

Extraction of ship wake information from wave buoy records.

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Abstract

The characteristics of ship wake have been well defined through studies into the contribution of ship wake to environmental pollution and environmental damage. Specific focus has been on the impacts of vessel traffic on local shoreline erosion. The value of ship wake information is not confined to the impacts on environmental pollution and damage and may potentially be utilised for other purposes such as: maritime safety; vessel monitoring; and turbidity monitoring. The identification of ship wake within water surface and velocity measurements has helped improve understanding of the characteristics of ship wake particularly within low energy environments. As international shipping movements generally occur within the more exposed open ocean shipping channels and lanes there is a need to quantify ship wake in high energy environments, this has had less attention. This paper assesses the suitability of using current methods of ship wake extraction from high frequency wave buoy data collected near high traffic shipping channels in Queensland. The long-term wave record is used to quantify the similarities and differences between ship wake and the background wave climate.

Keywords: ship wake, wave buoy.

1. Introduction

The impact of ship generated wake on aquatic ecosystems [17], coastal environments [20][9][7][26] and as a source of environmental pollution [5][6] have been well documented. Studies that focus on the contribution of ship wake to environmental pollution and environmental damage investigate the impacts of vessel traffic on local shoreline erosion [7][21]. The value of ship wake information extends beyond evaluating the impacts of environmental damage and pollution. Ship wake information has potential to be utilised for other purposes. Detecting wake waves of passing vessels could be used as: an aid in avoidance of navigation accidents [3], monitoring of illegal activities [6][2] including illegal fishing [12], and monitoring turbidity [18].

The basic characteristics of ship wake waves have been known for some time [28]. Lord Kelvin first presented a theory to account for ship wake waves [14]. The identification of ship wake waves within sea surface and water velocity measurements [21] has helped improve understanding of the characteristics of ship wake. Ship wake waves have been detected in water surface measurements taken by subsurface instruments such as; pressure sensors [24], capacitance gauges [21], Acoustic Doppler Current Profilers (ADCP) [18], ultrasonic echo sounders [11] and Acoustic Wave and Current (AWAC) sensors [7].

Ship wake waves have been detected within datasets of water surface elevation [16] and current velocity from these instrument's [19] time series. However, the information is limited to parameters such as wake wave amplitude and wake duration. The interpretation of the ship wake signal from the power spectrum of measured waves was first

suggested by Tuck et al. [28] and used by Wyatt D. and Hall R. [29]. This has led to ship wake wave analysis by time frequency techniques [27]. Visual presentation of measured ship wake data using Time Frequency Representation (TFR), or more commonly termed spectrograms, has extended our understanding of ship wake characteristics. The use of spectrograms to measure ship wake is thoroughly discussed by numerous authors [24][25][5][22].

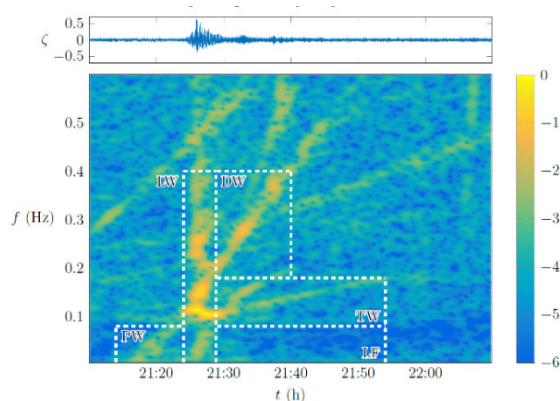


Figure 1 Spectrogram of the signal generated by a high-speed ferry in the Gulf of Finland. The five wake characteristics of Torsvik et al. [27] are PW = precursor wave, LW = leading wave, DW = divergent wave TW = transverse wave, LF = low frequency waves. Image from Pethiyagoda et al. [20].

As noted by Torsvik et al., [27] spectrograms facilitate a reliable decomposition of the wake into constituent components from low-frequency precursor waves up to high-frequency signals within the frequency range of wind-generated waves. The ship wake wave characteristics that can easily be identified in spectrograms are also described by Torsvik et al. [27] and presented in Figure 1. These

are (1) precursor solitary wave, (2) leading wave, (3) divergent wave, (4) transverse wave and (5) low frequency waves.

Pethiyagoda et al. [22] described linear and nonlinear components of ship wake, the two main linear components consist of a sliding-frequency mode, representing the divergent waves that travel at an angle away from the ship; and a constant-frequency mode, representing the transverse waves that travel in the direction of the ship. Larsen et al. [13] add that transverse waves typically have smaller heights and Torsvik et al., [27] noted that wake systems can maintain their characteristics over large distances (order of kilometres) and times (order of hours).

In the spectrogram view of ship wake the divergent and transverse waves take on a wedge-shaped appearance (noted by Lord Kelvin [14]), which in deep water has a half-angle of approximately 19.5 degrees [27]. The spectrogram can also be used to estimate the speed of the passing ship, Torsvik et al. [27] proposed a method that used wave frequency derived from the spectrogram. This has been tested against speed derived from the AIS tracking system with reasonable success, particularly for ships travelling below 30 knots. Ratsep et al. [24] tested three methods based on (1) frequency of the leading wave, (2) frequency of the lowest frequency of the divergent component at the beginning of its signal and (3) a linear fit of the transverse component.

Most measurement-based studies on ship wake have been undertaken in low energy environments. For example, Parnell et al. [21] measured ship wake in Marlborough Sounds in New Zealand, Kelpsaite et al. [11] measured ship wake in the Baltic Sea, and Gourlay T. measured ship wake in the Swan River, Perth, Australia [10]. International shipping movements generally occur within exposed open ocean shipping channels and lanes; however, quantifying ship wake in high energy environments has had less attention.

For over 50 years, the Queensland Government Hydraulics Laboratory has been using Datawell waverider buoys to collect wave information to better understand the physical processes affecting the Queensland coastline [23]. There appears to be no evidence of wave buoys having previously been used for detecting ship wake, in the literature. This is surprising, given that waverider buoys are an established means of collecting wave information used by many organisations around the world for decades [4][8].

This paper investigates the detection and extraction of ship wake information from high frequency wave buoy data collected in high and medium energy ocean environments near shipping channels in Queensland. Ship wake characteristics detected by wave buoys are compared to characteristics detected using other instruments and with the background wave climate at two sites.

