



**ORDINARY MEETING NO. 8/25
WEDNESDAY, 27 AUGUST 2025**

OPEN AGENDA

Councillors George Seymour (Chairperson), Michelle Byrne, Phil Truscott, Paul Truscott, Daniel Sanderson, Michelle Govers, Lachlan Cosgrove, John Weiland, Denis Chapman, Sara Faraj and Zane O'Keefe

Councillors are advised that an **ORDINARY MEETING** will be held in the Fraser Coast Regional Council Chambers, Kent Street, Maryborough on **WEDNESDAY, 27 AUGUST 2025 at 10:00AM.**

A handwritten signature in black ink, appearing to read "Ken Diehm", is positioned above the name and title.

**KEN DIEHM
CHIEF EXECUTIVE OFFICER**

Fraser Coast Regional Council acknowledges the traditional owners of the land upon which we meet today.

BUSINESS

ITEM NO. PAGE NO.

ORD 1 OPENING PRAYER

ORD 2 APOLOGIES AND LEAVE OF ABSENCE

ORD 3 DISCLOSURE OF INTERESTS

In accordance with the provisions of the Local Government Act 2009, Councillors are required to declare a "Prescribed Conflict of Interest" or "Declarable Conflict of Interest" that may exist on any item on the agenda of the Council or Committee Meeting.

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	Nil	
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	Nil	

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Council resolves that under the Local Government Regulation 2012 the Meeting be closed to the public.

ORD 15.1 Request for Lease of Council Land - Fuel Supplier - Hervey Bay, Airport -

Section 254J(3) (g) – negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government

ORD 15.2 Contract for Sale 7-19 Hillyard Street, Pialba -

Section 254J(3) (g) – negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government

ORD 16 LATE ITEMS**ORD 16.1 Late Open Reports****ORD 16.2 Late Confidential Reports**

ITEM NO: ORD 5.1



**MINUTES OF THE ORDINARY MEETING NO. 7/25
HELD IN THE FRASER COAST REGIONAL COUNCIL CHAMBERS, HERVEY BAY COUNCIL CHAMBERS,
77 TAVISTOCK STREET, HERVEY BAY
ON WEDNESDAY, 23 JULY 2025 COMMENCING AT 10:00AM**

PRESENT: Councillor George Seymour (Chairperson)
Councillor Michelle Byrne
Councillor Phil Truscott
Councillor Paul Truscott
Councillor Daniel Sanderson
Councillor Michelle Govers
Councillor Lachlan Cosgrove
Councillor John Weiland
Councillor Denis Chapman
Councillor Sara Faraj
Councillor Zane O'Keefe

STAFF IN ATTENDANCE: Chief Executive Officer, Mr Ken Diehm
Director Infrastructure Services, Mr Davendra Naidu
(Acting) Director Water & Waste Services, Mr Umur Natus-Yildiz
Executive Manager Transformation, Assets & Information, Mr Paul Fendley
Executive Manager Regulatory Services, Mr Steven Gatt
Executive Manager Economic Development & Tourism, Ms Debra Howe
Meeting Secretary, Ms Bianca Wilson

Mayor George Seymour acknowledged the traditional owners of the land upon which we meet today, the Butchulla people and paid respects to the elders past, present and emerging.

ORD 1 OPENING PRAYER

George Seymour
Mayor – Fraser Coast Regional Council

ORD 2 APOLOGIES

Nil

ORD 3 DISCLOSURE OF INTERESTS

Nil

ORD 4 MAYORAL MINUTES

ORD 4.1 LGAQ Motion - State Responsibility for Bike Lane Infrastructure

RESOLUTION (George Seymour)

That Council endorse the following as a motion to submit to the Local Government Association of Queensland as a conference motion:

That LGAQ call upon the Queensland Department of Transport and Main Roads (TMR) to take full responsibility for the funding, construction, and ongoing maintenance of dedicated bike lanes, or active transport corridors, on all state-controlled roads that pass through urban, residential, and commercial areas.

Carried Unanimously

ORD 4.2 Improving Community Safety, Connectivity and Wellbeing

RESOLUTION (George Seymour)

That a report be provided on the most effective and efficient way to connect West Spring Way with the Mary to Bay Rail Trail.

Carried Unanimously

ORD 4.3 Improving access to Riverside Nature-based Parklands

RESOLUTION (George Seymour)

That council be provided with a report that investigates possible options for better utilisation of the flood buyback properties adjacent to Prickett Aquatic Area, noting flooding and other planning issues, so that the whole site can better serve the community as parklands.

Carried Unanimously

ORD 5 CONFIRMATION OF MINUTES OF MEETINGS

ORD 5.1 Ordinary Meeting No. 6/25 – 30 June 2025

RESOLUTION (George Seymour/Phil Truscott)

That Council:

1. Amend the minutes of the Ordinary Meeting No.6/25 held 30 June 2025 as follows:

“Update the wording from “endorse” to “adopt” at item ORD 16.1.2 – Regulatory Services Fees and Charges Amendment, to clearly communicate the Council’s intended action for future reference and interpretation.”
2. Confirm the minutes of the Ordinary Meeting No.6/25 held 30 June 2025, as amended.

Carried Unanimously

ORD 6 OUTSTANDING ACTIONS

ORD 6.1 Open Resolutions Register - July 2025

RESOLUTION (Michelle Byrne/Sara Faraj)

That Council receive and note the Open Resolutions Register – July 2025 as per Attachment 1 (eDocs#3752248).

Carried Unanimously

ORD 7 ADDRESSES/PRESENTATIONS

ORD 7.1 Community Presentations

Dr Paul Twomey

Dr Paul Twomey raised concerns in relation to vegetation management on the Esplanade in the vicinity of Halcro Street and the blocking of views.

Melissa Ngatai

Melissa Ngatai raised concerns in relation to vegetation management on the Esplanade in the vicinity of Halcro Street and the blocking of views.

