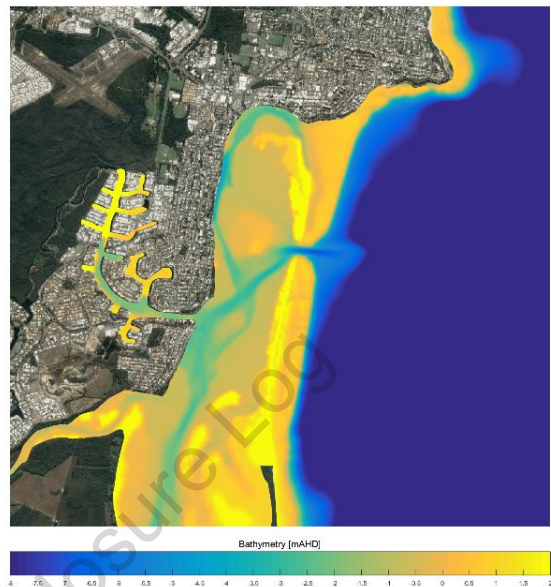
The study report is publicly available via the Council's website and includes a review of the available historical data (up to 2014) that will be extended as part of the current study:

<https://www.sunshinecoast.qld.gov.au/bribieplan>

2.2.2 Pumicestone Catchment Flood Study

As part of the Pumicestone Catchment Flood Study, several Bribie Island northern spit breakthrough scenarios were developed and assessed with a detailed coastal processes modelling system. The hydrodynamic component of the modelling system was calibrated to data recorded by the Golden Beach storm tide gauge that was installed in 2016, including during surge conditions associated with an East Coast Low weather system.

At the time of the assessment, it was not possible to forecast the sequence of events that would lead to a new permanent entrance to northern Pumicestone Passage. Instead, an approach was adopted to select potential locations where a breakthrough could occur and develop into a permanent entrance, with the morphological modelling effort focusing on the changes within northern Pumicestone Passage in response to the new entrance location. The modelling tools demonstrated the potential for rapid changes to the tidal regime within the Passage following a breakthrough the increased risk of coastal inundation for mainland communities.



New model scenarios are not proposed as part of the current study. However, existing model outputs are available and will be used to assist with the description of tidal flows and peak currents within northern Pumicestone Passage prior to the breakthrough.

2.2.3 Community Engagement (various projects)

A unique feature of our team is that they are technical experts and also highly experienced community engagement facilitators. This means our facilitators can explain and engage effectively around difficult environmental and management concepts in clear terms, while managing debates between experts and capturing diverse and representative community viewpoints. Our team has led many coastal related engagement and training activities across diverse jurisdictions and communities covering all aspects of integrated coastal management including engineering, management, governance, hazard, risks, mitigation, adaptation, monitoring (including community science) and traditional owner participation and engagement. BMT has demonstrated success in clearly understanding the context, issues and drivers of often “controversial” or “contested” coastal management issues to drive good coastal management outcomes. We engage with diverse stakeholders using “mixed methods” approaches including new technologies, and work across the spectrum of government (Federal, State and Local), industry and the broader community.

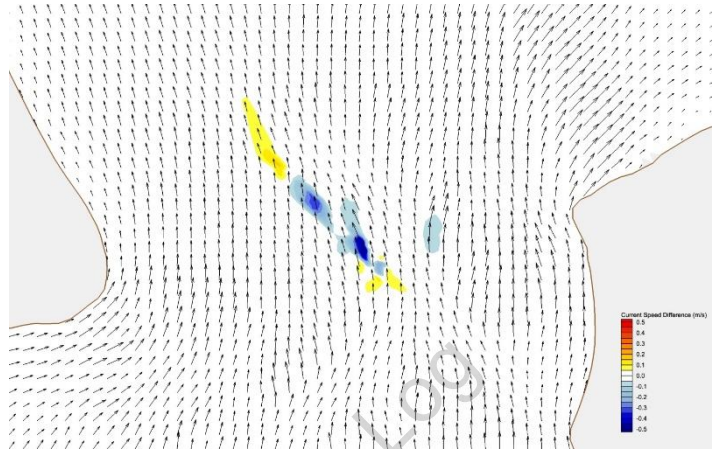
2.2.4 Sunshine Coast Airport Expansion EIS

Expansion of the Sunshine Coast Airport involved sourcing marine sands from Spitfire Channel in Northern Moreton Bay. As part of the Sunshine Coast Airport EIS, BMT described the existing physical and chemical conditions at the target dredge area, and the potential impacts associated with the proposed dredging works on the regional hydrodynamic and morphological processes and water quality.

The study included detailed numerical modelling of coastal processes under both the pre- and post-development scenarios to identify any potential impacts that may occur to the shoreline areas adjacent to the target dredge area, as well as quantifying potential temporary impacts to water quality during the dredging operations. The assessments concluded:

- Despite the natural mobility and continual evolution of the Northern Delta, including the ongoing deposition of sand from the coastal system, there is no evidence of change in the tidal regime of Moreton Bay due to the natural morphological changes or historical sand extraction activities.
- Similarly, the proposed dredging was not likely to alter hydrodynamics, flushing or circulation patterns within Moreton Bay.
- There were no discernible impacts to water level associated with the proposed dredging and therefore an assumed negligible impact on the tidal regime of Moreton Bay.
- Impacts to current speed and direction were restricted to the vicinity of the proposed dredge area where some local realignment and magnitude changes are predicted to occur.
- There were no cases where current speed or direction was significantly altered along shoreline locations at Bribie Island and Moreton Island, suggesting no adverse impact on the regional morphological process of Moreton Bay.

These assessments are directly relevant to the current study, and we expect this experience to assist with addressing community concerns about dredging-related impacts at Bribie Island.



2.2.5 Moreton Bay Sand Extraction Study

On behalf of DES, BMT completed a review of the available sand supply within Moreton Bay to inform the sustainability of existing extraction locations and seek alternative sources should they be required in future. The Moreton Bay project exists in the context of highly sensitive cultural and environmental values that needed to be evaluated alongside the functional requirements of the extraction locations.

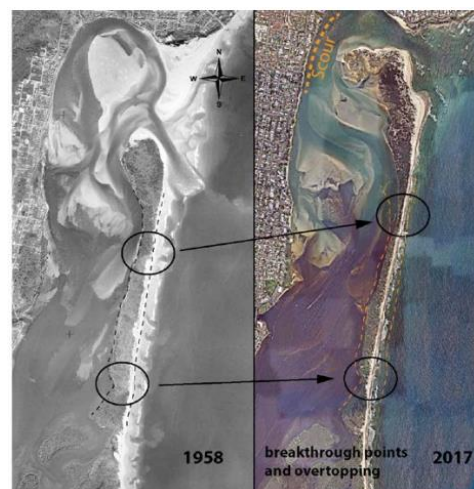
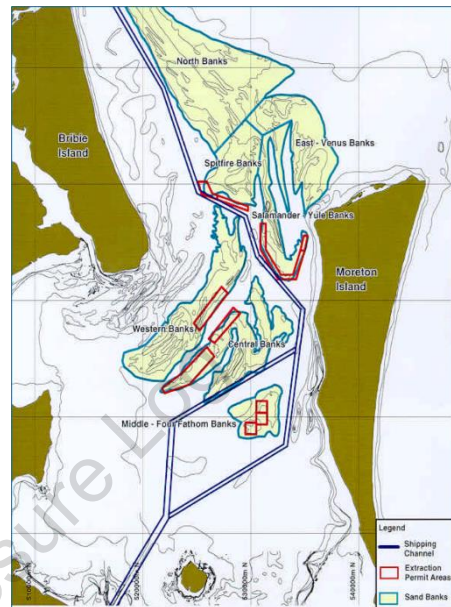
The Moreton Bay project was split across two stages, with a desktop review of suitable sources followed by targeted fieldwork. The key elements of this project were:

- A high-level review of existing plans and information pertaining to existing resource conditions
- A discussion of the prospects for the sustainable extraction of sand, with detailed consideration for environmental impacts.
- Engagement with government agencies and industry.
- Engagement with First Nations People and with conservation and resource management stakeholders.
- Assess possible additional long-term future sand extraction sites in the Bay through a qualitative multi-criteria analysis (MCA).
- Field work involving a range of scientific field-based investigations in the Bay related to geotechnical studies to assess sand resource quantity and quality.
- Modelling of coastal processes to assess the potential impacts associated with sand extraction activities.

Similar to the assessments for the Sunshine Coast Airport Expansion EIS, the potential impacts of sand extraction within Moreton Bay are directly relevant to the current study. We expect this experience will assist with addressing community concerns about dredging-related impacts at Bribie Island.

2.2.6 Bribie Island Breakthrough ARC Linkage Application

BMT was involved as a partner investigator for an Australian Research Council grant funding application in conjunction with The University of Queensland, The University of Newcastle, The University of New South Wales, Sunshine Coast Regional Council and DES. The research project aimed to determine the consequences of the fragmentation of Bribie Island, quantify the impact following the loss of this protective barrier, develop a shoreline evolution tool for the Island and investigate adaptation options. Ultimately, this research grant was unsuccessful, however, BMT's involvement in developing the program will provide useful background for this current project. As well, BMT has proposed to include other members of this submission as part of the expert panel for this project, should DES determine that it will be beneficial.



3 Value for Money

3.1 Price offered

We propose to undertake the study for \$16,165 excluding GST. Our breakdown of this fee into the respective study components is provided in Table 3.1. Indicative costs for provisional items are provided in Table 3.2 and would be discussed as part of the project inception.

Table 3.1 Cost estimate breakdown

Project phase	Description	
Inception Meeting	Inception meeting with DES	sch4p3(2) Prejudice affairs of entities
Desktop Review	Review of relevant materials for investigation.	
Postulated Causes	Investigate postulated causes of events and provide conclusions.	
Reporting	Deliver outcomes including presentation to DES, technical paper and synthesis paper.	
Total		

Table 3.2 Provisional items

Provisional Items	Description	Cost (ex GST)
Community Presentation	Preparation and delivery of community presentation.	sch4p3(2) Prejudice affairs of entities
Expanded expert panel	Inclusion of UQ academics in expert panel for review of postulated causes.	

3.2 Added value

BMT provides significant additional value to this project because of our team’s experience, involvement in projects that are directly relevant to the current scope of work, and relationships within other stakeholders. Specifically, the following is a summary of areas where BMT are providing additional value or can provide additional value in any later stages:

- **Project team:** the proposed project team has a multidisciplinary experience that directly relates to Bribie Island. This includes researchers that specialise in coastal geomorphology, coastal management, and environmental geophysics and have undertaken research on Bribie Island and the surrounding areas in recent years (including monitoring of the breakthrough event).
- **Coastal processes modelling:** BMT has established coastal processes models and the outputs from previous studies can be interrogated and used to illustrate key concepts. This includes:
 - Pumicestone Passage and Bribie Island model that has been previously used to assess breakthrough scenarios.

- The Moreton Bay model used to assess the potential impacts to coastal processes associated with dredging at the Spitfire Channel and Permit area as part of the Sunshine Coast Airport Expansion EIS.
- The Moreton Bay models used to support the assessment of sand extraction at various location within Moreton Bay for the original (2005) and more recent (2021) studies.

3.3 Budget assumptions

This budget has been developed based on the following costing assumptions:

- All meetings with DES personnel will be undertaken either at BMT offices or via an agreed online platform.
- An allowance for investigation of up to 8 postulated causes has been made in this offer, with additional causes to be negotiated as needed.
- A provisional estimate for a community presentation including Q&A session at a single venue on the southern Sunshine Coast with a duration of 90 mins has been proposed. Should the desired format be substantially different from this, BMT will negotiate a revision of this fee estimate.
- The technical and synthesis reports do not include an allowance for graphic design or desktop publishing and will be compiled using existing outputs, aerial images, and standard GIS mapping outputs. BMT can also produce infographics and desktop published fact sheets, subject to negotiation with DES.