2. Methods

This study utilised outputs of water surface elevation and wave spectra from Datawell waverider buoys (0.9m DWR-G) at Caloundra (Figure 2), near the shipping channel of the Port of Brisbane, and in the Torres Strait near the Great North Eastern Channel (Figure 3). Both sites are within 5 km of the shipping channel. The Australian Maritime Safety Authority vessel tracking database

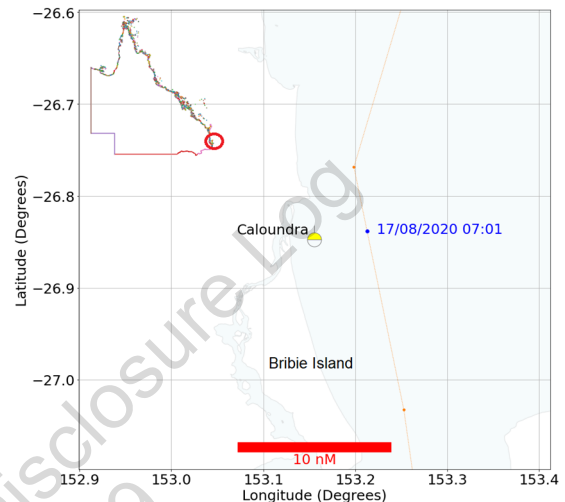


Figure 2 Location of the Caloundra waverider buoy, the transit path and date and time when the ship was close to the buoy.

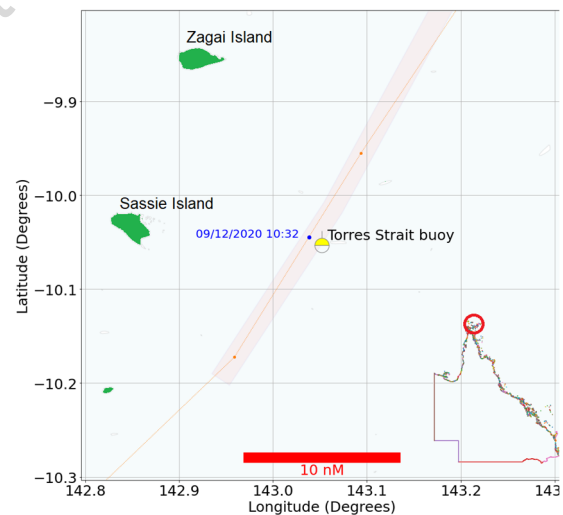


Figure 3 Location of Torres Strait waverider buoy, the transit path and date and time when the ship was close to the buoy. Great North East Channel in pink.

(AIS information) was used to extract ship movements, and match these with the wake signals based on time and date. The process of detecting ship wake from waverider buoys initially involves examining the time-series plots of water surface elevations. If sea conditions are calm, the ship wake will appear in the time-series plot as a larger cluster rising out of the background waves. While this is sufficient to enable detection of the ship wake and

allows the user to determine the magnitude and duration of the event, it does not provide any other useful information. The complete picture only unfolds if the water surface elevations are subjected to short-term spectral analysis and be presented in a spectrogram. The spectrograms are a time series view of the spectral wave energy and were used to enable visual inspection of each 30-minutes record. Spectrograms were generated following the methods of Torsvik et al. [27]. Each of the detected ship wake records were inspected for five characteristics of the signature in the spectrogram as outlined by Torsvik et al. [27].

Table 1 Average wave height (H_s) and peak wave period T_p and measurement type at Caloundra and Torres Strait.

| Site | Average H_s (m) | Average T_p (s) | Type |
|------------------------------|-------------------|-------------------|-------------------------------|
| Caloundra buoy | 0.92 | 5.4 | Waverider DWR GPS |
| Caloundra conductivity gauge | 0.92 | 5.4 | Wave pole (capacitance gauge) |
| Torres Strait | 0.52 | 3.2 | Waverider DWR GPS |

The background wave record is used to quantify the similarities and differences between ship wake and

wake evident in the wave buoy data are compared to the characteristics of the wave climate. Data from a capacitance gauge near the location of the Caloundra waverider buoy with high frequency data records are also analysed and the wake characteristics are compared to the characteristics in the waverider data.

3. Results

Ship wake has been detected within water surface elevations and spectrograms of waverider buoy data from Caloundra and Torres Strait.

Of the five ship wake characteristics investigated, two were easily identified and one characteristic was detected; but not as clearly defined in the waverider buoy records. These were found to be similar to ship wake characteristics determined from modelling and from other types of instruments. If wave conditions are suitably calm, then ship wakes should stand out from the background noise as is shown in the spectrogram in Figure 4. The figure also includes a period where the background conditions have masked a possible ship wake event in the time series plot, despite which there still appears to be a strong signature in the spectrogram around 11:00 am. From Figure 4 it is clear that, the wake signal is maintained over long periods. Having identified possible ship wake signatures in

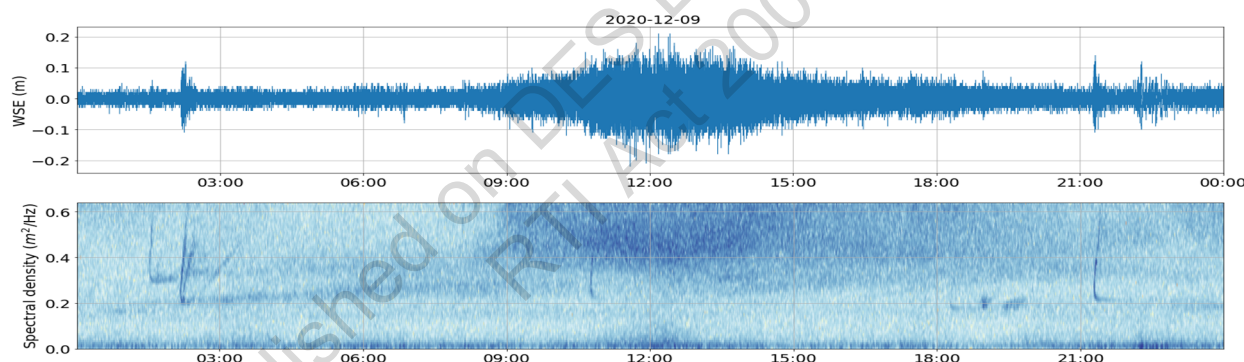


Figure 4 Torres Strait water surface elevation and spectrogram on December 9 2020. Ship wake signals are evident in both plots, particularly when the background wave heights are lower than 0.3 m.