RESOLUTION (Michelle Govers/John Weiland)

That Council note the verbal report provided by the Chief Executive Officer on the matters raised during Community Presentations.

Carried Unanimously

ORD 8 DEPUTATIONS

Nil

ORD 9 PETITIONS

ORD 9.1 Receipt of Petitions

Nil

ORD 10 COMMITTEES' REPORTS

ORD 10.1 Informal Meetings - Record of Matters Discussed

RESOLUTION (Michelle Byrne/Sara Faraj)

That Council receive and note the record of matters discussed of Council Informal Meetings held between 1 June 2025 to 30 June 2025 as detailed in the attachments.

Carried Unanimously

ORD 10.2 Water and Waste Services Advisory Committee Meeting Minutes - 20 June 2025

RESOLUTION (Michelle Byrne/Sara Faraj)

That Council receive and note the Minutes of the Water and Waste Services Advisory Committee Meeting held on 20 June 2025 as detailed in Attachment 1.

Carried Unanimously

ORD 11 OFFICERS' REPORTS

ORD 11.1.1 Councillor Meeting Attendance for August 2025

RESOLUTION (Sara Faraj/Michelle Govers)

That Council:

1. Approve the following meetings for the period 1 August 2025 to 31 August 2025 as relevant meetings which require the attendance and meaningful participation of all Councillors as per the Councillor Code of Conduct and Councillor Attendance Policy:

Date of Meeting	Time of Meeting	Meeting
4 August 2025	10.00am	Councillor and Executive Briefing
6 August 2025	9.00am	Council Concept Forum
11 August 2025	10.00am	Councillor and Executive Briefing
13 August 2025	9.00am	Council Concept Forum
18 August 2025	10.00am	Councillor and Executive Briefing
20 August 2025	10.00am	Council Agenda Forum

25 August 2025	10.00am	Councillor and Executive Briefing
27 August 2025	9.00am	Community Presentations

2. Note the requirement to attend the Ordinary Meeting scheduled for 27 August 2025.

Carried (8/3)

FOR: Councillor George Seymour
Councillor Michelle Byrne
Councillor Daniel Sanderson
Councillor Michelle Govers
Councillor John Weiland
Councillor Denis Chapman
Councillor Sara Faraj
Councillor Zane O'Keefe

AGAINST: Councillor Phil Truscott
Councillor Paul Truscott
Councillor Lachlan Cosgrove

ORD 11.2.1 2024/25 Operational Plan Progress Report - April to June 2025

RESOLUTION (Phil Truscott/Sara Faraj)

That Council:

1. Receive and note the 2024/25 Operational Plan Progress Report for the period ending 30 June 2025 (**Attachment 1**).
2. Note that outstanding items from the 2024/25 Operational Plan will not be transferred to the 2025/26 Operational Plan and no further reporting to Council will occur for these items.

Carried Unanimously

ORD 11.2.2 Request for Ergon Easement - Disposal of Interest in Land - Urraween Reservoir Site

RESOLUTION (Denis Chapman/Lachlan Cosgrove)

That Council:

1. Pursuant to Local Government Regulation 2012, Chapter 6, Section 236 (1)(b)(i), which permits Council to dispose of an interest in land (a valuable non-current asset) to a government agency without inviting tenders or conducting an auction, resolves to provide an easement over part of as Lot 62 SP286719, Madsen Road, Urraween, to Ergon Energy for the purposes of providing infrastructure upgrades to support the Urraween Reservoir Site; and
2. Delegates authority to the Chief Executive Officer to negotiate and execute an easement over part of Lot 62 SP286719, Madsen Road, Urraween, with Ergon Energy as outlined in this report.

Carried Unanimously

ORD 11.2.3 LGAQ Conference - Motions

RESOLUTION (Sara Faraj/Denis Chapman)

That Council:

1. Approve the submission of Motion 1 – Request for State and Federal Governments to Commit to Ongoing Betterment Funding, to the Local Government Association of Queensland for consideration at the LGAQ Annual Conference General Meeting as per Attachment 1.
2. Approve the submission of Motion 2 – Financial Assistance for Offshore Infrastructure, to the Local Government Association of Queensland for consideration at the LGAQ Annual Conference Annual General Meeting as per Attachment 2.
3. Approve the submission of Motion 3 – Technical Design Standards for Climate Resilience, to the Local Government Association of Queensland for consideration at the LGAQ Annual Conference Annual General Meeting as per Attachment 3.

Carried Unanimously

ORD 11.2.4 Procurement Policy Review

RESOLUTION (Sara Faraj/Michelle Byrne)

That Council adopt the amended Procurement Policy (#837195) as per Attachment 1.

Carried Unanimously

ORD 11.2.5 Request for New Leases - Mcfie Park Sporting Fields

RESOLUTION (Sara Faraj/John Weiland)

That Council:

1. Pursuant to *Local Government Regulation 2012*, Chapter 6, Sections 236 (1) (b) (ii), resolves to apply the exemption to dispose of an interest in land to the Hervey Bay Surf Life Saving Club Inc over part of an existing shed located at Mcfie Park sporting fields, Tavistock Street, Torquay and described as Lot 3 on RP35214, without the need for a tender or auction.
2. Pursuant to *Local Government Regulation 2012*, Chapter 6, Sections 236 (1) (b) (ii), resolves to apply the exemption to dispose of an interest in land to the Beachhouse Fishing Club Inc over part of an existing shed located at Mcfie Park sporting fields, Tavistock Street, Torquay and described as Lot 3 on RP35214, without the need for a tender or auction.
3. Delegates authority to the Chief Executive Officer to determine the terms and conditions satisfactory to Council and otherwise negotiate and execute the lease.

Carried Unanimously

ORD 11.3.1 Reef Guardian Council Councillor Nominations

RESOLUTION (Zane O'Keefe/John Weiland)

That Council:

1. Confirm and accept Councillor Zane O'Keefe as the primary representative and Councillor Michelle Govers as a proxy for the Executive Committee of the Reef Guardian Council program.
2. Delegate authority to the Chief Executive Officer to finalise and submit documentation to the Reef Authority to become a member of the Reef Guardian Councils program.