3.4 Project plan

An indicative project plan is presented in Table 3.3 and will be discussed at project inception. In this plan we have assumed:

- Project commissioning and inception in the week starting 9 May 2022
- All datasets, reports and other relevant documents are provided no later than the week starting 16 May 2022
- Draft technical paper and presentation to DES is delivered in the week starting 13 June 2022
- Final technical paper and concise synthesis paper are delivered in the week starting 27 June 2022
- Community presentation occurs during or after July 2022

Table 3.3 Project plan

	09/05/2022	16/05/2022	23/05/2022	30/05/2022	06/06/2022	13/06/2022	20/06/2022	27/06/2022	04/07/2022
Inception Meeting									
Desktop Review									
Review of Postulated Casues									
Reporting and DES presentation									
Community Presentation (provisional)									

4 Methodology

4.1 Project Inception

BMT will arrange and facilitate an inception meeting at BMT offices at Level 5, 348 Edward Street, Brisbane, Queensland between members of DES and BMT. This meeting will be used to further clarify the project methodology and scope, with BMT circulating meeting minutes to all attendees within 5 business days.

The inception meeting will include, but not be limited to:

- A discussion on the postulated causes of erosion.
- A discussion of the methodology intended to be used by BMT to consider each of the postulated causes of erosion.
- Review of timeframes, responsibilities and reporting requirements including a discussion about the potential community engagement.
- Review of available reports including confirmation of any further materials required by BMT.
- Arrangement for progressive reporting to DES.

BMT has a strong existing relationship with researchers from the University of Queensland, particularly with respect to Bribie Island, following our joint research applications. As a provisional item, BMT can involve Professor Tom Baldock and/or Dr Dave Callaghan as part of our expert review panel when evaluated the postulated causes of erosion and formulating any additional causes that may be worth investigating.

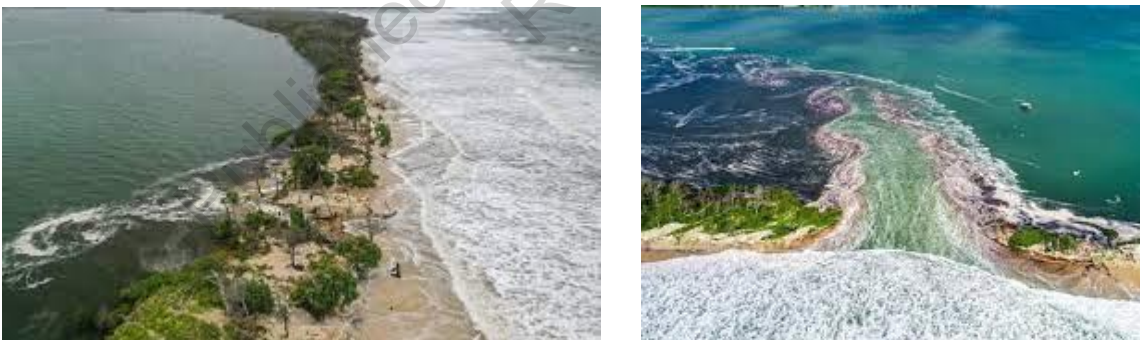


Figure 4.1 Progressive development of Bribie Island breakthrough¹

¹ Image sources: Left:<https://www.brisbanetimes.com.au/national/queensland/queensland-s-other-sea-change-is-altering-the-coastline-forever-20220120-p59ptw.html>; Right:<https://www.sunshinecoastnews.com.au/2020/12/14/this-is-a-first-natures-fury-leaves-bribie-exposed/>

4.2 Desktop and Literature Review

BMT will undertake a review of available reference material to provide a general discussion of regional coastal processes and identify available literature that may be used to construct suitably robust cases for each of the postulated causes of erosion. The desktop review will summarise and reference the key findings from previous reports around Bribie Island and other similar environments and will be used to describe:

- The coastal processes of Pumicestone Passage and the open coast of Bribie Island.
- Erosion pressures on Bribie Island.
- The evolution of Bribie Island leading to the breakthrough.
- Morphological response of barrier islands following breakthrough events, both specific to Bribie Island and more generally.
- Available literature that may or may not support the postulated causes of erosion.

The desktop and literature review are intended to develop a strong foundational knowledge for exploring the postulated causes of erosion. BMT has been involved with several projects in the Bribie Island region and the proposed project team has a strong pre-existing foundation of knowledge for this area, which aid this review process. While this project has not deemed any coastal process modelling necessary, BMT has existing models of the region, the results of which will be reviewed in the context of this project.

With reference to the postulated causes of erosion and documents and data listed in the RFQ, BMT anticipate that the following source materials will be critical in forming the basis for understanding the causes of erosion:

1. Previous reports that describe the coastal processes generally. Primarily, this will include the Golden Beach and Bribie Island Breakthrough study that BMT produced for Sunshine Coast Council, as well as other documents as needed.
2. Reports that describe the long-term shoreline trends on Bribie Island, including:
 - a. Report of Recent Changes Near the Northern End of Bribie Island And Possible Sedimentation in Pumicestone Passage (Queensland Department of Environment and Heritage 1992)
 - b. Update on coastal erosion at northern Bribie Island and EPAs perspective on future management, report prepared for Sunshine Coast Council (Sultmann 2008)
3. Reports describing the impacts associated with sand extraction and dredging within Moreton Bay, including:
 - a. Sunshine Coast Airport Expansion EIS, Moreton Bay Coastal Processes and Water Quality Chapter
 - b. Moreton Bay Sand Extraction Study (WBM, 2002, 2003, 2004, 2005; BMT 2021)
4. Model outputs from previous assessment of Bribie Island breakthrough scenarios used to inform the Pumicestone Catchment Flood Study (BMT 2017).
5. Bathymetric and dredging data that describes the changes to the channels offshore from Bribie Island.
6. Wave, wind, and tidal data from relevant nearby sources.

7. Aerial/satellite imagery of Bribie Island to extend the previous shoreline erosion assessments and estimate the rates of erosion leading up to the recent breakthrough event.
8. Review of community submissions as appropriate.

4.3 Review of Postulated Causes

We understand DES have received feedback from the community about a variety of potential human and natural actions that may have led to the breakthrough of Bribie Island, with five initial causes proposed. We will use our experience and understanding of the local coastal processes to consider and propose any additional possible causes, with a final list to be confirmed between BMT and DES during the inception meeting. Our lump sum estimate includes an allowance to investigate between five and eight possible causes. The approach to investigating the postulated causes provided with the RFQ is summarised in Table 4.1.

Table 4.1 Provisional Investigation Plan

Postulated Cause	Data	Aims
Natural coastal processes	<ul style="list-style-type: none"> • Wave, wind and tidal data. • Aerial images • Previous reports 	<p>Describe the coastal processes and erosion trends leading to the breakthrough.</p> <p>Assess recent patterns of extreme weather events in the context of long-term trends.</p> <p>Update historical shoreline erosion analysis and estimates of erosion rates prior to the breakthrough.</p>
Dredging at Spitfire Channel and Permit Area	<ul style="list-style-type: none"> • Bathymetric Survey (BMT has recently reviewed a survey from 2021) • Relevant reports including the Sunshine Coast Airport Expansion EIS and Moreton Bay Sand Extraction Study • Existing model outputs 	Assess the potential impact to coastal process at the Bribie Island shoreline associated with these dredging activities.
Dredging of the navigation channel	<ul style="list-style-type: none"> • Bathymetric Survey (if available) • Dredging records 	Assess the potential impact to coastal process at the Bribie Island shoreline associated with channel maintenance, focusing on the potential to intercept the natural sediment transport pathway from North Banks and Hamilton Patches.
Development of Lamerough Canal	<ul style="list-style-type: none"> • Aerial Imagery • Existing model outputs 	Asses the likely contribution of this canal on channel migration and erosion within Pumicestone Passage.
Ship Wake	<ul style="list-style-type: none"> • Previous report and literature • Local wave data 	Assess the likely contribution of ship wake to the erosion of Bribie Island, in the context of the total wave climate.
Others (to be discussed at project inception)	<ul style="list-style-type: none"> • TBC 	Assess the contribution of erosion or coastal process modification that could have contributed to the breakthrough.

The degree of contribution of each of these postulated causes of erosion will vary from insignificant to significant, with the purpose of this project to investigate the potential magnitude of contribution from each cause. The reporting will separate postulated causes that are simply correlated in time with the breakthrough event from those that are both causal and significant in contribution to the breakthrough of Bribie Island.

BMT will utilise the information gathered through the desktop review to undertake an evidence-based assessment of the postulated cause of erosion to establish (or not) a causal link between the postulated cause and the breakthrough and then establish the likely magnitude of contribution (Figure 4.2). The evaluation of each postulated cause needs to determine, with sufficient evidence, that the cause and effect are correlated, causal and significant, with the following possible outcomes:

- **No contribution:** The postulated cause of erosion has been suitably explored and found that it could not contribute to the breakthrough of Bribie Island.
- **Insignificant contribution:** The postulated cause of erosion has been suitably explored and found that it would have an insignificant contribution to the breakthrough of Bribie Island. The postulated cause may directly cause erosion to Bribie Island or modify coastal processes adjacent to Bribie Island in a minor way.
- **Probable contribution:** The postulated cause of erosion has been suitably explored and found that it could have had a significant contribution to the breakthrough of Bribie Island but is unlikely to be the leading cause. The postulated cause may directly cause erosion to Bribie Island or modify coastal processes adjacent to Bribie Island in a significant way.
- **Major contribution:** The postulated cause of erosion has been suitably explored and found that it is likely the leading cause of erosion contribution to the breakthrough of Bribie Island. The postulated cause directly contributes to erosion on Bribie Island in a significant way.
- **Needs more information:** The postulated cause of erosion cannot be suitably confirmed or explored due to a lack of information to confirm either its causal relationship with the erosion or the magnitude of the erosion it may contribute.