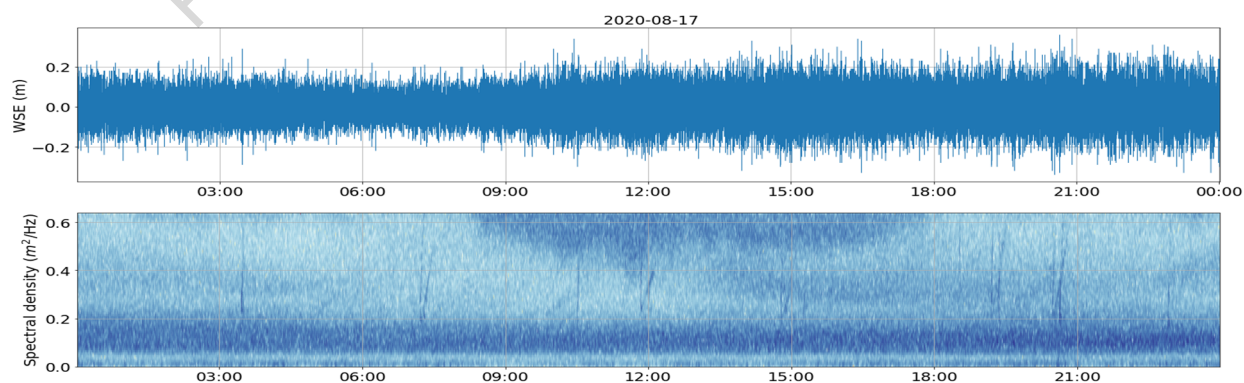


Figure 5 Caloundra water surface elevation and spectrogram on August 17 2020. Ship wake signals are evident in the spectrogram but masked in the water surface elevation plots.

the natural wave climate. The characteristics of ship

the 24-hour plot, one can then look at the individual

30-minute records where signatures have been detected. This is where the power of the spectrogram is revealed. Figure 6 shows the data from a typical 30-minute record of the Torres Strait waverider starting at 02:00 on 9 December 2020. In the spectrogram, the wake is depicted by two of its linear components- the transverse and divergent waves that take on a wedge-shaped appearance.

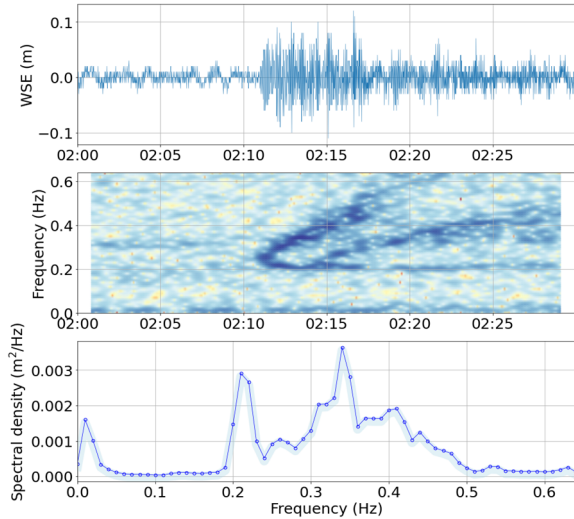


Figure 6 Torres Strait water surface elevation, spectrogram and spectra, December 9 2020 2:00 am record. The divergent and transverse waves detectable in all three plots.

The Spectral plot in Figure 6 (bottom) from the Torres Strait shows a high energy peak between 1.8 and 2.3 Hz which corresponds with the frequency of the transverse wave. Another spectral peak is seen between 0.3 and 0.37 Hz which mostly aligns with the divergent wave. A third spectral peak is in the low frequency range lower than 0.03 Hz.

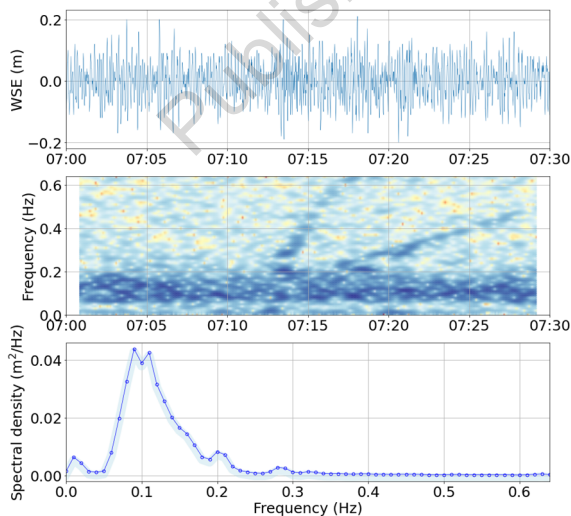


Figure 8 Caloundra water surface elevation, spectrogram and spectra, August 17 2020 7:00 am record. The divergent wave is clear but the divergent wave is masked by the background wave climate.

The ship responsible for this wake was identified in the AMSA database as a south-bound tanker with length of 228 m, beam of 32 m and draught of 7.0 m, travelling at a speed of 12.7 knots. The ship passed within 1,600 m of the buoy and the wake took just over 4 minutes to reach the buoy.

The transverse and divergent wake signatures also appear in records from the Caloundra site even though this site typically has a higher energy wave climate than the Torres Strait (Table 1). Figure 5 shows a 24-hour record for August 17, 2020. Unlike the time-series plot in Figure 4, it is difficult to separate ship wake from the background conditions in the surface elevation plot alone. Although not as noticeable as they were in Figure 4, the spectrogram still manages to identify ship wake signatures in these higher energy background conditions. It is harder to identify the transverse wave component, and at times the higher frequency parts of the divergent waves. There appears to be evidence of the leading wave embedded in, within the background waves around 0.2 Hz. Regardless of these limitations, the 30-minute record from Caloundra in Figure 7, show that the wake wave is visible in the time-series plot.

The ship responsible for the wake in Figure 7 was identified in the AMSA database as a south-bound cargo ship having length of 200 m, beam of 32 m and draught of 9.0 m with a travelling speed of 15.2 knots. The ship passed within 5,770 m of the buoy. It took the wake just over 12 minutes to reach the waverider buoy.