Carried Unanimously

ORD 11.4.1 Bushfire Risk Mitigation Strategy

RESOLUTION (Denis Chapman/Lachlan Cosgrove)

That Council adopt and endorse the Bushfire Risk Mitigation Strategy as the guiding framework for bushfire risk mitigation activities across Council-controlled land in the Fraser Coast Region.

Carried Unanimously

ORD 12 MATTERS/MOTIONS OF WHICH DUE NOTICE HAS BEEN GIVEN

ORD 12.1 Condolence Motion - Leith Bouilly

RESOLUTION (George Seymour/Phil Truscott)

That Council acknowledges with sadness the passing of Leith Bouilly and extends its sincere condolences to her family and loved ones.

As a mark of respect, a one minute standing silence was observed

Carried Unanimously

ORD 12.2 Water and Waste Infrastructure Connections

RESOLUTION (Paul Truscott/Phil Truscott)

That Council:

1. Be provided with a report investigating the operational and financial implications of not levying water and sewerage utility charges for properties with pre-existing onsite infrastructure that are impacted by the expansion of Councils water and sewerage infrastructure and service areas.
 2. Consider in the report options to defer the application of water and sewerage utility charges, or inclusion of the property in the service area, until:
 - the property changes ownership, or
 - a period of five (5) years has elapsed since property owners are given notice that
-

their property has access to Councils water and sewerage infrastructure, or

- the property owner makes application to connect to the water and / or sewerage infrastructure (if less than 5 years since notice was provided).

Carried Unanimously

ORD 12.3 Condolence Motion - Lillian Coyne

RESOLUTION (Denis Chapman/Phil Truscott)

That Council expresses its sincere condolences on the passing of Lillian Muriel Davis (later Brooks, then Coyne), and acknowledges her lifelong contribution to the Fraser Coast region, particularly the Bauple and Tiaro communities, through her public service, and community involvement, and extends heartfelt sympathies to her family, friends, and all who were privileged to have known her.

As a mark of respect, a one minute standing silence was observed

Carried Unanimously

Councillor Daniel Sanderson left the Chamber at 11:09am.

Councillor Daniel Sanderson returned to the Chamber at 11:11am.

Councillor John Weiland left the Chamber at 11:12am.

Councillor John Weiland returned to the Chamber at 11:14am.

ORD 12.4 Request for Report relating to Ibis Boulevard Connection

MOTION (Lachlan Cosgrove/John Weiland)

That Council be provided a report:

1. That considers the deferral of the opening of any new connection of Ibis Boulevard between Eli Waters and Point Vernon until the completion of the signalisation upgrade of the Old Maryborough Road/Tooth Street intersection.
 2. That considers if and when a “fourth exit” coming from the existing Endeavour Way/Ibis Boulevard roundabout is constructed it be classified as a “higher order” road (similar in width/scale to Ibis Boulevard running South-East from this location) and the possibility of Council retrospectively pursuing this outcome on any outstanding approvals via negotiation/agreement, including an estimate of additional costs to be incurred by Council if this change was implemented.
 3. That provides the latest rationale for proceeding with the connection and opening of Ibis Boulevard (between Eli Waters and Point Vernon). In particular, Council should re-check DTMRs position, provide any updated traffic data and potential impacts of the connection, examine the ability for the continued completion of a pedestrian connection happening (regardless of a vehicular
-

connection), and any other Council or community interest in the connection. Further to providing that rationale, outline and recommend whether the connection should be completed as planned.

Lost (4/7)

FOR: Councillor George Seymour
Councillor Paul Truscott
Councillor Daniel Sanderson
Councillor Lachlan Cosgrove

AGAINST: Councillor Michelle Byrne
Councillor Phil Truscott
Councillor Michelle Govers
Councillor John Weiland
Councillor Denis Chapman
Councillor Sara Faraj
Councillor Zane O'Keefe

FORESHADOWED MOTION (Michelle Byrne)

That Council refers the matter of Ibis Boulevard Connection to the next reasonably practicable briefing session to enable councillors to fully consider the matter to seek advice from Council officers and other impacted stakeholders.

The foreshadowed motion became the motion and was put

RESOLUTION (Michelle Byrne/Denis Chapman)

That Council refers the matter of Ibis Boulevard Connection to the next reasonably practicable briefing session to enable councillors to fully consider the matter to seek advice from Council officers and other impacted stakeholders.

Carried (9/2)

FOR: Councillor George Seymour
Councillor Michelle Byrne
Councillor Phil Truscott
Councillor Paul Truscott
Councillor Michelle Govers
Councillor John Weiland
Councillor Denis Chapman
Councillor Sara Faraj
Councillor Zane O'Keefe

AGAINST: Councillor Daniel Sanderson
Councillor Lachlan Cosgrove

FORESHADOWED MOTION (Lachlan Cosgrove)

That Council be provided a report:

1. That considers the deferral of the opening of any new connection of Ibis Boulevard between Eli Waters and Point Vernon until the completion of the

signalisation upgrade of the Old Maryborough Road/Tooth Street intersection.

Lapsed

ORD 12.5 Request for Report relating to Old Maryborough Road Light Industrial Park Settings

RESOLUTION (Lachlan Cosgrove/Zane O'Keefe)

That Council be provided with a report:

1. Which allows for engagement with businesses and other stakeholders to evaluate the appropriate regulatory parking settings in the light industrial section of Old Maryborough Road between Beach Road and Picnic Street. The engagement should seek to understand business need and establish the best settings to balance customer turnover versus longer parking and all day staff parking.
2. That provides recommendations for changes to regulatory parking settings in this locality, in order to realise the outcomes of any engagement and better serve business and customer needs.