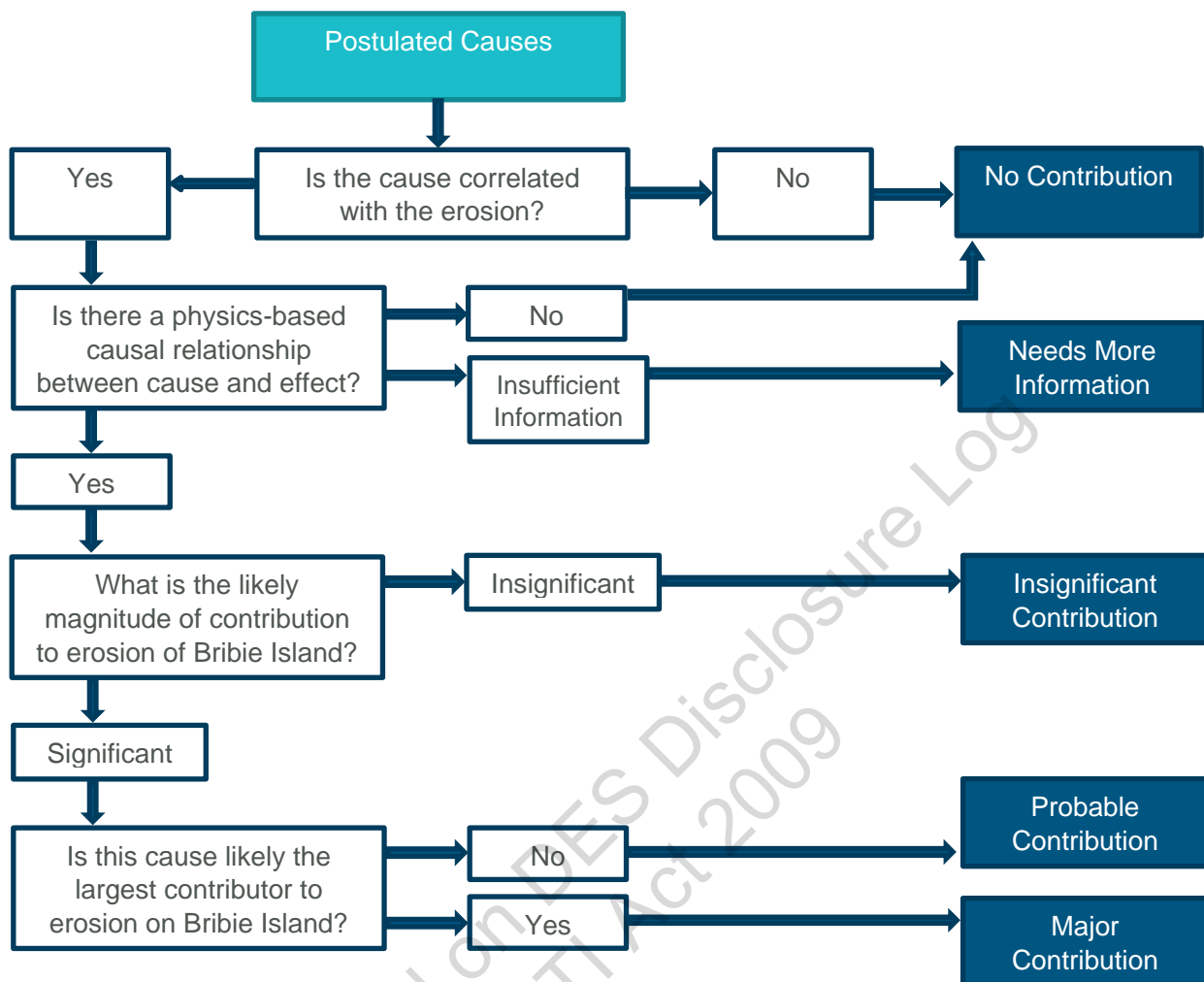


Figure 4.2 Process flow for evaluating postulated causes of erosion.

4.4 Reporting

Following the completion of the investigation phase of the project, BMT will prepare a technical paper that summarises the conclusions from the investigation as well as deliver a presentation to DES. The technical paper and presentation will outline the following topics as a minimum:

- The conclusions from the desktop and literature review, including the analysis of the erosion rates, regional coastal processes, identification of key coastal management interventions and any other information relevant to the investigation of the postulated causes of erosion.
- Provide an opinion on the cause/causes of the erosion trend on northern Bribie Island which has led breakthrough and formation of the permanent entrance.
- The conclusions from the investigation of each postulated cause of erosion. This should demonstrate a rigorous investigation that has explored the potential contribution of each cause and provides a conclusion of the contribution of each postulated cause of erosion.

- A summary of knowledge gaps identified within the desktop review and investigation as well proposal of future investigations that may prove useful in further understanding the breakthrough of Bribie Island and its potential ramifications for the region.

A concise synthesis paper, in the form of a two-page “plain-English” summary with illustrations to demonstrate key concepts and conclusions will also be produced. The synthesis paper will be appropriate for a broader audience, outlining the investigation technique, the key findings and rationale.

Some recent examples of engagement material and public documents prepared by BMT and our project partners include:

<https://www.goldcoast.qld.gov.au/Council-region/Future-plans-budget/Plans-policies-strategies/Our-plans/Coastal-Adaptation-Plan>

<https://frasercoast.engagementhub.com.au/projects/download/10457/ProjectDocument>

<https://speakup.isaac.qld.gov.au/60657/widgets/307064/documents/226887>

<https://www.livingstone.qld.gov.au/downloads/file/2257/our-living-coast>

4.5 Community Presentation (provisional)

BMT have considerable recent experience with delivering community consultation programs on coastal management issues, particularly in Queensland. BMT have been involved with several different consultation methods across a variety of projects, including in-person ‘town halls’, ‘pop-ups’ and online delivery methods and are flexible as to the delivery methodology preferred by DES for this project. Within this proposal, BMT have made an allowance to prepare and facilitate a presentation to the local community at Caloundra. It is proposed that this would take the form of a concise presentation with a Q&A session to follow, however, the exact format and scope of this presentation will be confirmed with DES at the Inception Meeting.

5 BMT management systems

BMT has a strong commitment to ensuring high quality throughout the delivery of our projects. This commitment to quality is maintained through the application of the following management systems (copies of which can be provided on request).

Health, safety, environment and quality

Our Integrated Management System has been developed in recognition of the organisational risk profile and culture. HSEQ management is subject to regular review by the Australian Management Team. HSEQ procedures and guides have been developed to provide management and employees with guidance material that provides flexibility to suit the various work environments we operate within.

The management of HSE is based on the principles of continual improvement.

BMT's Integrated Management System is externally certified to the requirements of ISO45001, ISO 14001:2015 and ISO 9001:2015 and has been audited and certified to meet the strict requirements of Chevron Australia Pty Ltd's Contractor Health, Environment and Safety Management (CHESM) system and of Rio Tinto's Contractor Management System.

Operations management

To ensure that BMT's field work is undertaken safely, effectively and consistently BMT has a dedicated Operations Management System and team including a nominated Dive Officer. Field trips are coordinated by BMT's Operations Manager and for large or complex field programs a Field Lead is nominated and is responsible for the daily field operations. Each of BMT's Field Leads has a strong understanding and experience with BMT's Operations management systems. During each field trip, pre-start briefings and daily reports are compiled. On completion of each field trip there is a formal debrief to ensure any issues arising are resolved as well as to capture any suggestions for improvements for subsequent field work.

Data management

The management of spatial data and provision of Geographic Information System (GIS) products is a key component of BMT's service to our clients. BMT's Environmental Data Management System recognises the need for:

- integration of data quality control through all relevant BMT policies and procedures
- logical data management frameworks for data storage, use and maintenance
- application of a spatial data management life cycle that includes a focus on data integrity and applicability
- integrated and searchable data documentation (as metadata statements and within the dataset itself)
- high quality map products in our reports.

6 Terms and Conditions

BMT have reviewed the submitted terms and conditions of the contract and request the ability to discuss/negotiate commercial terms on good faith consistent with BMT policy. In particular, BMT is seeking to discuss the following clauses:

sch4p3(2) Prejudice affairs of entities

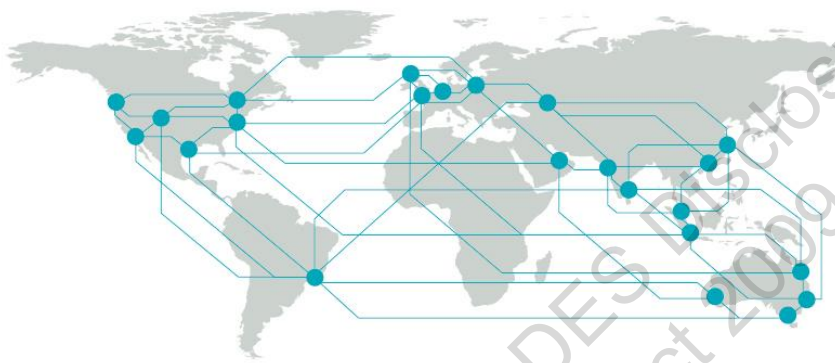
Published on DES Disclosure Log
RTI Act 2009

Annex A Curricula Vitae

Published on DES Disclosure Log
RTI Act 2009

Annex B Insurance Certificates

Published on DES Disclosure Log
RTI Act 2009



BMT is a leading design, engineering, science and management consultancy with a reputation for engineering excellence. We are driven by a belief that things can always be better, safer, faster and more efficient. BMT is an independent organisation held in trust for its employees.

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Streamlined Request for Quote

DES122628 – Review of the causes of erosion on northern Bribie Island

Section 1 – Request for Quote	
Customer Details	The State of Queensland acting through the Department of Environment and Science ABN: 46 640 294 485
Contact Officer	<p><i>Financial Delegate:</i> Celine Roux, Science Leader, Queensland Government Hydraulics Laboratory, Science and Technology 27 Quinlan Street Deagon, Qld 4017</p> <p><i>Technical Delegate:</i> Sel Sultmann Principal Coastal Scientist Environmental Policy and Planning Branch Sel.Sultmann@des.qld.gov.au 3330 5768</p>
Request for Quote Details	
Date of Issue	08/04/2022
Request for Quote Contact Officer	All enquiries regarding this RFQ should be directed to: Name: Mitch Whatley Position: A/Senior Procurement Officer Email: Procurementdes@des.qld.gov.au
Closing Date and Time	2:00pm Queensland Time on 29/04/2022
Cut off for Clarification	2:00pm Queensland Time on 22/04/2022
Submission Requirements	<p>Quotes are to be submitted via email to Contact Officer, by the closing date and time.</p> <p>Submissions are to be zipped where possible with a maximum email size of 20MB</p> <p>Quote must include the following as a minimum:</p> <ul style="list-style-type: none"> • Completed and signed - Request for Quote (this document) • Copy of Certificate of Currency of required insurance policies

Offer Validity Period	All quotes submitted will remain valid and open for acceptance for 90 calendar days.
Complaints	If at any time during the Invitation Process a Supplier considers that it has been unreasonably or unfairly treated and it has not been able to resolve the issue with the Client contact person, the Supplier may request for the issue to be dealt with in accordance with the Client's complaint management process as per instructions and options outlined at: https://www.des.qld.gov.au/contactus/feedback/?type=complaint
Conditions: the following conditions apply to this Request for Quote and the resulting purchase of goods and services	
Conditions of Offer	This Request for Quote (RFQ) process will be governed by the RFQ Conditions contained in Schedule A.
Conditions of Contract	<p>The Basic Purchasing Conditions will apply to the contract formed with the successful Supplier. The Conditions are available at the Department of Energy and Public Works website The definitions and rules of interpretation applicable to the Contract are available on the Department of Energy and Public Works website.</p> <p>A contract will not be formed until the Customer provides formal notice to the Supplier that the Supplier's the offer has been accepted.</p> <p>For the purposes of the Contract Conditions, the 'Contract Details' or 'Details' refers to this document and any Purchase Order issued to the successful supplier.</p> <p>The Supplier Code of Conduct details the behavioural standards and principles expected of suppliers. The successful Supplier is required to comply with the Supplier Code of Conduct and the Queensland Government's Ethical Supplier Threshold.</p> <p>The Department of Environment and Science COVID-19 Vaccination Requirements Policy and Procedure will apply to the contract formed with the successful Supplier and</p> <p>The Department of Environment and Science COVID-19 Risk Management – Requirements to attend Department of Environment and Science facilities will apply to the contract formed with the successful Supplier.</p>

Section 2 - Requirements	
Description of goods and/or services required	<p>Background:</p> <p>Bribie Island is a barrier island approximately 34km in length located in Southeast Queensland, Australia. It provides protection for Golden Beach and Pelican Waters on the western side of Pumicestone Passage from the higher wave energy environment of Moreton Bay. The northern end of Bribie Island consists of a 5 km narrow spit like sand barrier, which has experienced a long-term trend of erosion and has narrowed by up to 120m since 1940.</p> <p>In January 2022 the Northern section of Bribie Island experienced significant erosion caused by unusually high tides and large waves associated with Cyclone Seth. The erosion caused by this weather system resulted in wave wash-over of the dunes and a tidal breakthrough of the island, forming a new tidal entrance approximately 400m wide. This event is not the first-time storm waves have caused severe erosion on Bribie Island with notable recent events being in December 2020 and during es Severe Tropical Cyclone Oswald in 2013.</p> <p>The breakthrough has generated substantial community concern and raised questions regarding the causes of the erosion which resulted in the breakthrough event. The Department of Environment and Science (DES) is of the view, based on available evidence, that the erosion is a natural process caused by a sand supply deficit at the eastern coast with more sand being moved north and south, and into Pumicestone Passage, than is being supplied to the coast. However, some in the community believe erosion is due to human induced causes rather</p>

that natural coastal process.