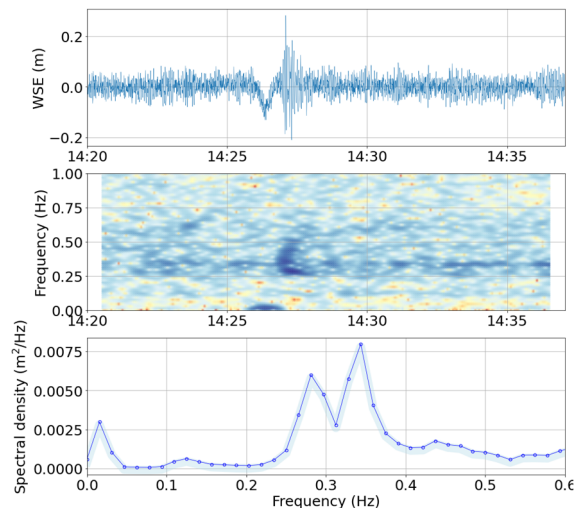


Figure 7 Bar cutting conductance gauge, water surface elevation, spectrogram and spectra from June 1 1998 14:20 pm record. The draw-down, leading and transverse waves are detectable.

4. Conclusions

This study has shown that waverider buoy records are a suitable means of detecting ship wake and reporting of wave characteristics of ship wake. The results of observations from Torres Strait and Caloundra demonstrate that waverider buoys are capable of measuring ship wake particularly when

wave conditions are suitable. In the two examples presented here, when the background wave frequency is between 0.1 and 0.2 Hz (wave period of 5 to 12 seconds) the transverse wave is masked in the spectrogram (seen for Caloundra). When the background wave frequency is high between 0.3 and 0.6 Hz (wave period of 1.7 to 3.3 seconds) the divergent wake waves are partially masked. It is possible that a leading wave is also seen in the spectrogram at Caloundra in Figure 7, but it is masked somewhat by the background waves. The higher wave heights of over 0.3 m at Caloundra, and for a short period in the Torres Strait record, mask all wake signals in the water surface elevations (which will be common to almost all instruments attempting to observe ship wake), but not completely in the spectrograms.

The average long-term wave frequency at the Torres Strait site is 0.3 Hz or 3.2 second peak wave period (Table 1). This is higher frequency than the background wave frequency that masked the transverse wake wave. The average long-term wave frequency at the Caloundra site is 0.18 Hz or 5.5 second peak wave period (Table 1). This is within the range of frequency that masked the transverse wake signal at Caloundra. The average significant wave height at both sites (Table 1) was higher than the minimum background wave height considered to allow detection of wake in the water surface elevation plots.

The Transverse and divergent wake waves were detected in both the Caloundra and Torres Strait waverider records. It appears that there may be two divergent waves in the single record of both sites. It may be that the first divergent wave (on the left in Figures 6 and 7) could actually be a leading wave, or there may be two ship wakes in both records. This point deserves further investigation as Torsvik et al. [27] points out “automatic wake detection can be difficult in regions of high frequency of ship traffic, where wake features may be overlapping”.

A limitation which is apparent in the water surface elevation, relates to drawdown. So far, the discussion has only focused on ship wake, and the transverse and divergent waves. As Larson et al. [13] point out, while these are the disturbances at the bow and the stern of ships, there are other waves resulting from pressure and velocity distribution along a moving ship's hull, having wavelengths of the same order as the length of the ship, which are known as drawdown.

Importantly Larson et al. [13] say, that drawdown has a much longer period than the divergent waves, leading to larger velocities and sediment transport in shallow water. However, in this study, waveriders seem unable to detect drawdown at either of the study sites. Investigating this further, historic data from a wave pole (conductance gauge) at Bar Cutting operated in the 1990's was reanalysed. The wave pole was attached to a navigation beacon adjacent to the shipping channel leading into the Port of Brisbane. Being fixed to the navigation

beacon, the wave pole was sensitive to water surface fluctuations and changes in water level due to tides. As shown in Figure 8, drawdown is clearly evident ahead of the ship wake signature, in the wave pole record from 1998.

The spectral plot of the Bar Cutting (Figure 8 bottom plot) also shows significant energy at the low-frequency end of the spectra that most likely represents the drawdown. The waverider, on the other hand, is free to move with the water surface (so it is not affected by tides and other long-period fluctuations). So, while it is able to detect the higher-frequency wake waves, it seems it is not so sensitive to the slower long-period movements of drawdown. Despite this, the spectral plot for Caloundra and Torres Strait shows a low frequency energy peak at around 0.02 Hz similar to the Bar Cutting low frequency energy peak, which may be considered as drawdown or the low frequency leading wave. While ship wake can propagate over large areas according to both MacDonald NJ. [15] and Almström et al. [1], drawdown is generally restricted to the area around a vessel (unless it is in or near shallow water). As the wave pole was attached to a navigation beacon, it was much closer to the shipping channel than the waverider, which explains why the wave pole was able to record draw-down, and the waverider didn't.

A point of interest is that the frequency of the transverse wake component is slightly lower at Caloundra shown in Figure 7, than the transverse wave frequency at the Torres Strait shown in Figure 6. This is possibly due to the different ship speeds where the Caloundra ship travelled faster than the Torres Strait ship. This observation is supported by observations of Torsvik et al. [27] that lower frequency waves are generated when the speed of the ship is higher.

The advantage of using waverider buoys over other methods, is that they are relatively easy and quick to deploy and recover. Unlike pressure sensors deployed on the sea-bed, or vertical wave transducers and radars, waverider buoys are not limited to shallow water deployment. So, they can be positioned in deeper water, close to offshore shipping channels. They can also operate unattended for extended periods, and importantly, they can transmit data to shore-based receivers for real-time access to their data [4].

Regardless of the drawdown limitation, it has been demonstrated here that it is possible to use Datawell waverider buoys to detect ship wake. The advantages outlined above make them a viable option for coastal planners and port operators to consider.

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Review of the causes of erosion on northern Bribe Island

[Procurement Activity ID and Title]

| Section 1 – Request for Quote | |
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| Customer Details | The State of Queensland acting through the Department of Environment and Science ABN: 46 640 294 485 |
| Contact Officer | Project Officer Name, Position and Branch Street Address Postal Address |
| Request for Quote Details | |
| Date of Issue | |
| Request for Quote Contact Officer | All enquiries regarding this RFQ should be directed to: Name: Position: Email: |
| Closing Date and Time | XX:XX am/pm Queensland Time on [DD/MM/YYYY] |
| Cut off for Clarification | XX:XX am/pm Queensland Time on [DD/MM/YYYY] |
| Submission Requirements | Quotes are to be submitted [insert how quotes are to be submitted, i.e. email to Contact Officer, or Queensland Government Qtender Website], by the closing date and time. Submissions are to be zipped where possible with a maximum email size of 20MB Quote must include the following as a minimum: <ul style="list-style-type: none"> Completed and signed - Request for Quote (this document) Copy of Certificate of Currency of required insurance policies [Insert other submission requirements if applicable]. |
| 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 |

Commented [BL1]: Insert details of contact officer for the Request for Quote – that is, the person managing the RFQ process and receipt of offers from suppliers. **NOTE: contact officer cannot be members of Evaluation Panel or Financial Delegate** – recommend Procurement Officer is used.