Carried Unanimously

ORD 13 QUESTIONS ON NOTICE

Nil

ORD 14 GENERAL BUSINESS

Nil

ORD 16 LATE ITEMS

ORD 16.1 Late Open Reports

ORD 16.1.1 Organisational Performance Report - June 2025

RESOLUTION (Phil Truscott/John Weiland)

That Council receive and note the Organisational Performance Report for the period ending 30 June 2025 as per Attachment 1.

Carried Unanimously

ORD 16.1.2 Astro Aero Hangar Extension

RESOLUTION (Paul Truscott/John Weiland)

That Council:

1. Approve the extension of the Council owned leased hangar with all construction to be in accordance with relevant Australian Standards and Codes and subject to the Chief Executive Officer's satisfaction.
-

2. Agree to reimburse Astro Aero for the hangar building extensions undertaken at the end of the lease, at the historical value of the upgrades subject to the building being in an acceptable state of repair at handover.
3. Agree that reimbursement of costs will be subject to Astro Aero commencing construction of the hangars in the Aviation Precinct at the end of the lease period.

Carried Unanimously

ORD 15 CONFIDENTIAL

ORD 15.1 Strategic Land Purchase - Hervey Bay Recycled Water Expansion

RESOLUTION (Denis Chapman/Sara Faraj)

That Council:

1. Deem the report/attachment confidential document and be treated as such in accordance with sections 171 and 200 of the *Local Government Act 2009* and that the document remain confidential unless Council decides otherwise by resolution.
2. Approve the purchase of property 5RP218676 as outlined in this report to facilitate future expansion of the Hervey Bay Recycled Water Scheme.
3. Delegate authority to the Chief Executive Officer to finalise settlement of the purchase contract.

Carried Unanimously

ORD 16.2 Late Confidential Reports

Nil

There being no further business, the Meeting closed at 11:18am.

Confirmed at Ordinary Meeting No. 8/25 of the Fraser Coast Regional Council at Maryborough on 27 August 2025.

.....
CHAIRPERSON

FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25

WEDNESDAY, 27 AUGUST 2025

SUBJECT:	OPEN RESOLUTIONS REGISTER - AUGUST 2025
DIRECTORATE:	ORGANISATIONAL SERVICES
RESPONSIBLE OFFICER:	DIRECTOR ORGANISATIONAL SERVICES
AUTHOR:	CORPORATE GOVERNANCE OFFICER
LINK TO CORPORATE PLAN:	Focused Organisation and Leadership. Demonstrate good leadership, and effective and ethical decision-making to foster confidence within our community.

1. PURPOSE

The purpose of this report is to provide Council with an update on the status of outstanding Council Resolutions.

2. EXECUTIVE SUMMARY

N/A

3. OFFICER'S RECOMMENDATION

That Council receive and note the Open Resolutions Register – August 2025 as per Attachment 1 (eDocs#3752248).

4. BACKGROUND & PREVIOUS COUNCIL CONSIDERATION

N/A

5. PROPOSAL

Attachment 1 provides details of the status of outstanding Council Resolutions at the reporting date.

6. FINANCIAL & RESOURCE IMPLICATIONS

N/A

7. POLICY & LEGAL IMPLICATIONS

N/A

8. RISK IMPLICATIONS

N/A

9. CRITICAL DATES & IMPLEMENTATION

N/A

10. CONSULTATION

N/A

11. CONCLUSION

N/A

12. ATTACHMENTS

1. [Open Resolutions Register - August 2025](#) ↓



OPEN RESOLUTIONS REGISTER

Directorate	Reference	Resolution Details	Target Date	Status
Ordinary Meeting No.12/22 –15 December 2022 (Docs#4703549)				
SC&D	ActID7055	<p>ORD 11.3.2 – Wetside Water Park Oceanview Boardwalk</p> <p>RESOLUTION (David Lee/Jade Wellings)</p> <ol style="list-style-type: none"> 1. That Council approve the removal of the Oceanfront Boardwalk at Wetside as detailed in the report. 2. That a report be provided to Council on options to make the beach and the coffee shop/cafe more accessible from WetSide. 3. That Council be provided with a report on the feasibility of constructing a revetment wall on Alignment A (Natural Alignment), pursuant to the GHD (2017) Consultancy Report. <p style="text-align: right;">Carried Unanimously</p>	<p>Revised Nov 2025</p> <p>Revised Aug 2025</p> <p>Revised May 2025</p> <p>Revised Apr 2025</p> <p>Revised Mar 2025</p> <p>Revised Jan 2025</p> <p>Revised Dec 2024</p> <p>Revised Oct 2024</p>	<p>(Aug 25) A Councillor Concept Forum on the adopted Coastal Futures Strategy and implementation plan is scheduled to occur 15 September 2025. An officer's report will be subsequently finalised for Council to consider priority actions.</p> <p>(Jul 25) Infrastructure Services provided brief on potential coastal protection options on 16 June 2025, which assists potential tabling of Council report at the August Ordinary Council Meeting.</p> <p>(Apr 25 – Jun 25) Impacts from recent weather events (including TC Alfred) are under investigation and will potentially delay tabling Council report until August Ordinary Council Meeting.</p> <p>(Feb 25 – Mar 25) The availability of suitable materials for coastal protection works are being assessed as part of the feasibility assessment for coastal protection works to protect the Wetside Water Park. Council report proposed to be tabled at the May Ordinary Council Meeting.</p> <p>(Dec 24 – Jan 25) Councillor briefing was held on 18 November 2024. Additional information is being collated for Council's further consideration.</p> <p>(Nov 24) A Councillor briefing on conceptual design is proposed for November, in advance of reports in relation to Items 2 and 3.</p> <p>(Oct 24) Concept plan received and under review.</p>