Postulated causes of island erosion includes (but not limited to):

1. Storm events, tidal currents and other natural coastal processes.
2. Dredging at Spitfire Channel near Cowan Cowan on Moreton Island, and the central bay generally, to extract sand for building and construction purposes.
3. Dredging of the navigation channel approximately 1km offshore from northern Bribie Island by Port of Brisbane.
4. The historical development of Lamerough Canal at southern Golden Beach which is believed to be exacerbating erosion of the western shore of Bribie Island by outflow flow from the canal pushing the main tidal channel against Bribie Island.
5. Ship wake from the commercial shipping using the adjacent navigation channel.

DES proposes to engage an independent technical expert to examine available information and investigate potential causes of erosion at Bribie Island with respect to physical credibility and coastal processes science. The reviewer is required to deliver a Technical Review Paper as well as a presentation to departmental staff and community forum on the findings.

Objectives:

The objectives of the project are to:

- Investigate postulated causes of island erosion, including potential human induced cause, based on available data and information;
- Identify if the postulated causes of erosion;
 - have merit (are physically credible, are supported by data or coastal science theory),
 - can be accepted as a causal factor for erosion and to what extent,
 - identify data or information gaps.
- Identify further study, monitoring and investigations required to provide certainty for a robust understanding of erosion causes.

Exclusions:

No coastal modelling is required

No additional data collection is envisioned

Note: processing and manipulation of existing data to better understand the causes of erosion is within scope.

Available documentation and data:

Available reference materials includes, but is not limited to, the following:

- Wave and tide data, Caloundra wave buoy and tide gauge Golden Beach Potentially data from + 3 temporary tide gauges
- Previous prepared reports
- Qld Globe imagery (available online) and potentially hard copy historic imagery
- Geo-referenced aerial imagery from about 2009
- Satellite imagery (can be provided by DES Remote Sensing Centre upon engagement)
- High resolution digital elevation models from about 2011
- EPP approvals for dredging (incl. supporting documents)
- Reports prepared or commissioned by DES – full list to be provided.

- Recent navigation channel bathymetric survey near northern Bribie Island provided by Port of Brisbane.
- UAV surveys (conducted on the 30/09/2020, 22/04/2021, 1/09/2021)
- Historical data sets for the 3 temporary tide gauges: 1993

DES has previously examined ship wake from wave buoy data at Caloundra, this data can be provided as well as the analysis, also see attached technical paper. Three temporary tide gauges are being installed at the Skids, Hussey Creek and Halls Creek Mouth to monitor the tidal regime. Those sites have previously recorded tidal data in 1993.

Scope:

The Department of Environment and Science is seeking an understanding of the cause or causes of the erosion trend of northern Bribie Island to ensure the communities concerns about a possible human induced cause are fully considered and to guide any future management approach. This is particularly relevant to the recent tidal breakthrough of the island caused by the erosion and therefore whether this can be confirmed as a natural process or if there is a human induced cause in full or part.

The work required will include examining causes of erosion postulated by the community and identifying if these could be a contributing cause, and to what extent. This study shall be based on existing data, information and coastal science/engineering/geomorphic analysis and should include recommendations for future study and data capture if necessary to confirm or better understand a specific cause of erosion.

Inception meeting

The consultant will arrange and facilitate an inception meeting with the DES project officer and representatives. The intent of this meeting is to clarify and agree on key requirements of the project including methodology to undertake the full scope of the project. Key themes of the meeting will include but not be limited to the following:

- General discussion on the postulated causes of erosion
- Expected outcomes and objectives of this engagement
- Questions regarding available data and reports
- Methodology for the report
- Program of work with proposed milestones and deadlines and DES project officer involvement/ review
- Roles and responsibilities of the project team
- Arrangements for progressive reporting to DES project officer
- Confirmation of requirements

The consultant is to prepare and circulate meeting minutes to all attendees for review and confirmation within 5 business days after the meeting.

Review existing data and documents + literature review

The consultant is to undertake a review and desktop analysis of:

- Current and past information about Bribie Island and human interventions in the area that could potentially cause erosion
- Local coastal processes studies
- Data sets: tide, waves, bathymetry, imagery, and analysis if required
- Other studies relevant to the area and topic

	<p>The reference material available is extensive and this study should rely on previous work and obtained datasets where appropriate. The consultant should further collate, analyse and contextualise historical data if required to establish links to potential causes of erosion at Bribie Island.</p> <p>References should be provided for other literature that may be used.</p> <p>Analysis of the postulated causes of erosion</p> <p>Analyses information and data to derive an insight into the causes of erosion, relative scale of contribution of any specific cause, and for all postulated causes provide an opinion as to the veracity or likelihood with respect to physical coastal processes and observed erosional trends. The opinion should also provide reasons why a postulated cause of erosion could not contribute to the observed erosion of Bribie Island (i.e. pros and cons).</p> <p>Conclusions and recommendations</p> <p>The report is required to provide:</p> <ul style="list-style-type: none"> • an opinion on the cause/causes of the erosion trend on northern Bribie Island which has led to the tidal breakthrough, and on the postulated erosion causes generally • recommendations on further data collection or investigations considered necessary to improve certainty in our understanding of the erosion cause.
<p>Deliverables / Milestones</p>	<p>Deliverables:</p> <p>Report and Presentations</p> <ul style="list-style-type: none"> • Briefing of the report results for DES staff • A technical paper summarising investigations and providing findings and recommendations • A synthesis paper for community consultation • Presentation of the results for a community group and assume delivery at Caloundra. Covid restrictions will be assessed at the time. <u>Please cost this item separately as the delivery mechanism is not confirmed.</u> <p>All submitted and supporting documents and reports delivered in .pdf format as well as original and editable native electronic formats.</p> <p>Presentations to be prepared in PowerPoint and handouts in .pdf format.</p> <p>Milestones and payment schedule:</p> <p>Draft report 50%</p> <p>Final report and presentation 50%</p>
<p>Start Contract Date</p>	<p>Upon acceptance of the Supplier's Offer by the Customer or as agreed by DES</p>
<p>End Contract Date</p>	<p>30th June 2022</p>
<p>Extension Options</p>	<p>Not applicable</p>
<p>Section 3 - Evaluation of Offers</p>	

Quotes will be evaluated based on the following criteria:

- overall value for money over the whole-of-life the contract (including but not limited to ability to comply with requirements and to meet timeframes, and cost) and compliance with mandatory requirements.

Compliance with Mandatory Requirements

Evaluation Criteria 1: Demonstrated high level of expertise in coastal science, engineering and geomorphology, including sediment transport by waves and currents and geomorphic processes of barrier islands. Demonstrated specific knowledge of Bribie Island and environs coastal processes will be highly regarded.

Evaluation Criteria 2: Value for money over the whole-of-life the contract (including but not limited to ability to comply with requirements and to meet timeframes, and cost).

Evaluation Criteria 3: Proposed sound methodology to deliver on the scope of the work within the timeframe.

Evaluation Criteria 4: Demonstrated experience in delivering comprehensive but easy to understand technical papers and community presentations related to investigations of coastal processes and the coastal zone.

Section 4 - Supplier Response and Details

(Supplier must complete and sign this Section as part of its response to this RFQ)

Privacy Notice: The Client is collecting Personal Information from the Supplier for the purpose of administering the Invitation Process and Contract. Personal Information may be shared with Queensland Government agencies and bodies, non-government organisations and other governments in Australia for that purpose. Personal Information may be made publicly available in accordance with the requirements of the Queensland Government's procurement policy. An individual is able to gain access to Personal Information held by the Client about the individual in certain circumstances.

Supplier name and ABN/CAN

BMT Commercial Australia Pty Ltd ABN 54 010 830 421

Contact Person

sch4p4(6) Personal information

Address: Level 5, 348 Edward Street, Brisbane, QLD, 4000

Mandatory Requirements

Insurances

Do you agree to comply with the insurance requirements as specified below?

No **Yes** Supplier is to provide details of policies below.

Where the Supplier does not currently hold adequate insurance, a statement must be provided as to whether the Supplier is prepared to obtain the required insurances.

Workers Compensation

Workers Compensation Insurance in accordance with the Workers' Compensation and Rehabilitation Act 2003 (Qld)

Public Liability

Public Liability Insurance for a minimum of \$10 million in respect of each claim

Products Liability

Products Liability Insurance for a minimum of \$10 million in respect of each claim

Professional Indemnity

Professional Indemnity Insurance for a minimum of \$2 million in respect of each claim

Other Insurances

Not required

<p>Compliance with the Ethical Supplier Threshold</p> <p>Do you declare that you comply with the Queensland Government's Ethical Supplier Threshold?</p>	<p>No <input type="checkbox"/> Yes <input checked="" type="checkbox"/></p> <p>If no, insert details</p>
<p>Compliance with the Contract Conditions</p> <p>Do you agree to comply with the Contract Conditions specified in Section 1?</p>	<p>No <input type="checkbox"/> Yes <input checked="" type="checkbox"/></p>
<p>Conflict of Interest</p>	<p>Suppliers must give details of any possible Conflict of Interest that exists or may arise in relation to the making and/or acceptance of their quote. If there is nothing to declare, please insert "None".</p> <p>None</p>
<p>Local Supplier</p> <p><i>*In accordance with the definitions contained in the Queensland Procurement Policy (QPP), a local supplier maintains a workforce whose usual place of residency (i.e. where they normally reside) is located within a 125 kilometre (km) radius of where the goods/services are to be supplied.</i></p>	<p>Does the organisation identify as a Local Supplier?*</p> <p><input checked="" type="checkbox"/> Yes (within 125km) <input type="checkbox"/> No</p> <p>If No, do you identify yourself as being one of the following?</p> <p><input type="checkbox"/> Located within local region</p> <p><input type="checkbox"/> Queensland Business (main business location registered as Queensland with the Australian Business Register)</p> <p><input type="checkbox"/> Australian Business</p>
<p>Aboriginal and Torres Strait Islander Supplier (ATSI)</p>	<p>Does the organisation identify as an ATSI Supplier?*</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p><i>*In accordance with the definitions contained in the Queensland Indigenous Procurement Policy (QIPP), an Indigenous business is one that is at least 50 per cent owned by an Aboriginal person or Torres Strait Islander person.</i></p>
<p>Supplier Enterprise Type</p>	<p>Please select enterprise type below:</p> <p><input type="checkbox"/> Small Business [19 or less employees]</p> <p><input checked="" type="checkbox"/> Medium Business [between 20-199 employees]</p> <p><input type="checkbox"/> Large Business [200 or more employees]</p>
<p>Public Health Directives</p>	<p>Does the organisation agree to adhere to all current Public Health Directives?</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Department of Environment and Science COVID-19 Vaccination Requirements Policy and Procedure</p>	<p>Does the organisation agree to adhere to the Department of Environment and Science COVID-19 Vaccination Requirements Policy and Procedure?</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Department of Environment and Science COVID-19 Risk Management – Requirements to attend Department of Environment and Science facilities</p>	<p>Does the organisation agree to adhere to the Department of Environment and Science COVID-19 Risk Management – Requirements to attend Department of Environment and Science facilities Policy?</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>

