

3. OFFICERS REPORTS

3.1. DAINTREE FERRY CROSSING SOLUTION

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RECOMMENDATION

That Council resolves to:

- 1. Replace the existing Daintree Ferry with a single ferry capable of increased loading capability and associated landside infrastructure upgrades on both riverbanks.**
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EXECUTIVE SUMMARY

Council has received feedback from the community and visitors over a long period of time regarding the travel experience of the Daintree River Ferry (ferry). After having more direct understanding of the day to day operations of the ferry, it is prudent that all reasonable initiatives to improve ferry services be re-evaluated.

Council Officers have worked closely with the current ferry operators, traffic engineers and the regulator bodies within the State Government to understand the feasibility of various options that have been suggested by the community and tourism industry. This report seeks to present a synopsis of the findings from investigations carried out over the past eleven months and to recommend an agreed way forward to make short and long term improvements to the ferry service.

In investigating improvements to ferry services, Councillors have identified four primary objectives as follows:

- Priority lane improvements: additional lane northside and realignment of lanes southside
- Better tourist experience
- Reduced queuing times
- Redundancy

An evaluation has been completed on seven ferry options against these objectives:

1. Change Nothing – keep operating the same ferry. **Not recommended** due to no improvement in service levels.
2. Replace existing ferry, with one of same design. **Not recommended** due to no improvement in service levels and changes to safety standards over past 16 years make current design obsolete.
3. Build a similar sized vessel and operate two ferries in peak season. **Not recommended** as there are better options and large challenges/risks.
4. Replace existing ferry with a longer vessel to carry more vehicles. Delivers 20% increase in capacity but **not recommended** as there are better options.

5. Build a longer ferry, carrying more vehicles and operate two ferries in peak season. **Not recommended** as there are better options.
6. **Replace existing ferry with a wider ferry, with four lanes and dual loading capability. Delivers 48% increase in capacity (worst case), or up to 90% increase (best case). While there is no service redundancy it is the preferred option out of the seven.**
7. Build a wider ferry, with four lanes, dual loading and operate two ferries in peak season. Likely to be cost prohibitive and has large challenges/risks, therefore is **not recommended**.

Initial work has commenced to investigate the options of upgrades to landside infrastructure on both the northern and southern sides. Council has already allocated funds within the 2022-23 budget to commence this work. This includes:

- Northern side priority lane, with approvals, design and construction estimated to take between 15-24 months. It should be noted that this is subject to State agency approvals and is likely to require the removal of vegetation.
- Southern side – improvements to the road configuration, with approvals, design and construction estimated to take between 15-24 months

BACKGROUND

Prior to preparing tender documents for a new ferry contract, in 2018, feedback was sought from stakeholders regarding any enhancements they would like Council to consider. At the time, a bridge was not an option.

An online survey attracted 117 responses. In terms of satisfaction, the survey responses indicated almost half the respondents (47%) were dissatisfied with current services.

The most common complaint from respondents were the long queues and the waiting time during the peak tourism season with 36.8% mentioning unacceptable delays at the ferry.

Solutions from the community were:

- 38.4% of respondents want a second ferry
- The creation of a priority lane on the northern side was mentioned by 31.3% of respondents
- 24.1% suggested an extension to the priority lane on the southern side to enable those with concession cards to access the lane when traffic was queued back past the start of the double lanes.

During the engagement process, Council made available a Traffic Modelling Report prepared by GHD consulting engineers to examine four options:

- Current service
- Larger ferry
- Two ferries
- Bridge

The GHD traffic report, which analysed congestion and assessed future conditions, found a bridge was the most effective at dealing with queues at peak periods, followed by the larger ferry and two-ferry solution. In 2019, Council then put a tender document to the market which presented the issues. The expectation was that the market would provide a solution to resolve the above issues. There has been much discussion with Councillors and the community since this time regarding the progress to date. There has also been numerous Council resolutions passed and a summary of these is as follows.

On 3 December 2019, Council resolved to Enter into contract 2019-084 Daintree River Ferry Contract 2021 with Sirron Enterprises (Qld) Pty Ltd.

On 28 April 2020, Council resolved to:

1. Suspend contract negotiations for the contract 2019-084 Daintree Ferry Contract, whilst it:
2. Explores the option of a bridge crossing at various locations and possible economic benefits to the region
3. Conducts further community consultation including a bridge option and detail of the costs of the two ferry solution provided for in the currently negotiated contract; and
4. Bring the results of the community consultation back to an ordinary council meeting for further discussion and resolution.

On 15 December 2020, Council resolved:

1. That Council resumes contract negotiations for the 2019-084 Daintree Ferry Contract 2021 and requests that the Chief Executive Officer bring back a report to Councillors with key final terms of the contract for approval prior to signing.