OPEN RESOLUTIONS REGISTER

Directorate	Reference	Resolution Details	Target Date	Status
			<p>Revised Aug 2024</p> <p>Initial Jun 2024</p>	<p>(Sept 24) An internal working group is scheduled for 23 September to review this matter and undertake site inspection. Councillors will also visit the facility as part of an Esplanade Study Tour to be undertaken on 13 September 2024.</p> <p>(Aug 24) Survey data is under review as part of the investigating feasibility of potential coastal protection works and improved accessibility.</p> <p>(July 24) Survey has been recently undertaken, which will help to inform the investigation work already underway.</p> <p>(June 24) Demolition of the Boardwalk has been completed as planned and consultants have been engaged to investigate options and a feasibility assessment for potential coastal protection works.</p> <p>(May 24) Demolition of the Boardwalk will commence in May 2024. Demolition and removal will only occur for the pylons located below the observable Highest Astronomical Tide (HAT), as well as the substructure and decking installed to pylons above the HAT. The pylons located above the HAT will remain. Removal of the substructure and decking will be performed whilst working from the beach.</p> <p>(Apr 24) Item 1 completed by IS. Relevant officers from across the organisation have met to plan a course of action to progress design of foreshore protection works subject to the 2024/25 budget deliberations.</p> <p>(Dec 23 - Mar 24) No change to current status.</p>



OPEN RESOLUTIONS REGISTER

Directorate	Reference	Resolution Details	Target Date	Status
				<p>(Nov 23) Preliminary works associated with the relocation of services commenced on 6 August 2023 and are planned for completion by the end of February 2024. The removal of the superstructure and pier foundations will commence early March and be completed by 30 May 2024 with the final landscaping and reinstatement works completed by the end of June 2024.</p> <p>(Sep 23 – Oct 23) Item 2 has been programmed with new stairs planned to be installed adjacent the café. Items 1 and 3 will be considered in future years when funding is allocated to progress the project.</p> <p>(Jan 23 – Aug 23) Prior to developing a report to Council, it is proposed to list this matter for discussion at a future briefing session.</p>
Ordinary Meeting No.2/25 – 26 February 2025 (eDocs# 5169215)				
OS	ActID 8066	<p>ORD 11.2.5 – Redevelopment Of Pialba and Torquay Caravan Parks</p> <p>RESOLUTION (Lachlan Cosgrove/Zane O'Keefe) That Council:</p> <ol style="list-style-type: none"> Resume the redevelopment of the Pialba Caravan Park utilising the current park design. Endorse the development of concept layout plans for the Torquay Caravan Park, based on the two options outlined in this report with the following amendments to the Proposal; 	<p>Revised Oct 2025</p> <p>Initial Aug 2025</p>	<p>(Aug 25) ITEM 2: -5 - On-ground engagement for this project is due to commence in late September/early October. Councillors briefed on draft design options in July 2025, community consultation planning underway. ITEM 1: CLOSED</p> <p>(Jul 25) <u>Item 1</u>: Tender Awarded, Contractor mobilisation to site – end July 2025. Recommend CLOSE Item 1. <u>Items 2-5</u>: Public Consultation planning still underway, target is mid-late September for consultation commencement.</p> <p>(Jun 25) <u>Item 1</u>: Pialba Tender awarded at Ord 05/25 Meeting.</p>



OPEN RESOLUTIONS REGISTER

Directorate	Reference	Resolution Details	Target Date	Status
		<ul style="list-style-type: none"> change the words “Key elements for layout plan development” to “options for consideration”. change Option A to “Open Space” and, delete the word “natural” from Option A goal. change the words “design scope to only encompass the current Torquay Caravan Park land Boundary” to “design scope to focus on current Torquay Caravan Park land, and also consider connectivity to the Sea Scouts Hall and Sailing Club on either side of the land”, in both Option A & B. <ol style="list-style-type: none"> 3. Authorise the Chief Executive Officer to further engage with Councillors to develop a community consultation program at the Consult level as per the IAP2 public participation Spectrum. 4. Undertake community consultation to seek community feedback on the identified options for the Torquay Caravan Park. 5. Be provided with a further report with the outcomes of the community consultation. 		<p><u>Items 2-5</u>: Public Consultation planning in progress with internal departments.</p> <p>(May 25) <u>Item 1</u>: Pialba Tender closed and under Panel Assessment. <u>Items 2-5</u>: No change.</p> <p>(Apr 25) <u>Item 1</u>: Construction Tender for Pialba advertised and closes 17/4/2025.</p> <p><u>Items 2-5</u>: Consultant engagement is being finalised for alternate uses for Torquay, concept plans and public consultation will follow.</p> <p>(Mar 25) Request for Quotation to develop concept plans has been drafted and appointment of consultant expected in late March 25. The tender for redevelopment of Pialba Caravan Park will be advertised in March 2025.</p>



OPEN RESOLUTIONS REGISTER

Directorate	Reference	Resolution Details	Target Date	Status
		Carried (7/3)		
IS	ActID 8079	<p>ORD 12.1 – Request for Report Regarding Community Garden Site on Endeavour Way, Eli Waters</p> <p>RESOLUTION (Lachlan Cosgrove/Daniel Sanderson) That Council be provided with a report that:</p> <ol style="list-style-type: none"> 1. Details the history, management & status of the community garden site on Endeavour Way, Eli Waters, and 2. Provides options, including cost estimates, to decommission the site to provide improved community use and enjoyment. <p style="text-align: right;">Carried Unanimously</p>	Initial Aug 2025	<p>(Aug 25) COMPLETED – Report titled ‘Community Garden Site on Endeavor Way, Eli Waters’ on the August Agenda.</p> <p>(Mar 25 – Jul 25) Report to be prepared and submitted to the August 2025 Ordinary Council Meeting.</p>
Ordinary Meeting No.4/25 – 28 April 2025 (eDocs#5205157)				
IS	ActID 8185	<p>ORD 9.1.1 – Request for Effective Drainage of Hyne, Queen and Warry Streets</p> <p>RESOLUTION (Daniel Sanderson/Phil Truscott) That the petition be received and referred to the Chief Executive Officer for consideration and a report to Council.</p> <p style="text-align: right;">Carried Unanimously</p>	Initial Sep 2025	<p>(Aug 25) Report to be prepared and submitted to the September 2025 Ordinary Council Meeting.</p> <p>(May 25 - Jul 25) Report to be prepared and submitted to the September 2025 Ordinary Council Meeting.</p>
Ordinary Meeting No.5/25 – 28 May 2025 (eDocs#521796)				