Commented [SS2R1]: Hi Linda, given the above restriction maybe this should be Paul Pinjuh? Can't be me or you.

Commented [LR3R1]: Yes we could use Paul if needed, however QGHL has agreed on helping out preparing the RFQ scope, not sure who will run this project. Need to discuss with Celine

Commented [BL4]: Recommend use of a workgroup mailbox where available and confidentiality of suppliers offers can be achieved.

Commented [CSS]: If selecting QTenders then the contact/procurement officer will need to contact DES Procurement to request access to the system.

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| Conditions: the following conditions apply to this Request for Quote and the resulting purchase of goods and services | |
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| Conditions of Contract | <p>The [Basic Purchasing Conditions / General Conditions of Contract] 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> |

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| 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 80m 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 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. |

Commented [SS6]: check

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 a 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 + 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 (Feb 2022) 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 to 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

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.

References should be provided for other literature that may be used.

Analysis of the postulated causes of erosion

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

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| | <p>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>Timeframe: 10 weeks maximum and preferably sooner</p> |
| Deliverables / Milestones | <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 (estimated week 7) 50%</p> <p>Final report and presentation (estimated week 10) 50%</p> |
| Start Contract Date | Upon acceptance of the Supplier's Offer by the Customer or as agreed by DES |
| End Contract Date | 30th June 2022 |
| Extension Options | Not applicable |
| Section 3 - Evaluation of Offers | |
| Quotes will be evaluated based on the following criteria: | |
| <ul style="list-style-type: none"> 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 | |
| <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 | |

Commented [LR7]: Need to update to reflect 10 weeks?

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| specific knowledge of Bribie Island and environs coastal processes will be highly regarded. |
| <i>Evaluation Criteria 2:</i> 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). |
| <i>Evaluation Criteria 3:</i> Proposed sound methodology to deliver on the scope of the work within the timeframe. |
| <i>Evaluation Criteria 4:</i> Demonstrated experience in delivering comprehensive but easy to understand technical papers and community presentations related to investigations of coastal processes and the coastal zone. |

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| Section 4 - Supplier Response and Details | |
| <i>(Supplier must complete and sign this Section as part of its response to this RFQ)</i> | |
| 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/ACN | <insert legal entity name and ABN/ACN> |
| Contact Person | Name: <insert> Position: <insert> Phone number: <insert> Email: <insert> Address: <insert> |
| Mandatory Requirements | |
| Insurances | Do you agree to comply with the insurance requirements as specified below? No <input type="checkbox"/> Yes <input type="checkbox"/> 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 | Choose an item. |
| Public Liability | Choose an item. |
| Products Liability | Choose an item. |
| Professional Indemnity | Choose an item. |
| Other Insurances | Insert other insurances as required _____ |
| Compliance with the Ethical Supplier Threshold Do you declare that you comply with the Queensland Government's Ethical Supplier Threshold? | No <input type="checkbox"/> Yes <input type="checkbox"/> If no, insert details |
| Compliance with the Contract Conditions Do you agree to comply with the Contract Conditions specified in Section 1? | No <input type="checkbox"/> Yes <input type="checkbox"/> |

Commented [SS8]: Im guessing we have mandatory requirements for these?

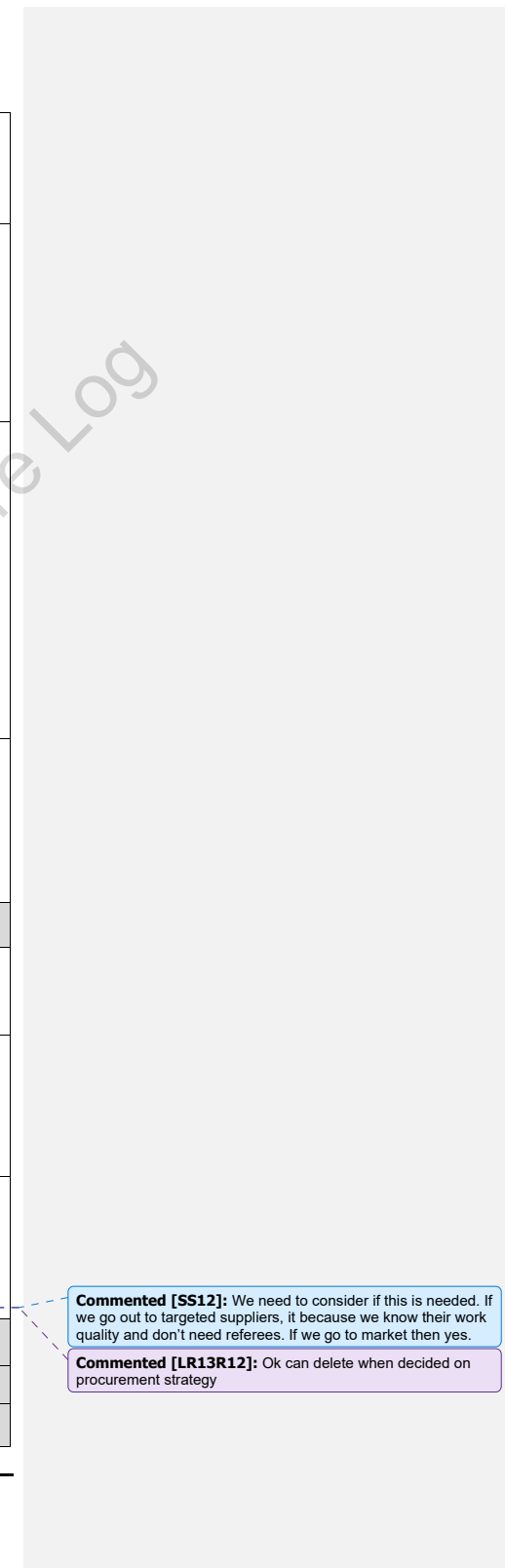
Commented [LR9R8]: We can check with Paul Pinjuh