<p>Authorisation and execution by Supplier</p> <p>This quote is submitted by the Supplier's authorised representative. By signing, the Supplier is offering to enter into a Contract on the terms set out in this document and the Conditions of Contract listed in Section 1.</p>	<p>As the authorised officer, I certify that:</p> <p>(a) I am authorised to submit the Supplier's response as the Supplier's representative.</p> <p>(b) The Supplier understands and has complied with the Requirements of the Request for Quote.</p> <p>(c) The Supplier's response is complete, accurate and not misleading in any way.</p>
	<p>Name: sch4p4(6) Personal information</p> <p>Position:</p> <p>Signature:</p> <p>Date: 3 May 2022</p>

Supplier Response to Requirements

Response to Evaluation Criteria

<p><i>Evaluation Criteria 1:</i> Demonstrated high level of expertise in coastal science, engineering, and geomorphology, including sediment transport by waves and currents and geomorphic processes of barrier islands. Demonstrated specific knowledge of coastal processes for Bribie Island and environs will be highly regarded.</p> <ul style="list-style-type: none"> • Provide an overview of the project personnel and list their qualifications, knowledge, skills, capability and experience. • Demonstrate by example, expertise in the fields of coastal science & engineering, oceanography, and data science and analysis. • Contributions to the field of coastal research. 	<p><i>Refer to Section 1 and 2 of attached material</i></p>
<p><i>Evaluation Criteria 2:</i> Value for money over the whole-of-life of the contract (including but not limited to ability to comply with requirements and to meet timeframes, and cost).</p> <ul style="list-style-type: none"> • Submitted price is a key metric • Explain how your services meet or exceed our requirements or provide a better quality solution 	<p><i>Refer to Section 3 of attached material</i></p>
<p><i>Evaluation Criteria 3:</i> Proposed sound methodology to deliver on the scope of the work within the timeframe.</p> <ul style="list-style-type: none"> • Describe how the Supplier will deliver the requirements • Demonstrate ability to identify and apply best practice techniques to science, engineering and data analysis projects. • Describe all significant risks associated with the deliverables and how you propose to mitigate them (prevent them from happening) and manage them (in an event that they do happen). 	<p><i>Refer to Section 4 of attached material</i></p>

Evaluation Criteria 4: Demonstrated experience in delivering comprehensive but easy to understand technical papers and community presentations related to investigations of coastal processes and the coastal zone.

- Provide examples

Refer to Section 4.4 of attached material

Pricing

Products Or Services Offered and Pricing Description

Supplier's Response

(attach brochures/attachments or other documentary evidence of compliance with requirement, if necessary)

Quantity

Unit Price (excl. GST)

GST Payable (per unit)

Total Price (incl. GST)

Inception Meeting

1

sch4p3(2) Prejudice affairs of entities

Desktop Review

1

Investigation of Postulated Causes

1

Reporting

1

*Please see table 3.2 in appendix for provisional items.

Delivery / Other Costs

\$ 0.00

Settlement Discount (if applicable) %Days

If no discount is offered, then the Customer's standard payment terms of 30 days shall apply

Supplier is a small business registered with the On Time Payment Small Business Register – payment terms are 20 days

sch4p3(2) Prejudice affairs of entities

sch4p3(2) Prejudice affairs of entities

\$ 17,781.50

Total Unit Price (excl. GST)

Total GST Payable

Total Price (incl. GST)

Schedule A – RFQ Conditions of Offer

1. Interpretation

These Invitation to Offer Conditions may be used where the Customer is seeking offers to enter into a Contract.

The Definitions and Interpretation (version 3.0 published December 2020) will apply to these Invitation to Offer Conditions, available via this [website](#).

2. Invitation process

2.1. Supplier acceptance

By participating in the Invitation Process, the Supplier accepts these ITO Conditions.

By submitting an offer, the Supplier offers to enter into a Contract with the Customer under which for Goods, Services and Deliverables and acknowledges that the Customer may accept the offer during the Offer Validity Period.

2.2. Customer discretion

The Customer may make any changes to the Invitation Process in its absolute discretion, by notifying the Supplier including by publication on the Queensland Government QTenders website where considered appropriate by the Customer. This may include:

- (a) adding the terms and conditions applicable to the Invitation Process, including terms of the ITO Conditions and/or proposed Contract;
- (b) adding or changing Requirements;
- (c) amending dates including extending the Closing date and time;
- (d) amending the evaluation criteria stipulated in the Invitation to Offer and/or
- (e) cancelling the Invitation Process.

Without limitation, the Customer may, during the Invitation Process:

- (a) consider, accept or reject an offer received after the Closing date and time;
- (b) consider, accept or reject non-Conforming Offers, alternative or innovative offers, offers in part, or multiple offers;
- (c) obtain information about the Supplier relevant to the evaluation criteria that may be held by any Government Department or Instrumentality and take the information into account in assessing the offer;

- (d) conduct checks on the Supplier with other Queensland Government departments and agencies, and Queensland Government Bodies;
- (e) reject any or all offers;
- (f) accept an offer that did not progress through all phases of the evaluation process;
- (g) amend the evaluation criteria stipulated in the Invitation to Offer document;
- (h) exercise discretion in evaluating any subjective evaluation criteria;
- (i) negotiate with one or more Suppliers and allow any Supplier to vary its offer;
- (j) interview, negotiate or hold discussions with any Supplier on any matter contained (or proposed to be contained) in an offer to the exclusion of others;
- (k) request some or all Suppliers to conduct site visits, provide references and additional information, and/or make themselves available for panel interviews;
- (l) change the terms and conditions applicable to the Invitation Process, including terms of the proposed Contract; or
- (m) conduct checks on the Supplier or request the Supplier to substantiate to the Customer's satisfaction information supplied by the Supplier during the Invitation Process.

The Supplier will not make any claim in connection with a decision by the Customer to exercise or not to exercise any of its rights in relation to the Invitation Process.

2.3. Contract structure

The Suppliers attention is drawn to the fact that the Customer reserves the right, at any time during the term of any Contract established as a result of this Invitation Process to:

- (a) engage other suppliers for the supply of the Goods, Services and other Deliverables the same or similar to the deliverables and
- (b) enter into Contracts with other suppliers for the supply of Goods, Services and Deliverables, notwithstanding that the other suppliers did not participate in the Invitation Process, for any reason, including if the Customer considers it is necessary or desirable to comply with government policy regarding diversity in supply chains, the

achievement of social objectives or in the interest of public health and safety.

2.4. Statistical and other relevant data

Statistical and other relevant data provided in this Invitation Process is not to be construed as a guarantee for providing any business whatsoever by the Customer. The Supplier shall make no claim for anticipated profit or for loss of profit because of any difference between the data provided to assist Suppliers in compiling an offer and the volume of goods or services actually required by the Customer and so provided by the Supplier during the period of the Contract.

2.5. No process contract

The conduct of the Invitation Process does not give rise to any legal or equitable relationship. A Supplier will not be entitled to claim compensation or loss from the Customer for any matter arising out of the Invitation Process, including but not limited to any failure by the Customer to comply with these ITO Conditions.

3. Alternative and/or innovative offers

The Queensland Procurement Policy promotes an outcome focussed approach, seeking opportunities to innovate and improve value for money. Suppliers are encouraged to submit alternative and/or innovative offers where they believe that the alternative will promote the Customer's objectives.

4. No reliance on information

The Supplier is responsible for making its own investigation and assessment about all matters relevant to the Invitation to Offer process, the Requirements, the accuracy of all information and documents provided by or on behalf of the Customer, and all other matters relevant to the Supplier's offer.

5. Supplier cost

Participation in the Invitation Process is at the Supplier's cost. The Customer is not required to pay compensation to the Supplier in relation to the Invitation Process in any circumstances, for any reason.

6. Subject to contract

No Contract will be formed between the Customer and the Supplier unless and until a contract is established in one of the ways identified in the Basic Purchasing Conditions

7. Compliance

The Supplier must:

- (a) **(communication)** direct all inquiries relating to the Invitation to Offer to the Customer's contact person, and not discuss this Invitation Process with any other person except as required to prepare its offer.
- (b) **(laws)** comply with all Laws, including the *Disability Discrimination Act 1992* (Cth), the *Human Rights Act 2019* (Qld), *Modern Slavery Act 2018* (Cth) and all Acts referenced in the Ethical Supplier Threshold and ensure that the Supplier's actions do not cause the Customer to breach any Laws.
- (c) **(confidentiality)** keep confidential all Confidential Information which it obtains as part of the Invitation Process, not use it except for the purpose of

responding to the Invitation to Offer, and not disclose it except to its Personnel on a need to know basis for the purpose of responding to the Invitation to Offer, or with the Customer's consent, or to the extent required by Law, or to its professional advisors.

- (d) **(privacy)** if it collects or has access to any Personal Information in connection with the Invitation Process, comply as if it was the Customer with the privacy principles in the Information Privacy Act or the Australian Privacy Principles in the Privacy Act, as applicable, in relation to that Personal Information, and comply with all reasonable directions of the Customer relating to the Personal Information.
- (e) **(no publicity)** not make any public announcements or advertisement relating to the Invitation Process.
- (f) **(competitive neutrality)** if the Supplier is a government owned business, local government, or Commonwealth, State or Territory or authority, price its offer to comply with the competitive neutrality principles of the Supplier's jurisdiction.
- (g) **(Personnel)** ensure that its Personnel also comply with these requirements.
- (h) **(insurances)** if required in Part B – Contract Details, the Supplier is to provide relevant and current insurance certificates with their offer. If requested after the closing date for offers, the Supplier is required to provide relevant and current insurance certificates within five (5) Business Days of the request from the Customer unless otherwise indicated by the Customer.

8. Warranties

8.1. Anti-competitive conduct

The Supplier warrants that neither it, nor its Personnel have engaged in, or will engage in, any collusive, anti-competitive or similar conduct in connection with the Invitation Process, or any actual or potential Contract with any entity for goods and services similar to the Goods and Services.

8.2. Conflict of interest

The Supplier warrants that neither it nor its Personnel have or are likely to have a Conflict of Interest in connection with this Invitation Process, except as disclosed in the Supplier's offer.

The Supplier warrants that it will not, and it will ensure that its Personnel do not, place themselves in a position that may give rise to a Conflict of Interest between the interest of the Customer and the Supplier's interests during the Invitation Process and the term of any Contract subsequently entered as a result of this Invitation Process.

If during the Invitation Process period, a Conflict of Interest arises, or appears likely to arise, the Supplier must notify the Customer immediately and take such steps to resolve or otherwise deal with the Conflict of Interest to the reasonable satisfaction of the Customer.

8.3. Criminal organisation

The Supplier warrants that the Supplier and, to the best of its knowledge and belief having made reasonable enquiries, its Personnel, have not been convicted of an offence under the Criminal Code in the *Criminal Code Act*

1899 (Qld) where one of the elements of the offence is that the person is a participant in a criminal organisation within the meaning of the Criminal Code.

8.4. Accuracy of information

The Supplier warrants that all representations, declarations, statements, information and documents made or provided by the Supplier (including its representatives) in connection with the Invitation Process ('**Supplier Information**') are complete, accurate, up-to-date and not misleading in any way.

8.5. Warranties are ongoing

The warranties in this section are provided as at the date of the Supplier's offer to the Invitation Process and on an ongoing basis until the later of the Customer notifying the Supplier that its offer has been rejected and expiry or termination of any Contract entered pursuant to the Invitation Process ("relevant period").