OPEN RESOLUTIONS REGISTER

Directorate	Reference	Resolution Details	Target Date	Status
S, C & D	ActID 8209	<p>ORD 12.1 - Request for a report on the effectiveness of Council's Sun Smart Policy RESOLUTION (George Seymour/Paul Truscott)</p> <p>That a report be provided on the effectiveness of council's Sun Smart Policy since it was adopted on 22 August 2018 and, where identified, provide options for improvement to better realise the goals of the policy.</p> <p style="text-align: right;">Carried Unanimously</p>	Revised Sep 2025	(Aug 25) Council report proposed to be presented at the September Ordinary meeting.
			Initial Aug 2025	<p>(Jul 25) Research and review of the policy has commenced with engagement with relevant internal teams to be undertaken as soon as staff resources permit.</p> <p>(Jun 25) Allocated to relevant officer to commence review of the policy.</p>
IS	ActID 8211	<p>ORD 12.3 - Request for Report on Feasibility of One-Way Street Trial in Adelaide Street, Maryborough RESOLUTION (Paul Truscott/Daniel Sanderson)</p> <p>That Council be provided with a report on the feasibility of conducting a one-way street trial in Adelaide Street, Maryborough between Ellena Street and Kent Street, using temporary infrastructure.</p> <p style="text-align: right;">Carried Unanimously</p>	Initial Dec 2025	<p>(Aug 25) Report to be prepared and submitted to the December 2025 Ordinary Council Meeting.</p> <p>(Jun 25 - Jul 25) Report to be prepared and submitted to the December 2025 Ordinary Council Meeting.</p>
Ordinary Meeting No.6/25 – 30 June 2025 (eDocs#5249035)				
IS	ActID 8275	<p>ORD 9.1.2 Request for Council to Upgrade the Traffic Restrictions between Wetside and Beach Road RESOLUTION (Sara Faraj/Zane O'Keefe)</p> <p>That the petition be received and referred to the Chief Executive Officer for consideration and report to Council.</p> <p style="text-align: right;">Carried Unanimously</p>	Initial Dec 2025	<p>(Aug 25) Report to be prepared and submitted to the December 2025 Ordinary Council Meeting.</p> <p>(Jul 25) Report to be prepared and submitted to the December 2025 Ordinary Council Meeting.</p>



OPEN RESOLUTIONS REGISTER

Directorate	Reference	Resolution Details	Target Date	Status
SC&D	ActID8276	<p>ORD 9.1.3 Request for Council action relating to excess water overflow from the development at Colyton Street, Torquay RESOLUTION (John Weiland/Sara Faraj) That the petition be received and referred to the Chief Executive Officer for consideration and a report to Council.</p> <p style="text-align: right;">Carried Unanimously</p>	Initial Aug 2025	<p>(Aug 25) COMPLETED - Report titled 'Response to the Request for Council Action Relating to Excess Water Overflow from the Development at Colyton Street, Torquay' is listed on the August Ordinary Meeting agenda.</p> <p>(Jul 25) Allocated to the Development Engineers to investigate.</p>
Ordinary Meeting No.7/25 – 2 Jul 2025 (eDocs#5249755)				
IS	ActID8305	<p>ORD 4.2 Improving Community Safety, Connectivity and Wellbeing RESOLUTION (George Seymour) That a report be provided on the most effective and efficient way to connect West Spring Way with the Mary to Bay Rail Trail.</p> <p style="text-align: right;">Carried Unanimously</p>	Initial Jan 2026	(Aug 25) Report to be prepared and submitted to the January 2026 Ordinary Council Meeting.
S,C&D	ActID8306	<p>ORD 4.3 Improving access to Riverside Nature-based Parklands RESOLUTION (George Seymour) That Council be provided with a report that investigates possible options for better utilisation of the flood buyback properties adjacent to Prickett Aquatic Area, noting flooding and other planning issues, so that the whole site can better serve the community as parklands.</p> <p style="text-align: right;">Carried Unanimously</p>	Initial Nov 2025	(Aug 25) Allocated to relevant officer to commence investigation and review of Council's Park Strategy.



OPEN RESOLUTIONS REGISTER

Directorate	Reference	Resolution Details	Target Date	Status
WWS	ActID8319	<p>ORD 12.2 Water and Waste Infrastructure Connections RESOLUTION (Paul Truscott/Phil Truscott) That Council:</p> <ol style="list-style-type: none"> 1. Be provided with a report investigating the operational and financial implications of not levying water and sewerage utility charges for properties with pre-existing onsite infrastructure that are impacted by the expansion of Councils water and sewerage infrastructure and service areas. 2. Consider in the report options to defer the application of water and sewerage utility charges, or inclusion of the property in the service area, until: <ul style="list-style-type: none"> - the property changes ownership, or - a period of five (5) years has elapsed since property owners are given notice that their property has access to Councils water and sewerage infrastructure, or - the property owner makes application to connect to the water and / or sewerage infrastructure (if less than 5 years since notice was provided). <p style="text-align: right;">Carried Unanimously</p>	Initial Dec 2025	(Aug 25) Initial discussions have been conducted with the Water and Waste Services team regarding infrastructure connections. Further advice is currently being sought from other Councils, with responses pending.
IS	ActID8322	<p>ORD 12.5 Request for Report relating to Old Maryborough Road Light Industrial Park Settings RESOLUTION (Lachlan Cosgrove/Zane O'Keefe)</p>	Initial Dec 2025	(Aug 25) Report to be prepared and submitted to the December 2025 Ordinary Council Meeting.