| | |
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| Conflict of Interest | 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". <i><insert Supplier response></i> |
| Local Supplier <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> | Does the organisation identify as a Local Supplier?* |
| | <input type="checkbox"/> Yes (within 125km) <input type="checkbox"/> No If No, do you identify yourself as being one of the following? |
| | <input type="checkbox"/> Located within local region <input type="checkbox"/> Queensland Business (main business location registered as Queensland with the Australian Business Register) <input type="checkbox"/> Australian Business |
| Aboriginal and Torres Strait Islander Supplier (ATSI) | Does the organisation identify as an ATSI Supplier?* |
| | <input type="checkbox"/> Yes <input type="checkbox"/> No <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> |
| Supplier Enterprise Type | Please select enterprise type below: |
| | <input type="checkbox"/> Small Business [19 or less employees] <input type="checkbox"/> Medium Business [between 20-199 employees] <input type="checkbox"/> Large Business [200 or more employees] |
| Authorisation and execution by Supplier | As the authorised officer, I certify that: |
| 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. | (a) I am authorised to submit the Supplier's response as the Supplier's representative. |
| | (b) The Supplier understands and has complied with the Requirements of the Request for Quote. |
| | (c) The Supplier's response is complete, accurate and not misleading in any way. |
| | Name: |
| | Position: |
| | Signature: |
| | Date: |
| Supplier Response to Requirements | |
| [Response to Evaluation Criteria – if using evaluation criteria, insert criteria below] | |
| 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 coastal processes for Bribie Island and environs will be highly regarded. | <i><Supplier to add details below to demonstrate how they meet this evaluation criterion OR refer to attached material that addresses the criterion></i> |
| <ul style="list-style-type: none"> Provide an overview of the project personnel and list their qualifications, knowledge, skills, capability and experience. | |

Commented [SS10]: Complete when we agree on criteria

Commented [LR11R10]: Happy with the criteria as described above, will copy and paste here

| <ul style="list-style-type: none"> Demonstrate by example, expertise in the fields of coastal science & engineering, oceanography, and data science and analysis. Contributions to the field of coastal research. | | | | | | | | | |
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| <p>Evaluation Criteria 2: 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><Supplier to add details below to demonstrate how they meet this evaluation criterion OR refer to attached material that addresses the criterion></p> | | | | | | | | |
| <p>Evaluation Criteria 3: 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><Supplier to add details below to demonstrate how they meet the evaluation criteria OR refer to attached material that addresses the criterion></p> | | | | | | | | |
| <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.</p> <ul style="list-style-type: none"> Provide examples | <p><Supplier to add details below to demonstrate how they meet the evaluation criteria OR refer to attached material that addresses the criterion></p> | | | | | | | | |
| <p>Referees [delete if not required]</p> | | | | | | | | | |
| <p>Provide contact details of (at least) two (2) clients for whom similar work has previously been undertaken. Include contact name, phone number and a brief description of the previous project undertaken for this client including the approximate value of the project.</p> | | | | | | | | | |
| <p>1. Project Name: <insert details> Client: <insert company name> Contact Details: <insert contact name, phone and email address> Description of Works: <insert project summary></p> | | | | | | | | | |
| <p>2. Project Name: <insert details> Client: <insert company name> Contact Details: <insert contact name, phone and email address> Description of Works: <insert project summary></p> | | | | | | | | | |
| <p>Pricing [amend as necessary for your purchase need]</p> | | | | | | | | | |
| <p>Products Or Services Offered And Pricing Description</p> <p>(attach brochures/attachments or other documentary</p> | <p>Supplier's Response</p> <table border="1"> <thead> <tr> <th>Quantity</th> <th>Unit Price</th> <th>GST</th> <th>Total Price</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | Quantity | Unit Price | GST | Total Price | | | | |
| Quantity | Unit Price | GST | Total Price | | | | | | |
| | | | | | | | | | |



Commented [SS12]: We need to consider if this is needed. If we go out to targeted suppliers, it because we know their work quality and don't need referees. If we go to market then yes.

Commented [LR13R12]: Ok can delete when decided on procurement strategy

Streamlined Request for Quote – [Procurement Activity ID and Title]

| <i>evidence of compliance with requirement, if necessary</i> | | (excl. GST) | Payable (per unit) | (incl. GST) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------|------------------------------------|-------------|
| | | \$ | \$ | \$ |
| | | \$ | \$ | \$ |
| | | \$ | \$ | \$ |
| Delivery / Other Costs | | | | \$ |
| Settlement Discount (if applicable) %Days If no discount is offered, then the Customer's standard payment terms of 30 days shall apply | \$ | \$ | \$ | \$ |
| <input type="checkbox"/> Supplier is a small business registered with the On Time Payment Small Business Register – payment terms are 20 days | Total Unit Price (excl. GST) | Total GST Payable | Total Price (incl. GST) | |

Published on DES Disclosure Log
RTI Act 2009

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 / General Contract 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

Commented [GB14]: Amend to the Contract Conditions you are using

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.

Schedule B – Specification – [Procurement Activity ID and Title]

Delete this Schedule if a detailed specification is not required for the purchase.

Commented [BL15]: You can either complete Section 2 or this Schedule depending on the level of detail you need to provide your potential Suppliers.

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| 1. BACKGROUND/SCOPE | |
| <<Customer to provide a brief description of the goods or services and any background information. Include what is to be achieved, compatibility with other equipment, how the item is to be used and context etc.>> | |
| 2. TECHNICAL/FUNCTIONAL REQUIREMENTS | |
| Mandatory requirements | List any "must haves" (if supplier cannot meet, then their offer will be excluded from evaluation) |
| Requirements / Scope of Work | Describe requirements or scope of work in detail |
| Key Deliverables and Milestones (if applicable) | Insert any Key Deliverables and/or Milestones (if applicable) |
| Delivery address (if applicable) | Insert delivery address (if applicable) |

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 | <i>Technical Delegate:</i> Sel Sultmann Principal Coastal Scientist Environmental Policy and Planning Branch Sel.Sultmann@des.qld.gov.au 3330 5768 |
| 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 | 5:00pm Queensland Time on 03/05/2022 |
| Cut off for Clarification | 2:00pm Queensland Time on 22/04/2022 |
| Submission Requirements | Quotes are to be submitted via email to Contact Officer, by the closing date and time. Submissions are to be zipped where possible with a maximum email size of 20MB Quote must include the following as a minimum: <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 |

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| 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> |

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| 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 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.

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

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.

References should be provided for other literature that may be used.