The Supplier warrants that it will immediately notify the Customer if it becomes aware that any warranty made in this section was inaccurate, incomplete, out of date or misleading in any way when made, or becomes inaccurate, incomplete, out of date or misleading in any way, during the relevant period.

8.6. Breach of warranty

In addition to any other remedies available to it under Law or contract, the Customer may, in its absolute discretion (but is not required to), immediately disqualify a Supplier from the Invitation Process, or terminate the Contract with the Supplier which is subsequently entered into as a result of the Invitation Process, where it believes the Supplier has breached any warranty in this clause.

9. Section 89 of the Criminal Code

Section 89 (1) of the Criminal Code in the *Criminal Code Act 1899* (Qld) makes it an offence for a person employed in the public service to knowingly acquire or hold, other than as a member of a registered joint stock company consisting of more than 20 persons, a private interest in a contract or agreement which is made on account of the public service with respect to any matter concerning the department of the service in which the person is employed. Section 89 (2) provides that the person does not commit an offence if, before the person acquires or starts to hold the private interest, the person discloses the nature of the

interest to the chief executive of the department for which they are employed and the chief executive authorises the person in writing, to hold or acquire the interest

For the purpose of this clause 9, an 'employee' is an individual who receives or is entitled to receive salary or wages through the payroll system of the Customer.

The Supplier warrants that it will not submit an offer which, if accepted, would result in an individual being in breach of section 89 of the Criminal Code 1899 (Qld).

10. Access and inspection

The Supplier must, on reasonable prior written notice from the Customer, give the Customer reasonable access to the Supplier's premises and to Supplier documentation, records and Personnel, to enable the Customer or a third party engaged by the Customer to verify:

- (a) the completeness and accuracy of information provided by the Supplier in connection with the Invitation Process; and

the Supplier's compliance with its obligations under these ITO Conditions

11. Supplier Confidential Information

The customer will keep confidential all Confidential Information of the Supplier which it obtains as part of the Invitation Process.

The customer may use Supplier Confidential Information for the purposes of the Invitation Process.

The customer may disclose Supplier Confidential Information:

- (a) to its personnel for the purposes of the Invitation Process;
- (b) as required under the Right to Information Act;
- (c) as required by Law;
- (d) to a Minister, their advisors or Parliament;
- (e) to its professional advisors.

The customer may publish information about the invitation process and any resulting Contract on the [Open Data Portal](#), [QTenders](#), and/or [Queensland Contracts Directory](#), or wherever required or recommended by Queensland Procurement Policy

Short Form – Contract Details

DES122628 – Review of the causes of erosion on northern Bribie Island

For the provision of Goods and/or Services

NOTE TO SUPPLIERS

The below Short Form Contract Details/Order must be read in conjunction with the Queensland Government's Basic Purchasing Conditions located via <https://www.forgov.qld.gov.au/general-goods-and-services-templates> – under 'Contracts and Conditions' and The Department of Environment and Science COVID-19 Vaccination Requirements Policy and Procedure will apply to the contract formed with the successful Supplier

The Department of Environment and Science COVID-19 Risk Management – Requirements to attend Department of Environment and Science facilities will apply to the contract formed with the successful Supplier.

Item	Information	Details
1.	Customer	<p>Name: State of Queensland (acting through the Department of Environment and Science)</p> <p>ABN/ACN: 46 640 294 485</p> <p>Address: GPO Box 2454 BRISBANE, QLD, 4001</p> <p>Name: Sel Sultmann</p> <p>Telephone: 07 3330 5768</p> <p>Email: Sel.Sultmann@des.qld.gov.au</p>
2.	Supplier	<p>Name: BMT Commercial Australia Pty Ltd</p> <p>ABN/ACN: 54 010 830 421</p> <p>Address: Level 5, 348 Edward Street, Brisbane, QLD, 4000</p> <p>Telephone: sch4p4(6) Personal information</p> <p>Email: sch4p4(6) Personal information</p> <p>Contact Person: sch4p4(6) Personal information</p>
3.	Contract Term	<p>Commencement Date: 20 June 2022</p> <p>Completion Date: 19 August 2022</p> <p>Extensions: Not applicable</p>
4.	Additional Provisions	Not Applicable
5.	Approved Expenses	Not Applicable

6.	Goods and/or Services	Refer to Schedule 1 – Specification for detailed requirements				
7.	Price	Products Or Services Offered And Pricing Description	Supplier's Response			
		<i>(attach brochures/attachments or other documentary evidence of compliance with requirement, if necessary)</i>	Quantity	Unit Price (excl. GST)	GST Payable (per unit)	Total Price (incl. GST)
		Inception Meeting	1	sch4p3(2) Prejudice affairs of entities		
		Desktop Review	1			
		Investigation of Postulated Causes (up to 8 causes)	1			
		Reporting	1			
		Expanded expert panel (optional)	1			
Community Presentation (optional)	1					
		Delivery / Other Costs		\$0.00		
Settlement Discount (if applicable) %Days		<input type="checkbox"/> sch4p3(2) Prejudice affairs of entities	<input type="checkbox"/> sch4p3(2) Prejudice affairs of entities	\$22456.50		
If no discount is offered, then the Customer's standard payment terms of 30 days shall apply		Total Unit Price (excl. GST)	Total GST Payable	Total Price (incl. GST)		
<p>Pricing details:</p> <p>Payment for the described above will be made via EFT within 30 days upon receipt of a Correctly Rendered Tax Invoice. The Supplier is to provide its bank details to the Customer prior to the commencement date of this Contract. In the event that this Contract is terminated, the Customer shall pay the Supplier all monies due up to the date of termination.</p> <p><input type="checkbox"/> Supplier is a small business registered with the On Time Payment Small Business Register – payment will be made via EFT within 20 days upon receipt of a Correctly Rendered Tax Invoice.</p>						
8.	Delivery Date / Delivery Period	19 Aug 2022				
9.	Provision of Goods	The Goods are to be in new and unused condition and of recent origin.				
10.	Intellectual Property Rights	As per the Basic Purchasing Conditions				
11.	Workers compensation					

12.	<p>insurance</p> <p>Insurance – Public Liability</p> <p>Public liability insurance covers liability for personal injury and property damage.</p>	<p>As required by Law.</p> <p>Sum Insured: sch4p3(2) Prejudice affairs</p> <p>Policy No.: sch4p3(2) Prejudice affairs of entities</p> <p>Insurance Provider: sch4p3(2) Prejudice affairs of entities</p> <p>Named Insured: sch4p3(2) Prejudice affairs of entities</p> <p>Expiry Date of Policy: 31st October 2022</p>
13.	<p>Insurance - Other insurances</p> <p>Is any other insurance required? (e.g. Professional Indemnity insurance)</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>If “Yes” then please specify the following:</p> <p>Type of insurance: Products Liability</p> <p>Sum Insured: sch4p3(2) Prejudice affairs of entities</p> <p>Policy No: sch4p3(2) Prejudice affairs of entities</p> <p>Insurance Provider: sch4p3(2) Prejudice affairs of entities</p> <p>Named Insured: sch4p3(2) Prejudice affairs of entities</p> <p>Expiry Date of Policy: 31st October 2022</p> <p>Type of insurance: Professional Indemnity</p> <p>Sum Insured: sch4p3(2) Prejudice affairs of entities</p> <p>Policy No: sch4p3(2) Prejudice affairs of entities</p> <p>Insurance Provider: sch4p3(2) Prejudice affairs of entities</p> <p>Named Insured: sch4p3(2) Prejudice affairs of entities</p> <p>Expiry Date of Policy: 31 October 2022</p>
	<p>If Professional Indemnity Insurance is required, then the following must be completed:</p> <p>Is the Professional Indemnity insurance to be maintained for an alternative period? (i.e. other than four years after the completion or termination of the Contract)</p> <ul style="list-style-type: none"> If “Yes” then specify the alternative period <p>Is the Supplier a member of a scheme approved under the</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Alternative Period: N/A</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>

	Professional Standards Act 2004 (Qld)? <ul style="list-style-type: none"> If “Yes” please specify and attach a copy of the applicable scheme. 	
14.	Public Health Directives	The organisation agrees to adhere to all current Public Health Directives? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
15.	Department of Environment and Science COVID-19 Vaccination Requirements Policy and Procedure	The organisation agrees to adhere to the Department of Environment and Science COVID-19 Vaccination Requirements Policy and Procedure? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
16.	Department of Environment and Science COVID-19 Risk Management – Requirements to attend Department of Environment and Science facilities	The organisation agrees to adhere to the Department of Environment and Science COVID-19 Risk Management – Requirements to attend Department of Environment and Science facilities Policy? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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Schedule 1 – Specification – DES122628 – Review of the causes of erosion on northern Bribie Island

1. BACKGROUND/SCOPE	
<p>Bribie Island is a barrier island approximately 34km in length located in Southeast Queensland, Australia. It provides protection for Golden Beach and Pelican Waters on the western side of Pumicestone Passage from the higher wave energy environment of Moreton Bay. The northern end of Bribie Island consists of a 5 km narrow spit like sand barrier, which has experienced a long-term trend of erosion and has narrowed by up to 120m since 1940.</p> <p>In January 2022 the Northern section of Bribie Island experienced significant erosion caused by unusually high tides and large waves associated with Cyclone Seth. The erosion caused by this weather system resulted in wave wash-over of the dunes and a tidal breakthrough of the island, forming a new tidal entrance approximately 400m wide. This event is not the first-time storm waves have caused severe erosion on Bribie Island with notable recent events being in December 2020 and during ex Severe Tropical Cyclone Oswald in 2013.</p> <p>The breakthrough has generated substantial community concern and raised questions regarding the causes of the erosion which resulted in the breakthrough event. The Department of Environment and Science (DES) is of the view, based on available evidence, that the erosion is a natural process caused by a sand supply deficit at the eastern coast with more sand being moved north and south, and into Pumicestone Passage, than is being supplied to the coast. However, some in the community believe erosion is due to human induced causes rather than natural coastal process.</p> <p>Postulated causes of island erosion includes (but not limited to):</p> <ol style="list-style-type: none"> 1. Storm events, tidal currents and other natural coastal processes. 2. Dredging at Spitfire Channel near Cowan Cowan on Moreton Island, and the central bay generally, to extract sand for building and construction purposes. 3. Dredging of the navigation channel approximately 1km offshore from northern Bribie Island by Port of Brisbane. 4. The historical development of Lamerough Canal at southern Golden Beach which is believed to be exacerbating erosion of the western shore of Bribie Island by outflow flow from the canal pushing the main tidal channel against Bribie Island. 5. Ship wake from the commercial shipping using the adjacent navigation channel. <p>DES proposes to engage an independent technical expert to examine available information and investigate potential causes of erosion at Bribie Island with respect to physical credibility and coastal processes science. The reviewer is required to deliver a Technical Review Paper as well as a presentation to departmental staff and community forum on the findings.</p>	
2. TECHNICAL/FUNCTIONAL REQUIREMENTS	
<p>Requirements / Scope of Work</p>	<p>The Department of Environment and Science is seeking an understanding of the cause or causes of the erosion trend of northern Bribie Island to ensure the communities concerns about a possible human induced cause are fully considered and to guide any future management approach. This is particularly relevant to the recent tidal breakthrough of the island caused by the erosion and therefore whether this can be confirmed as a natural process or if there is a human induced cause in full or part.</p> <p>The work required will include examining causes of erosion postulated by the community and identifying if these could be a contributing cause, and to what</p>