OPEN RESOLUTIONS REGISTER

Directorate	Reference	Resolution Details	Target Date	Status
		<p>That Council be provided with a report:</p> <ol style="list-style-type: none"> Which allows for engagement with businesses and other stakeholders to evaluate the appropriate regulatory parking settings in the light industrial section of Old Maryborough Road between Beach Road and Picnic Street. The engagement should seek to understand business need and establish the best settings to balance customer turnover versus longer parking and all day staff parking. That provides recommendations for changes to regulatory parking settings in this locality, in order to realise the outcomes of any engagement and better serve business and customer needs. <p style="text-align: right;">Carried Unanimously</p>		

QUESTIONS ON NOTICE				
Directorate	Reference	Question Details	Target Date	Status
Nil	Nil	Nil	Nil	Nil

FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25

WEDNESDAY, 27 AUGUST 2025

PETITION RESPONSE REPORT

SUBJECT: DRAINAGE - HYNE AND QUEEN STREET MARYBOROUGH
DIRECTORATE: INFRASTRUCTURE SERVICES
RESPONSIBLE OFFICER: DIRECTOR INFRASTRUCTURE SERVICES
AUTHOR: EXECUTIVE MANAGER INFRASTRUCTURE ENGINEERING

1. BACKGROUND

At Council's Ordinary Meeting on Wednesday, 23 April 2025, Councillor Sanderson tabled a petition, regarding Council providing kerb and channel in Hyne Street and effective drainage of Hyne, Queen and Warry Streets, Maryborough.

2. OFFICER'S RECOMMENDATION

That Council advise the Chief Petitioner that:

1. Council receives numerous requests for roadside drainage and new kerb and channel across the region. Each project undergoes Council's prioritisation process for consideration and possible inclusion on Council's Future Works List and the 10 Year Capital Works Program.
2. Additional drainage in Hyne Street and Council's Park, combined with concrete invert channelling in Hyne Street, has been placed on the Future Works List for funding consideration and possible inclusion in the 10 Year Capital Works Program subject to annual budget deliberations.

3. RESPONSE

Council has undertaken an investigation of the stormwater catchment and drainage characteristics of the area to establish a potential remedy to isolated flooding, property inundation and local drainage network improvements.

The investigation is presented in **Attachment 1** – Petition Investigation Hyne Street Stormwater Drainage #5262783

In summary, the investigation considered options to effectively improve the drainage, or flooding impacts, within individual private properties in Hyne Street and Queen Street and found that any improvement was limited by both the natural ground levels in the private properties, and the need to confine Council works to roadways and land areas which are Council controlled.

However, capital works projects were identified which may improve the efficiency of the road drainage inlet capture during minor-moderate rainfall events and / or may reduce the duration of ponding within the Council controlled park site, which had an additional benefit to adjacent and downstream landholders, by reducing the volume of overland flow during minor-moderate rainfall events.

The outcome of the investigation recommended a staged approach to addressing the local nuisance flooding, recognising that the proposed drainage mitigations will only provide some relief from flooding, but does not make the area flood proof in large events.

It is noted that works in Hyne Street would address ponding issues identified in the recent petition.

Stage 1 - provide anti-ponding solutions located in Lot 11 on M20333 (Council Park Site) between 144 and 148 Queen Street, including the installation of field inlet pits, new road drainage inlets in Hyne Street and an extended outlet line through No 40 and 28 Hyne Street.

Stage 2 – Concrete line table drains in Hyne Street to drain to the inlet pits and provide more capacity in the street system.

The projects were listed and remain listed in the Future Works List for funding consideration and possible inclusion in the 10 Year Capital Works Program subject to annual budget deliberations.

4. ATTACHMENTS

1. Petition Investigation Hyne Street Stormwater Drainage - #5262783 [↓](#)

August 2025

PETITION INVESTIGATION HYNE STREET STORMWATER DRAINAGE

Introduction

At Council's Ordinary Meeting on Wednesday, 23 April 2025, Councillor Sanderson tabled a petition, regarding Council providing kerb and channel in Hyne Street and effective drainage of Hyne, Queen and Warry Streets, Maryborough.

Background

Council has received complaints from residents in Queen Street and Hyne Street about stormwater runoff from the street system flowing into their properties and causing inundation. The typical style of flooding has been reported to occur when the road and street drainage network reaches capacity and the stormwater overtops kerb or table drains and enters properties through driveways and the road verges. The nature of the flooding results in yards, garages and built in under house areas being inundated for short periods of time until the storm events ease. The duration of inundation varies depending upon the rainfall period however, it eventually drains away to the underground and open drainage networks. The majority of the inundation concerns are regarding inconvenience and there are no recorded circumstances where habitable floor levels have been breached.

In context with this observation, a habitable floor level is that part of the dwelling or house used by residents or other occupants, for sleeping, living, cooking or dining, including a basement. It does not mean garages, under house storage areas or enclosed rooms that were originally under house storage. It is important to note that the location is also subject to significant riverine flood depths where housing habitable floor levels are required to be above the riverine flood level.

Residents expressed a desire to meet with elected officials and Council management to raise their concerns at a site meeting and expressly requested Council to provide new kerb and channel, upgrade driveways and improve the underground drainage networks to prevent flooding occurring upon their lands.

Nature of the Drainage Catchment

The area of Queen and Hyne Streets, between Pallas and Warry Streets, consists of a catchment area of approximately six (6) hectares generating runoff from properties between Ann, Queen and Hyne Streets. The runoff generated by the catchment directs flows toward the Queen Street and Hyne Street roadways where the kerb and table drain networks convey the stormwater to underground and above ground drainage infrastructure. The drainage infrastructure is generally a combination of underground pipe networks, roadside table drains and open gullies which are placed in Council controlled land and private property. Within the road areas, are property access crossings consisting of concrete layback kerb and driveways, or small table drain culverts with concrete, gravel or grass access driveways. These driveway crossings generally follow the natural form of the ground and can fall towards, or away from, the properties they service.