Analysis of the postulated causes of erosion

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| | <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> | |
| <p>Quotes will be evaluated based on the following criteria:</p> <ul style="list-style-type: none"> • 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. | |
| <p>Compliance with Mandatory Requirements</p> | |
| <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 Bribie Island and environs coastal processes will be highly regarded.</p> | |

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.

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| Supplier name and ABN/ACN | <insert legal entity name and ABN/ACN> |
| Contact Person | Name: <insert> Position: <insert> Phone number: <insert> Email: <insert> Address: <insert> |
| Mandatory Requirements | |
| Insurances | Do you agree to comply with the insurance requirements as specified below? No <input type="checkbox"/> Yes <input type="checkbox"/> 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 | Choose an item. |
| Public Liability | Choose an item. |
| Products Liability | Choose an item. |
| Professional Indemnity | Choose an item. |
| Other Insurances | Not required |
| Compliance with the Ethical Supplier Threshold Do you declare that you comply with the Queensland Government's Ethical Supplier Threshold? | No <input type="checkbox"/> Yes <input type="checkbox"/> If no, insert details |
| Compliance with the Contract Conditions Do you agree to comply with the Contract Conditions specified in Section 1? | No <input type="checkbox"/> Yes <input type="checkbox"/> |

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| Conflict of Interest | <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><insert Supplier response></p> | | | | | | | | |
| Local Supplier <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>Does the organisation identify as a Local Supplier?*</p> <p><input 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> | | | | | | | | |
| Aboriginal and Torres Strait Islander Supplier (ATSI) | <p>Does the organisation identify as an ATSI Supplier?*</p> <p><input type="checkbox"/> Yes <input 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> | | | | | | | | |
| Supplier Enterprise Type | <p>Please select enterprise type below:</p> <p><input type="checkbox"/> Small Business [19 or less employees]</p> <p><input type="checkbox"/> Medium Business [between 20-199 employees]</p> <p><input type="checkbox"/> Large Business [200 or more employees]</p> | | | | | | | | |
| Public Health Directives | <p>Does the organisation agree to adhere to all current Public Health Directives?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> | | | | | | | | |
| Department of Environment and Science COVID-19 Vaccination Requirements Policy and Procedure | <p>Does the organisation agree to adhere to the Department of Environment and Science COVID-19 Vaccination Requirements Policy and Procedure?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> | | | | | | | | |
| Department of Environment and Science COVID-19 Risk Management – Requirements to attend Department of Environment and Science facilities | <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 type="checkbox"/> Yes <input type="checkbox"/> No</p> | | | | | | | | |
| Authorisation and execution by Supplier <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> <table border="1" data-bbox="512 1839 1481 2078"> <tr> <td data-bbox="512 1839 676 1899">Name:</td> <td data-bbox="676 1839 1481 1899"></td> </tr> <tr> <td data-bbox="512 1899 676 1960">Position:</td> <td data-bbox="676 1899 1481 1960"></td> </tr> <tr> <td data-bbox="512 1960 676 2020">Signature:</td> <td data-bbox="676 1960 1481 2020"></td> </tr> <tr> <td data-bbox="512 2020 676 2078">Date:</td> <td data-bbox="676 2020 1481 2078"></td> </tr> </table> | Name: | | Position: | | Signature: | | Date: | |
| Name: | | | | | | | | | |
| Position: | | | | | | | | | |
| Signature: | | | | | | | | | |
| Date: | | | | | | | | | |

| Supplier Response to Requirements | | | | | |
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| 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><Supplier to add details below to demonstrate how they meet this evaluation criterion OR refer to attached material that addresses the criterion></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><Supplier to add details below to demonstrate how they meet this evaluation criterion OR refer to attached material that addresses the criterion></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><Supplier to add details below to demonstrate how they meet the evaluation criteria OR refer to attached material that addresses the criterion></p> | | | |
| <p><i>Evaluation Criteria 4:</i> Demonstrated experience in delivering comprehensive but easy to understand technical papers and community presentations related to investigations of coastal processes and the coastal zone.</p> <ul style="list-style-type: none"> • Provide examples | | <p><Supplier to add details below to demonstrate how they meet the evaluation criteria OR refer to attached material that addresses the criterion></p> | | | |
| 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) |

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| | | \$ | \$ | \$ |
| | | \$ | \$ | \$ |
| | | \$ | \$ | \$ |
| | Delivery / Other Costs | | | \$ |
| Settlement Discount (if applicable) %Days If no discount is offered, then the Customer's standard payment terms of 30 days shall apply <input type="checkbox"/> Supplier is a small business registered with the On Time Payment Small Business Register – payment terms are 20 days | | \$ | \$ | \$ |
| | | Total Unit Price (excl. GST) | Total GST Payable | Total Price (incl. GST) |

Published on DES Disclosure Log
RTI Act 2009

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

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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

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 | Celine Roux, Science Leader, Queensland Government Hydraulics Laboratory, Science and Technology 27 Quinlan Street Deagon, Qld 4017 Sel Sultmann Principal Coastal Scientist Environmental Policy and Planning Branch Sel.Sultmann@des.qld.gov.au 33305768 |
| Request for Quote Details | |
| Date of Issue | |
| 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 | XX:XX am/pm Queensland Time on [DD/MM/YYYY] |
| Cut off for Clarification | XX:XX am/pm Queensland Time on [DD/MM/YYYY] |
| Submission Requirements | Quotes are to be submitted via email to Contact Officer, by the closing date and time. Submissions are to be zipped where possible with a maximum email size of 20MB Quote must include the following as a minimum: <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. |

Commented [LR1]: This is still to be confirmed

Commented [SS2R1]: If this is for technical details I am happy to be the contact officer

Commented [BL3]: Insert details of contact officer for the Request for Quote – that is, the person managing the RFQ process and receipt of offers from suppliers. **NOTE: contact officer cannot be members of Evaluation Panel or Financial Delegate** – recommend Procurement Officer is used.

Commented [SS4R3]: Hi Linda, given the above restriction maybe this should be Paul Pinjuh? Can't be me or you.