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	<p>extent. This study shall be based on existing data, information and coastal science/engineering/geomorphic analysis and should include recommendations for future study and data capture if necessary to confirm or better understand a specific cause of erosion.</p> <p>The objectives of the project are to:</p> <ul style="list-style-type: none"> • Investigate postulated causes of island erosion (up to 8 causes), including potential human induced cause, based on available data and information; • Identify if the postulated causes of erosion; <ul style="list-style-type: none"> ○ have merit (are physically credible, are supported by data or coastal science theory), ○ can be accepted as a causal factor for erosion and to what extent, ○ identify data or information gaps. • Identify further study, monitoring and investigations required to provide certainty for a robust understanding of erosion causes. <p>Exclusions:</p> <p>No coastal modelling is required</p> <p>No additional data collection is envisioned</p> <p>Note: processing and manipulation of existing data to better understand the causes of erosion is within scope.</p> <p>Available documentation and data:</p> <p>Available reference materials includes, but is not limited to, the following:</p> <ul style="list-style-type: none"> - Wave and tide data, Caloundra wave buoy and tide gauge Golden Beach Potentially data from + 3 temporary tide gauges - Previous prepared reports - Qld Globe imagery (available online) and potentially hard copy historic imagery - Geo-referenced aerial imagery from about 2009 - Satellite imagery (can be provided by DES Remote Sensing Centre upon engagement) - High resolution digital elevation models from about 2011 - EPP approvals for dredging (incl. supporting documents) - Reports prepared or commissioned by DES – full list to be provided. - Recent navigation channel bathymetric survey near northern Bribie Island provided by Port of Brisbane. - UAV surveys (conducted on the 30/09/2020, 22/04/2021, 1/09/2021) - Historical data sets for the 3 temporary tide gauges: 1993 <p>DES has previously examined ship wake from wave buoy data at Caloundra, this data can be provided as well as the analysis, also see attached technical paper. Three temporary tide gauges are being installed at the Skids, Hussey Creek and Halls Creek Mouth to monitor the tidal regime. Those sites have previously recorded tidal data in 1993.</p> <p>Inception meeting</p> <p>The consultant will arrange and facilitate an inception meeting with the DES project officer and representatives. The intent of this meeting is to clarify and agree on key requirements of the project including methodology to undertake the full scope of the project. Key themes of the meeting will include but not to be</p>
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	<p>limited to the following:</p> <ul style="list-style-type: none"> • General discussion on the postulated causes of erosion • Expected outcomes and objectives of this engagement • Questions regarding available data and reports • Methodology for the report • Program of work with proposed milestones and deadlines and DES project officer involvement/ review • Roles and responsibilities of the project team • Arrangements for progressive reporting to DES project officer • Confirmation of requirements <p>The consultant is to prepare and circulate meeting minutes to all attendees for review and confirmation within 5 business days after the meeting.</p> <p>Review existing data and documents + literature review</p> <p>The consultant is to undertake a review and desktop analysis of:</p> <ul style="list-style-type: none"> - Current and past information about Bribie Island and human interventions in the area that could potentially cause erosion - Local coastal processes studies - Data sets: tide, waves, bathymetry, imagery, and analysis if required - Other studies relevant to the area and topic <p>The reference material available is extensive and this study should rely on previous work and obtained datasets where appropriate. The consultant should further collate, analyse and contextualise historical data if required to establish links to potential causes of erosion at Bribie Island.</p> <p>References should be provided for other literature that may be used.</p> <p>Analysis of the postulated causes of erosion</p> <p>Analyses information and data to derive an insight into the causes of erosion, relative scale of contribution of any specific cause, and for all postulated causes provide an opinion as to the veracity or likelihood with respect to physical coastal processes and observed erosional trends. The opinion should also provide reasons why a postulated cause of erosion could not contribute to the observed erosion of Bribie Island (i.e., pros and cons).</p> <p>Conclusions and recommendations</p> <p>The report is required to provide:</p> <ul style="list-style-type: none"> • an opinion on the cause/causes of the erosion trend on northern Bribie Island which has led to the tidal breakthrough, and on the postulated erosion causes generally • recommendations on further data collection or investigations considered necessary to improve certainty in our understanding of the erosion cause
<p>Key Deliverables and Milestones (if applicable)</p>	<p>Deliverables:</p> <p>Report and Presentations</p> <ul style="list-style-type: none"> • Briefing of the report results for DES staff • A technical paper summarising investigations and providing findings and recommendations • A synthesis paper for community consultation • Presentation of the results for a community group and assume delivery at Caloundra. Covid restrictions will be assessed at the time. (Optional to be decided by the customer). <p>All submitted and supporting documents and reports delivered in .pdf format as</p>

	<p>well as original and editable native electronic formats.</p> <p>Presentations to be prepared in PowerPoint and handouts in .pdf format.</p> <p>Milestones and payment schedule:</p> <p>Draft report 50%</p> <p>Final report and presentation 50%</p>
Delivery address (if applicable)	GPO Box 2454 BRISBANE, QLD, 4001

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Evaluation Matrix - Individual Score Worksheet
 Procurement Activity ID **DES122628**

Evaluation Panel Member: **[Insert panel member name]**

	Rating (0-10)	Key Dot Points to Justify Individual Ratings
Offeror 1 - BMT Commercial Australia Pty Ltd		
Criteria 1	Demonstrated expertise	Highly experienced team. Depth of experience with Moreton Bay and Pumicestone Passage on related issues.
Criteria 2	Value for Money	Lowest price, very high value for money. Potentially some additions for publishing. Quick turn around.
Criteria 3	Methodology	Comprehensive and robust methodology, missing shoreline evolution model. Provided a project plan and timeline
Criteria 4	Past experience	Highly experienced team. Depth of experience with Moreton Bay and Pumicestone Passage on related issues.

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Departments contribution to shipwake.
 Conceptual model
 sand movement animations.

Description	Definition	Rating
Excellent	Exceeds the requirement. Exceptional demonstration by the supplier of the relevant ability, understanding, experience, skills, resource and quality measures required to provide the goods/services. Response identifies factors that will offer potential added value, with supporting evidence.	9-10
Good	Satisfies the requirement with minor additional benefits. Above average demonstration by the supplier of the relevant ability, understanding, experience, skills, resource and quality measures required to provide the goods/services. Response identifies factors that will offer potential added value, with supporting evidence.	7-8
Acceptable	Satisfies the requirement. Demonstration by the supplier of the relevant ability, understanding, experience, skills, resource and quality measures required to provide the goods/services, with supporting evidence.	5-6
Minor reservations	Satisfies the requirement with minor reservations. Some minor reservations of the supplier's relevant ability, understanding, experience, skills, resource and quality measures required to provide the goods/services, with little or no supporting evidence.	3-4
Serious reservations	Satisfies the requirement with major reservations. Considerable reservations of the supplier's relevant ability, understanding, experience, skills, resource and quality measures required to provide the goods/services, with little or no supporting evidence.	1-2
Unacceptable	Does not meet the requirement. Does not comply and/or insufficient information provided to demonstrate that the supplier has the ability, understanding, experience, skills, resource and quality measures required to provide the goods/services, with little or no supporting evidence.	0

Criterion	Weighting
Technical merit (fit for purpose)	25%
Demonstrated high level of expertise in coastal science, engineering and geomorphology, including sediment transport by waves and currents and geomorphic processes of barrier islands. Demonstrated specific knowledge of Bribie Island and environs coastal processes will be highly regarded.	
Value for Money	25%
Value for money over the whole-of-life the contract (including but not limited to ability to comply with requirements and to meet timeframes, and cost).	
Methodology	25%
Proposed sound methodology to deliver on the scope of the work within the timeframe.	
Past Experience	25%
Demonstrated experience in delivering comprehensive but easy to understand technical papers and community presentations related to investigations of coastal processes and the coastal zone.	
Total weightings	100%

Evaluation Matrix - Individual Score Worksheet

Procurement Activity ID **DES122628**

Evaluation Panel Member: **Paul Boswood**

Rating (0-10)	Key Dot Points to Justify Individual Ratings	
Offeror 1 - BMT Commercial Australia Pty Ltd		
Criteria 1	Technical Merit (fit for purpose)	Strong team with varied expertise in coastal processes and coastal management. Have been involved in a number of studies that could be directly related to this project. Pro: have also offered an additional option of UQ academics on the Tech Panel which would strengthen the team.
Criteria 2	Value for Money	Price well below the planned budget and other applicants. Most likely due to the high level of corporate knowledge. Have done a lot of work in the study area. Complies with requirements except to a proposed change to Contract Conditions and a limit of 8 postulated causes. Quote does not include desktop published fact sheets which may be required for synthesis paper for community consultation. RFQ complied with closing date, but delays with assessment may now delay finished date into July. Has a Quality Management System.
Criteria 3	Methodology	Methodology is detailed and well thought out. Covers the requirements set out in the RFQ and allows for consideration of further possible causes.
Criteria 4	Past experience	Refers to previous studies and consultation for other Sunshine Coast projects

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Description	Definition	Rating
Excellent	Exceeds the requirement. Exceptional demonstration by the supplier of the relevant ability, understanding, experience, skills, resource and quality measures required to provide the goods/services. Response identifies factors that will offer potential added value, with supporting evidence.	9-10
Good	Satisfies the requirement with minor additional benefits. Above average demonstration by the supplier of the relevant ability, understanding, experience, skills, resource and quality measures required to provide the goods/services. Response identifies factors that will offer potential added value, with supporting evidence.	7-8
Acceptable	Satisfies the requirement. Demonstration by the supplier of the relevant ability, understanding, experience, skills, <u>resource</u> and quality measures required to provide the goods/services, with supporting evidence.	5-6
Minor reservations	Satisfies the requirement with minor reservations. Some minor reservations of the supplier's relevant ability, understanding, experience, skills, <u>resource</u> and quality measures required to provide the goods/services, with little or no supporting evidence.	3-4
Serious reservations	Satisfies the requirement with major reservations. Considerable reservations of the supplier's relevant ability, understanding, experience, skills, <u>resource</u> and quality measures required to provide the goods/services, with little or no supporting evidence.	1-2
Unacceptable	Does not meet the requirement. Does not comply and/or insufficient information provided to demonstrate that the supplier has the ability, understanding, experience, skills, resource and quality measures required to provide the goods/services, with little or no supporting evidence.	0

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Criterion	Weighting
Technical merit (fit for purpose)	25%
Demonstrated high level of expertise in coastal science, <u>engineering</u> and geomorphology, including sediment transport by waves and currents and geomorphic processes of barrier islands. Demonstrated specific knowledge of Bribie Island and environs coastal processes will be highly regarded.	
Value for Money	25%
Value for money over the whole-of-life the contract (including but not limited to ability to comply with requirements and to meet timeframes, and cost).	
Methodology	25%
Proposed sound methodology to deliver on the scope of the work within the timeframe.	
<u>Past Experience</u>	25%
Demonstrated experience in delivering comprehensive but easy to understand technical papers and community presentations related to investigations of coastal processes and the coastal zone.	
Total weightings	100%

Release

Evaluation Matrix - Individual Score Worksheet
 Procurement Activity ID **DES122628**

Evaluation Panel Member: **Georgia Keeshan**

	Rating (0-10)	Key Dot Points to Justify Individual Ratings
Offeror 1 - BMT Commercial Australia Pty Ltd		
Criteria 1 Technical Merit (fit for purpose)	8	Excellent technical merit both as coastal investigators but also for their knowledge of Bribie
Criteria 2 Value for Money	9	Cheapest solution and have said they will utilise some of their existing models
Criteria 3 Methodology	9	good flow chart and lit review, nice way to package information and should help with community consultation. Deliverables are not exactly in keeping with RFQ but close. Best methodology of the lot
Criteria 4 Past experience	8	Has lots of experience in delivering community engagement - I have been to one with personally