At a special Council Meeting on 12 January 2021, Council resolved to:

1. Negotiate an extension to Contract 5-05/06 with Sirron Enterprises Pty Ltd, for a five year plus two-year period, for no more than the estimated value as detailed in the report by 15 January 2021.
2. In the event Recommendation 1 cannot be reached by 15 January 2021, release a request for tender to operate the ferry services for the period prior to the two-ferry solution commencing operations, and advise Sirron Enterprises Pty Ltd that they have the option to Tender.
3. In the event Recommendation 1 cannot be reached by 15 January 2021, to commence negotiations to acquire the current 27 car ferry from Sirron Enterprises Pty Ltd as per Clause 14.1 of Contract No. 5-05/06.
4. That the report be deemed a confidential document and be treated as such in accordance with ss 171 and 200 of the *Local Government Act 2009* and that the document remains confidential unless Council otherwise decides by resolution.
5. Delegates authority under s 257 of the *Local Government Act 2009* to the Chief Executive Officer to determine and finalise any and all matters associated with this report.

As recommendation 1 could not be reached by 15 January 2021, Council released a request for tender in February 2021, to operate the ferry service.

At a Special Meeting of Council on 30 April 2021, Council resolved:

1. That Council note that Sirron has now committed to delivering a proposal to Council by Tuesday 4 May 2021; and
2. Adjourns this meeting until Wednesday 5 May 2021 at 3:30pm at which time it will be consider the proposal

At the resumption of the Special Meeting on 5 May 2021, Council resolved:

That Council:

1. Receives the Daintree River Ferry Services Proposal as provided by Sirron Enterprises (Qld) Pty Ltd on Wednesday 5 May 2021.

At the resumption of the Special Meeting on 11 May 2021, Council resolved:

1. That Council delegates the Chief Executive Officer, under s 257 of the *Local Government Act 2009*, to investigate options to purchase or lease a ferry to provide continuance of services from 1 July 2021.

At the Special Meeting of Council on 17 May 2021, Council resolved:

That Council:

1. Purchases the current Daintree River Ferry for the agreed amount as per Confidential Report provided to Councillors; and
2. Delegate authority under s 257 of the *Local Government Act 2009* to the Chief Executive Officer to determine and finalise all matters associated with the purchase of the ferry and associated key infrastructure components.

At the Special Meeting of Council on 20 May 2021, Council resolved:

That Council resolves to:

1. Enter into contract 2021-051 Daintree River Ferry Service Contract with Divers Den Investments Pty Ltd, ABN: 11 627 245 649; and
2. Delegates authority under s 257 of the *Local Government Act 2009* to the Chief Executive Officer to negotiate, finalise and execute any and all matters associated with the contract.

Full details of Council resolutions and recent history is contained within the Daintree Ferry Probity Audit. The audit was received by Council at it's meeting on 12 October 2021 and is available from Council's website.

COMMENTS

A long list of initiatives to improve ferry services have been considered, via a series of briefing workshops with Councillors. Some of the initiatives will result in significant improvements, others will have little, if any impact. Ferry design, whether there are one or two ferries, and changes to the approach roads, will have the greatest impact to improving ferry services.

Because there is a considerable volume of technical information needing to be considered in making key decisions around the ferry options, this report focuses solely on ferry options and the road infrastructure.

In investigating improvements to ferry services, Councillors have identified four primary objectives as follows:

- Priority lane improvements: additional lane northside and realignment of lanes southside
- Better tourist experience
- Reduced queuing times
- Redundancy

Investigations have been carried out over the past eleven months to recommend an agreed way forward.

An evaluation has been completed of various ferry options against these objectives:

1. Change Nothing – keep operating the same ferry. Not recommended due to no improvement in service levels.
2. Replace existing ferry, with one of the same design. Not recommended due to no improvement in service levels and changes to safety standards over the past 16 years make current design obsolete.
3. Build a similar sized vessel and operate two ferries in peak season. Delivers 100% increase in capacity during peak times and provides partial service redundancy. Not recommended as there are better options and large challenges/risks.
4. Replace the existing ferry with a longer vessel to carry more vehicles. Delivers 20% increase in capacity but not recommended as there are better options.
5. Build a longer ferry, carrying more vehicles and operate two ferries in peak season. Delivers 108% increase in capacity during peak times and provides partial service redundancy but not recommended as there are better options.
6. **Replace the existing ferry with a wider ferry, with four lanes and dual loading capability. Delivers 48% increase in capacity (worst case), or up to 90% increase (best case). While there is no service redundancy, it is the preferred option out of the seven.**
7. Build a wider ferry, with four lanes, dual loading and operate two ferries in peak season. Delivers 134% increase in capacity in peak times & provides partial service redundancy but likely to be cost prohibitive and has large challenges/risks, therefore is not recommended.