Commented [LR5R3]: Yes we could use Paul if needed, however QGHL has agreed on helping out preparing the RFQ scope, not sure who will run this project. Need to discuss with Celine

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| Complaints | <p>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:</p> <p>https://www.des.qld.gov.au/contactus/feedback/?type=complaint</p> |
| Conditions: the following conditions apply to this Request for Quote and the resulting purchase of goods and services | |
| Conditions of Offer | <p>This Request for Quote (RFQ) process will be governed by the RFQ Conditions contained in Schedule A.</p> |
| 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> |

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| 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 and 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

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| | <ul style="list-style-type: none"> - 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>Timeframe: 10 weeks maximum and preferably sooner</p> |
| <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 (estimated week 7) 50%</p> <p>Final report and presentation (estimated week 10) 50%</p> |
| <p>Start Contract Date</p> | <p>Upon acceptance of the Supplier's Offer by the Customer or as agreed by DES</p> |

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| End Contract Date | 30th June 2022 |
| Extension Options | Not applicable |
| Section 3 - Evaluation of Offers | |
| Quotes will be evaluated based on the following criteria: | |
| <ul style="list-style-type: none"> 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 | |
| <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 Bribie Island and environs coastal processes will be highly regarded. | |
| <i>Evaluation Criteria 2:</i> 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). | |
| <i>Evaluation Criteria 3:</i> Proposed sound methodology to deliver on the scope of the work within the timeframe. | |
| <i>Evaluation Criteria 4:</i> Demonstrated experience in delivering comprehensive but easy to understand technical papers and community presentations related to investigations of coastal processes and the coastal zone. | |

Commented [LR6]: Need to update to reflect 10 weeks?

Commented [LR7R6]: This is getting closer

Commented [SS8R6]: Lets keep to 30 June

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| Section 4 - Supplier Response and Details | |
| <i>(Supplier must complete and sign this Section as part of its response to this RFQ)</i> | |
| 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/ACN | <insert legal entity name and ABN/ACN> |
| Contact Person | Name: <insert> Position: <insert> Phone number: <insert> Email: <insert> Address: <insert> |
| Mandatory Requirements | |
| Insurances | Do you agree to comply with the insurance requirements as specified below? No <input type="checkbox"/> Yes <input type="checkbox"/> 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 | Choose an item. |
| Public Liability | Choose an item. |
| Products Liability | Choose an item. |

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| Professional Indemnity | Choose an item. |
| Other Insurances | Insert other insurances as required |
| Compliance with the Ethical Supplier Threshold Do you declare that you comply with the Queensland Government's Ethical Supplier Threshold? | No <input type="checkbox"/> Yes <input type="checkbox"/> If no, insert details |
| Compliance with the Contract Conditions Do you agree to comply with the Contract Conditions specified in Section 1? | No <input type="checkbox"/> Yes <input type="checkbox"/> |
| Conflict of Interest | 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". <insert Supplier response> |
| Local Supplier <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> | Does the organisation identify as a Local Supplier?* |
| | <input type="checkbox"/> Yes (within 125km) <input type="checkbox"/> No If No, do you identify yourself as being one of the following? <input type="checkbox"/> Located within local region <input type="checkbox"/> Queensland Business (main business location registered as Queensland with the Australian Business Register) <input type="checkbox"/> Australian Business |
| Aboriginal and Torres Strait Islander Supplier (ATSI) | Does the organisation identify as an ATSI Supplier?* |
| | <input type="checkbox"/> Yes <input type="checkbox"/> No <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> |
| Supplier Enterprise Type | Please select enterprise type below: |
| | <input type="checkbox"/> Small Business [19 or less employees] <input type="checkbox"/> Medium Business [between 20-199 employees] <input type="checkbox"/> Large Business [200 or more employees] |
| Public Health Directives | Does the organisation agree to adhere to all current Public Health Directives? |
| | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Department of Environment and Science COVID-19 Vaccination Requirements Policy and Procedure | Does the organisation agree to adhere to the Department of Environment and Science COVID-19 Vaccination Requirements Policy and Procedure? |
| | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Department of Environment and Science COVID-19 Risk Management – Requirements to attend Department of Environment and Science facilities | 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? |
| | <input type="checkbox"/> Yes <input type="checkbox"/> No |

Commented [SS9]: Im guessing we have mandatory requirements for these?

Commented [LR10R9]: We can check with Paul Pinjuh

Commented [LR11R9]: Mitch are there other Insurances required?

| | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <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> | |
| | <i>Name:</i> | |
| | <i>Position:</i> | |
| | <i>Signature:</i> | |
| | <i>Date:</i> | |

Supplier Response to Requirements

Response to Evaluation Criteria

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| <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><Supplier to add details below to demonstrate how they meet this evaluation criterion OR refer to attached material that addresses the criterion></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><Supplier to add details below to demonstrate how they meet this evaluation criterion OR refer to attached material that addresses the criterion></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><Supplier to add details below to demonstrate how they meet the evaluation criteria OR refer to attached material that addresses the criterion></p> |

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| <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.</p> <ul style="list-style-type: none"> Provide examples | <p><Supplier to add details below to demonstrate how they meet the evaluation criteria OR refer to attached material that addresses the criterion></p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|

Referees [delete if not required]

Commented [SS12]: Not required

Provide contact details of (at least) two (2) clients for whom similar work has previously been undertaken. Include contact name, phone number and a brief description of the previous project undertaken for this client including the approximate value of the project.

1. **Project Name:** <insert details>
Client: <insert company name>
Contact Details: <insert contact name, phone and email address>
Description of Works: <insert project summary>

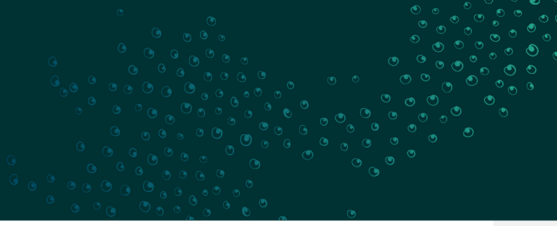
2. **Project Name:** <insert details>
Client: <insert company name>
Contact Details: <insert contact name, phone and email address>
Description of Works: <insert project summary>

Commented [SS13]: We need to consider if this is needed. If we go out to targeted suppliers, it because we know their work quality and don't need referees. If we go to market then yes.

Commented [LR14R13]: Ok can delete when decided on procurement strategy

Pricing [amend as necessary for your purchase need]

| 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) |
| | | \$ | \$ | \$ |
| | | \$ | \$ | \$ |
| | | \$ | \$ | \$ |
| | Delivery / Other Costs | | | \$ |
| Settlement Discount (if applicable) %Days If no discount is offered, then the Customer's standard payment terms of 30 days shall apply | \$ | \$ | \$ | \$ |
| <input type="checkbox"/> Supplier is a small business registered with the On Time Payment Small Business Register – payment terms are 20 days | 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), the *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