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sch4p4(6) Personal information

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Description	Definition	Rating
Excellent	Exceeds the requirement. Exceptional demonstration by the supplier of the relevant ability, understanding, experience, skills, resource and quality measures required to provide the goods/services. Response identifies factors that will offer potential added value, with supporting evidence.	9-10
Good	Satisfies the requirement with minor additional benefits. Above average demonstration by the supplier of the relevant ability, understanding, experience, skills, resource and quality measures required to provide the goods/services. Response identifies factors that will offer potential added value, with supporting evidence.	7-8
Acceptable	Satisfies the requirement. Demonstration by the supplier of the relevant ability, understanding, experience, skills, resource and quality measures required to provide the goods/services, with supporting evidence.	5-6
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Criterion	Weighting
Technical merit (fit for purpose)	25%
Demonstrated high level of expertise in coastal science, engineering and geomorphology, including sediment transport by waves and currents and geomorphic processes of barrier islands. Demonstrated specific knowledge of Bribie Island and environs coastal processes will be highly regarded.	
Value for Money	25%
Value for money over the whole-of-life the contract (including but not limited to ability to comply with requirements and to meet timeframes, and cost).	
Methodology	25%
Proposed sound methodology to deliver on the scope of the work within the timeframe.	
Past Experience	25%
Demonstrated experience in delivering comprehensive but easy to understand technical papers and community presentations related to investigations of coastal processes and the coastal zone.	
Total weightings	100%

Evaluation Criteria and Scoring Summary
Procurement Activity ID [Insert Number]

NOTE: Do not include cost as a weighted evaluation criteria as the Cost Effectiveness Ratio will be calculated at the end of this worksheet. Delete or add offeror rows if required (i.e. if there are only 4 offerors, delete rows 42-49 for Offeror 5). DO NOT CHANGE SHADED CELLS IN THIS SPREAD SHEET. Record panels agreed strengths, weaknesses and risks of each offer in "Comments" column to justify/ support the rating

EVALUATION CRITERIA	PANEL MEMBERS RATING			AGREED MODERATE D RATING	WEIGHTING (%)	WEIGHTED SCORE	SUPPORTING COMMENTS	SUMMARY OF OVERALL COMMENTS
	Panel member A Paul Boswood	Panel member B Sel Sultmann	Panel member C Georgia Keeshan					
Offeror 1 - BMT Commercial Australia Pty Ltd								
Evaluation Criteria 1 Technical Merit (fit for purpose)	9	9	8	9	25	225	<p>Strong team with varied expertise in coastal processes and coastal management. Have been involved in a number of studies that could be directly related to this project. Pro: have also offered an additional option of UQ academics on the Tech Panel which would strengthen the team.</p> <p>Price well below the planned budget and other applicants. Most likely due to the high level of corporate knowledge. Have done a lot of work in the study area. Complies with requirements but has a limit of 8 postulated causes. Quote does not include desktop published fact sheets which may be required for synthesis paper for community consultation, RFQ complied with closing date, but delays with assessment may now delay finished date into July. Has a Quality Management System.</p> <p>Methodology is detailed and well thought out. Covers the requirements set out in the RFQ and allows for consideration of further possible causes.</p> <p>Highly experienced team. Depth of experience with Moreton Bay and Pumicestone Passage on related issues. Has lots of experience in delivering community engagement</p>	
Evaluation Criteria 2 Value for Money	8	9	9	9	25	225		
Evaluation Criteria 3 Methodology	9	9	9	9	25	225		
Evaluation Criteria 4 Past experience	7	9	8	8	25	200		
TOTAL WEIGHTED SCORE						875		
OFFER PRICE \$						\$22,456.50		

Description	Definition	Rating
Excellent	Exceeds the requirement. Exceptional demonstration by the supplier of the relevant ability, understanding, experience, skills, resource and quality measures required to provide the goods/services. Response identifies factors that will offer potential added value, with supporting evidence.	9-10
Good	Satisfies the requirement with minor additional benefits. Above average demonstration by the supplier of the relevant ability, understanding, experience, skills, resource and quality measures required to provide the goods/services. Response identifies factors that will offer potential added value, with supporting evidence.	7-8
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Criterion	Weighting
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Value for money over the whole-of-life the contract (including but not limited to ability to comply with requirements and to meet timeframes, and cost).	
Methodology	25%
Proposed sound methodology to deliver on the scope of the work within the timeframe.	
Past Experience	25%
Demonstrated experience in delivering comprehensive but easy to understand technical papers and community presentations related to investigations of coastal processes and the coastal zone.	
Total weightings	100%

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Final Rankings

Note: This table below will automatically populate based on the information and scores entered above.

Offeror	Total Weighted Score	Offer Price	CE Ratio*	Final Evaluation Ranking
Offeror 1 - BMT Commercial Australia Pty Ltd	875.00	\$22,456.50	25.66	1
sch4p3(2) Prejudice affairs of entities				2
				3

* Cost Effectiveness Ratio = Offer Price / Total Weighted Score
* The Lower the Cost Effectiveness Ratio the more cost effective the solution.

Streamlined Evaluation Decision

DES122628 - Review of the causes of erosion on northern Bribie Island

What we are buying and why

Key information	Detail
Background:	<p>In January 2022 the Northern section of Bribie Island experienced significant erosion resulting in wave wash-over of the dunes and a tidal breakthrough of the island, forming a new tidal entrance approximately 400m wide. The breakthrough has generated substantial community concern and raised questions regarding the causes of the erosion which resulted in the breakthrough event. The Department of Environment and Science (DES) is of the view, based on available evidence, that the erosion is a natural process caused by a sand supply deficit at the eastern coast with more sand being moved north and south, and into Pumicestone Passage, than is being supplied to the coast. DES proposes to engage an independent technical expert to examine available information and investigate potential causes of erosion at Bribie Island with respect to physical credibility and coastal processes science.</p>
Short description of goods/services:	<p>The Department of Environment and Science is seeking an understanding of the cause or causes of the erosion trend of northern Bribie Island to ensure the communities concerns about a possible human induced cause are fully considered and to guide any future management approach. This is particularly relevant to the recent tidal breakthrough of the island caused by the erosion and therefore whether this can be confirmed as a natural process or if there is a human induced cause in full or part.</p> <p>The work required will include examining causes of erosion postulated by the community and identifying if these could be a contributing cause, and to what extent. This study shall be based on existing data, information and coastal science/engineering/geomorphic analysis and should include recommendations for future study and data capture if necessary to confirm or better understand a specific cause of erosion.</p> <p>The objectives of the project are to:</p> <ul style="list-style-type: none"> • Investigate postulated causes of island erosion, including potential human induced cause, based on available data and information; • Identify if the postulated causes of erosion; <ul style="list-style-type: none"> o have merit (are physically credible, are supported by data or coastal science theory), o can be accepted as a causal factor for erosion and to what extent, o identify data or information gaps. • Identify further study, monitoring and investigations required to provide certainty for a robust understanding of erosion causes. <p>No coastal modelling is required</p> <p>No additional data collection is envisioned</p>

Release

	<p>Deliverables:</p> <p>Report and Presentations</p> <ul style="list-style-type: none"> • Briefing of the report results for DES staff • A technical paper summarising investigations and providing findings and recommendations • A synthesis paper for community consultation • Presentation of the results for a community group and assume delivery at Caloundra. Covid restrictions will be assessed at the time. Please cost this item separately as the delivery mechanism is not confirmed. <p>All submitted and supporting documents and reports delivered in .pdf format as well as original and editable native electronic formats.</p> <p>Presentations to be prepared in PowerPoint and handouts in .pdf format.</p> <p>Milestones and payment schedule:</p> <p>Draft report 50%</p> <p>Final report and presentation 50%</p>
Contract Arrangements	This engagement will be formalised through the attached Short Form-Contract Details (Attachment 1) and governed by the Queensland Government Basic Purchasing Conditions.
Contract Value:	\$22,457 (including GST) including community presentation and expanded expert panel of UQ academics
Budget Confirmation	<p>Procurement funding (up to award of contract) is available within existing SDK Executive Director budget for this procurement, cost centre 1001004.</p> <p>Funding for the contract is available within existing Coastal Planning budget for this procurement, cost centre 1001898.</p>

Request for Quotes and Summary of Offers

Requests for Quotes were issued to the market through an open approach.

Offers were received from the following suppliers:

Supplier	Passed mandatory conditions stage?
BMT Commercial Pty Ltd	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
sch4p3(2) Prejudice affairs of entities	

Evaluation

Offers were evaluated by the following Evaluation Panel:

Evaluation Panel Chair	Paul Boswood, Principal Engineer, QGHL, DES
Evaluation Panel Member	Sel Sultmann, Principal Coastal Scientist, DES
Evaluation Panel Member	Georgia Keeshan, Principal Coastal Engineer, Sunshine Coast Council

Shortlisted Suppliers – qualitative score and price summary

Offeror	Total Weighted Score	Price	CE Ratio	Commentary	Final Evaluation Ranking
BMT Commercial Australia Pty Ltd	875	\$22,456.50	25.66	The offer represents high value for money. Considerably cheaper than other offers. A strong team with experience in studies that could directly relate to this project. A well thought out methodology covering the requirements. Lots of experience in delivering community engagement.	1
sch4p3(2) Prejudice affairs of entities					2
					3

Refer to Attachment 2 for details of evaluation, including full assessment panel evaluation.

Suppliers excluded from shortlist

Supplier	Reason for exclusion
NIL	

Recommendation

BMT Commercial Australia Pty Ltd is recommended as preferred supplier(s) for this contract. The basis for this decision is: [insert detail considering qualitative and price information].

By awarding the contract to BMT Commercial Australia Pty Ltd the following QPP targets and objectives will be achieved:

- Local Supplier (within 125km of where goods/services are to be supplied) Indigenous Business
- Queensland SME Queensland Regional Business Queensland Business Social Enterprise
- Buy Queensland First Food & Beverage Ending Domestic and Family Violence
- Local Benefit – [specify] Indigenous Benefit – [specify] Social benefit – [specify]

The following due diligence checks have been made on the recommended supplier [examples only – add or remove as necessary]:

- Legal advice sought and risk assessment undertaken (Attachment 3).

In summary, BMT Commercial Australia Pty Ltd is best suited to meet departmental requirements for achieving value for money. It is therefore recommended that the contract(s) is awarded to BMT Commercial Australia Pty Ltd.

The supplier has requested departures to the Basic Purchasing Conditions. sch3(7) Information subject to legal professional privilege
sch3(7) Information subject to legal professional privilege

sch4p3(2) Prejudice affairs of entities

Evaluation Endorsement

We confirm that the approved Procurement Plan and probity practices have been followed in this procurement process.

Evaluation Panel Chair/ Evaluating Officer	Paul Boswood	Signature	Date
Evaluation Panel Member	Sel Sultmann	sch4p4(6) Personal information	9/06/2022
Evaluation Panel Member	Georgia Keeshan		9/06/2022
			09/06/2022

Procurement Endorsement

Procurement Officer	
Endorsement:	I certify that this evaluation was undertaken in accordance with the approved Procurement Plan, Queensland Procurement Policy 2021 and the DES Procurement Framework.
Name and Position:	Mitch Whatley, Senior Procurement Officer
Procurement Certification Level:	2
Signature:	sch4p4(6) Personal information
Date:	15/06/2022

Approval to Award Contract

Financial Delegate	
Approval:	I confirm that there is approved budget allocated and approve award of the contract to the recommended supplier, for this procurement requirement.
Name and Position:	Celine Roux, Science Leader
Financial Delegation:	4
Signature:	sch4p4(6) Personal information
Date:	15/06/2022
Comments	NIL