Option 3 – Operate two ferries during peak season

Strong consideration has also been given to the option of utilising two ferries on the river at the same time during peak season – Option 3 above. Council investigations to ascertain the likely timeline, and associated costs involved in the introduction of a two-ferry operation have included the following activities thus far:

- Detailed survey of both the land and the waterway to inform the physical constraints of the potential site area;
- Concept design for the landside and waterway (excluding marine vessel) based on Sirron's views to a two-ferry operation;
- The receipt of pre-lodgment advice from the State Assessment Referral Agency (SARA) outlining the anticipated permits and approvals which will be required across the five different state government agencies for a two-ferry crossing;
- Meetings with Australian Maritime Safety Authority to clarify the required certification standards for a potentially larger ferry, and detailed modelling of two cable ferries operating simultaneously across the river;
- Wet Tropics Management Authority (WTMA) has been consulted about landside works, particularly relating to impacts on the significant mangrove zone along the northern bank, downstream of proposed works;
- Preliminary costings have been prepared for the landside infrastructure construction, new marine vessel construction and relevant consultant costs to achieve a crossing solution;
- Several Councillor workshops to inform and seek clarity as to the delivery expectations;
- Better Council wide understanding of the intricacies of ferry ownership, maintenance and operations;
- A detailed review of the opportunities and risks associated with any ferry crossing solution;
- Significant internal workshopping of possible enhancements to a ferry crossing solution with operational, technical, financial staff, Chief Executive Officer, Departmental Managers and Councillors

This option is not recommended for the following reasons:

1. Initial dredge costs to create new channel and increased ongoing dredging costs to maintain two channels.
2. Application process for dredging permit in 2024 will take longer and be more expensive.
3. The Environmental Study will need to include:
 - a. Geotech study to test land for roads and bank for duplicate concrete landing pad and new access roads
 - b. Bathymetric survey completed – this maps the river .
 - c. Hydrologist review of the impact an additional channel has on the flow of water.
 - d. As a result, the Study will cost more and take longer to complete.
4. It is highly unlikely that the regulatory agencies will provide the approvals needed to operate two ferries at the same time and build the associated infrastructure.
5. Additional maintenance costs associated with two ferries; additional cost to replace two sets of cables rather than one.
6. Requires upgrade to approach roads on both sides.
7. Requires duplication of concrete ramp on northern and southern side of river.
8. If stored on site in the river, there is a risk of damage from weather events.
9. If dry docked in Cairns, there will be storage costs and relocation costs to transport the ferry to and from Cairns.
10. Two ferries brings four cables into play which will impact on other Daintree River users.

As part of the investigations, it was determined that for the past 16 years the level of service for the crossing exceeded 99.6% with a single ferry and the provision of redundancy would be capital and operationally expensive, and unlikely to improve the service levels markedly. It was therefore not further considered in the recommended crossing solution.

Option 4 - Replace the existing ferry with a longer vessel to carry more vehicles

Considerable investigation has also been carried out in relation to this option. It is not recommended for the following reasons:

1. Australian marine compliance requirements are impacted by several factors, one being length. The current ferry is 43.2 metres. To carry an additional row of cars, the ferry would need to be at least 4.6 metres longer which would put it into a different class of marine vessel. This would increase the inspector's costs alone from \$10,000 to \$150,000.
2. With additional cars on the deck, the loading and unloading time is longer, reducing the number of return trips per hour.
3. No redundancy.
4. 60% of peak day travellers are affected by queuing in 2022 with a model maximum queue time of 1¼ hours. This increases to 75% affected travellers in 2032 and maximum queue times of 3¼ hours.
5. Not recommended as the small increase in capacity does not justify the significant cost increase and significant queuing impacts towards the end of its useful life.

Landside upgrades

Concept plans have been prepared confirming a third vehicle lane to be used as a Priority Lane can be created within the existing road reserve on the northern side. Funds have been allocated in the 2022-23 budget to commence work on the northern priority lane. Design, approvals and construction are estimated to take between 15-18 months to complete. It has to be noted that this infrastructure is subject to external approvals by the State Government and will require the removal of some vegetation.

Concept plans have been prepared to improve the road network on the southern side. Funds have been allocated in the 2022-23 budget for improvements to the southern road configuration. Design, approvals and construction are estimated to take between 19 and 24 months.

PROPOSAL

That Council resolves to:

Replace the existing Daintree Ferry with a single ferry capable of increased loading capability and associated landside infrastructure upgrades on both riverbanks.

FINANCIAL/RESOURCE IMPLICATIONS

A significant capital expenditure, estimated at this time to be in the vicinity of \$6.5M will be required to build a replacement boat and undertake north and south bank road, concrete ramp, cable and pylon works. This expenditure will occur over approximately four years and likely need to be sourced from Council funds.

Ongoing expenditure for the maintenance of the above items is estimated to exceed \$400K per annum allowing for planned major maintenance, cable replacement, dredging, insurances and inspections. These are similar costs as are occurring under the current arrangements with the current ferry. It does not include the operational costs of running the ferry, which are anticipated to be covered by ticket sales.

RISK MANAGEMENT IMPLICATIONS

A twenty-five page pre-lodgment advice was received from the State Assessment and Referral Agency (SARA) for a two-ferry crossing of the Daintree River. The SARA advice did not include Wet Tropics, Australian Marine Safety Australia or cultural heritage advice which would also be necessary for gaining the relevant approvals to proceed with a second ferry crossing.

A single ferry solution, albeit slightly wider, would fit into the current arrangements with some modification and is much more likely to be accepted by the relevant authorities due to its similar footprint across the Daintree River.

Whilst a bridge would provide the most efficient way to transport vehicles across the River, feedback from the regulatory agencies has indicated that it is highly unlikely that approvals will be granted for the major works and infrastructure needed to build the bridge. Additionally, this option is cost prohibitive.

A replacement ferry will not remove all traffic queueing issues. Rather at its anticipated commencement (2026), queueing times in peak times will be almost non-existent, with queues times in 2053 with a four-lane ferry similar to currently experienced in 2022 with the existing three lane ferry.

The risk of this proposal not being adopted means that there will not be an upgrade to the current service. It prevents the commencement of planning for a future replacement ferry and any upgrades to landside infrastructure; including the northern priority lane may be obsolete as the final ferry solution remains unknown.

SUSTAINABILITY IMPLICATIONS

- Economic:** The Daintree River crossing is an important transport link and is a vital component of the economic prosperity of the Shire as previous economic reports have indicated. A reliable, efficient and fit for purpose crossing is therefore essential.
- Environmental:** There will be some minor environmental impacts to increased road footprint as part of this crossing solution. These will be mitigated by the need to gain the necessary planning approvals from the relevant environmental agencies.
- Social:** Similarly to the economic implication, the Daintree River crossing plays an important part in the social aspects of the community by providing a vital transport link for the community north of the Daintree River. The recommended crossing solution of a single ferry somewhat maintains the communities desire to remain with a ferry crossing solution.

CORPORATE/OPERATIONAL PLAN, POLICY REFERENCE

This report has been prepared in accordance with the following:

Corporate Plan 2019-2024 Initiatives:

Theme 2 - Fostering Sustainable Economic Growth

A robust economy is at the heart of a thriving community and enables investment in environmental protection. While our remoteness is a key attribute, it also presents challenges for attracting new business and investment. We must also meet the challenges of fierce competition in the tourism sector. Council will partner with industry to build, diversify and promote the Douglas economy. Council will design and deliver infrastructure, strategies and services that support the local economy and businesses.

Goal 1 - We will build appropriate infrastructure and deliver services that connect and support businesses.

Operational Plan 2021-2022 Actions:

2.1.1 - Develop plans for two ferry solution and required infrastructure.

COUNCIL'S ROLE

Council can play a number of different roles in certain circumstances and it is important to be clear about which role is appropriate for a specific purpose or circumstance. The implementation of actions will be a collective effort and Council's involvement will vary from information only through to full responsibility for delivery.

The following areas outline where Council has a clear responsibility to act:

- Service Provider** Council provides many services to the community from roads and waste services to libraries and recreational facilities. Services evolve over time and it is the Council's mission to ensure that these services are appropriate, delivered efficiently, and designed with the customer at the centre.

CONSULTATION

Internal: Council Officers, Departmental Managers, CEO

19 Oct 21 Councillor Workshop – Project Update and Strategy Direction
9 Nov 21 – Councillor Workshop – Concept & Approvals Pre-lodgment
14 Dec 21 – Councillor Workshop – Approvals Pre-lodgment Delay and confirmation of Councillor requirements for project
26 Apr 22 – Councillor Workshop – Approvals Pre-Lodgment Advice
12 Jul 22 – Councillor Workshop – Ferry Service Options & recommendation

External: Design Consultants, SARA agencies, AMSA, WTMA

COMMUNITY ENGAGEMENT

- Community Engagement Plan – Daintree River Ferry Contract Renewal July 2018
- Final Report on Community Engagement – Feb 2019
- Compass Research Report – Bridge v Ferry for the Daintree River – Dec 2020
- Douglas Shire Council Report – compilation of all submissions – Dec 2020

ATTACHMENTS

Nil.