Residential development of this area has occurred generally since the 1940's, with the majority of private properties having high-set Queenslander style housing to suitably address the significant riverine flood impacts and reduce the nuisance impacts of rainfall based flooding through the natural overland flow path on their properties. The area contains numerous sag locations, where individual properties are located below the level of the roadway and/or adjacent properties. In some locations, properties have isolated low points that collect runoff water and pond until the water level rises sufficiently to break out and revert back to the natural overland flow paths. In these cases, the natural topography of the properties restricts their ability to drain their land to the road corridors and invariably, isolated inundation or ponding occurs. Where the property is lower than the surrounding landforms, the ponded stormwater runoff can take long periods of time to fully dissipate.

Details of the local topography and drainage infrastructure is depicted on the attached Lidar Imagery plans.

With respect to the plans, the detail indicates a range of land heights where the red/orange colours represent high set land and green/blue represent low set land. Evenly numbered properties 142 to 156 along Queen Street are lower than the road and any stormwater that enters these properties drains along the original natural gully easterly towards Warry Street and the receiving underground system. Property No's 144 and 154 have filled the natural gully and blocked overland flow or installed private culvert infrastructure to allow the overland flow to reach the drainage networks in the street.

Conversely, property No's 34, 38 and 40 in Hyne Street have trapped or sagged topography leading to stormwater ponding within the land until it reaches a height where it can break out. The breakout appears to be in a westerly direction toward No. 40 Hyne Street which has a natural gully draining to the south toward No. 28 and then beyond to the Mary River.

Performance of the Existing Infrastructure

Understanding the chance of different storm events occurring is important for managing flood risk. The chance of a storm event can be described using a variety of terms, but the preferred method is the Annual Exceedance Probability (AEP). A storm with a 1% AEP has a one in a hundred chance of being exceeded in any year and is considered a Q100 major event. Currently, the 1% AEP event is designated as having an 'acceptable' risk for planning purposes nearly everywhere in Australia. Conversely a storm with a 50% AEP has a 1 in 2 chance of being exceeded in any year and is a Q2 minor event.

In technical terms, the design standards for local roadway underground drainage are limited to between 50-10% Average Exceedance Probability (AEP) better known as the Q2 to Q10 storm events only, dependent on the road class. The standard of road drainage in this location is similar to road drainage standards across the Fraser Coast Region and it is noted that local road drainage is built with the limited purpose of capturing road surface runoff generated during minor to moderate rainfall events (only) to maintain road trafficability. In this regard, the underground pipe networks, roadside drainage, table drains and kerb and channels are designed to accommodate the minor storm events. In larger or major storm events, the runoff waters revert to the overland flow paths that were predominately present when the land was originally developed in the 1940's.

Where the capacity of the drainage network is reached, Council applies alternative forms of risk management through the provision of the planning scheme. In this case, to prevent floor levels being inundated, the Planning Scheme requires houses to be built with their habitable floor levels to be above the 1% AEP storm. Or in the case of riverine flooding, habitable floor levels are required to be above the 1 in 100 Mary River predicted flood level.

Prior to the current planning scheme, the highest recorded Mary River Flood event, better known as the 1893 flood, was applied to set minimum habitable floor levels. In the case of the properties in the vicinity of Queen and Hyne Streets, the Mary River Flood level is the guiding minimum habitable floor level requirement and localised minor or major storm events should have no bearing on habitable floor level inundation.

Data provided from the Bureau of Meteorology (BOM) supports that the recent concerns raised by customers followed an isolated rainfall event of high intensity (103mm in 90 mins (2%AEP or Q50 event)) on the 16 March 2021. Standard road and network drainage is not designed or intended to capture events of this magnitude and it is expected that runoff generated in these events will revert to the natural overland flow path, including through private properties where that is the natural alignment.

Photos provided by residents' support that the roadside drainage systems reached capacity and overland flow occurred over driveways and through open park land which ponded on private property. The duration of ponding was variable however, appeared to be a number of hours for the Queen Street residents and over 24 hours for No 34 Hyne Street.

Based upon the information provided by residents and the following investigation, there was no record of lawful habitable floor levels being inundated and the nature of impact aligns with nuisance or inconvenience flooding.

Potential Mitigations and Limitations

Options for Council to effectively improve the drainage or flooding impacts within individual private properties is limited by both the natural ground levels in the private properties and the need to confine Council works to roadways and land areas which are Council controlled.

Limited works options have been identified which may improve the efficiency of road inlet capture during minor-moderate rainfall events and / or reduce the duration of ponding within the Council controlled park site, which will additionally benefit adjacent and downstream landholders by reducing the volume of overland flow during minor-moderate rainfall events.

Option 1 - Anti-ponding solution located in Lot 11 on M20333 (Council Park Site) between 144 and 148 Queen Street, including the installation of field inlet pits, new road drainage inlets and new outlet line.

Option 2 - Hyne St, Maryborough - (Queen St to End) – Concrete lining of the table drain (approx. 600m) both sides, provides for 24 driveway.

Option 3 - Construction of a new stormwater line from the intersection of Warry Street and Queen Street (approximately 320m along Queens Street) towards Brisk Street causeway. Outlet is proposed to be located in the stabilised open channel (40m from Brisk Street causeway).

In review, Option 1 combined with Option 2 offer the following benefits:

- For Queen Street property(s), provides an **anti-ponding solution**, with additional road drainage benefits and outlet arrangement to provide some genuine improvement to ponding durations in all events and ponding depths in minor-moderate intensity rainfall events.
- Network solution wholly contained in Council land and/or roadways.
- Works will directly benefit multiple (3+) private properties and roadway in Queen Street

- It will additionally directly benefit multiple (6+) private properties and roadway drainage in Hyne Street.
- Benefit to further multiple (8+) private properties downstream of Warry Street in reducing the volume of runoff which gets to the intersection and continues as overland flow through the natural gully line draining South-East to the caravan park.

Option 3 provided the following benefits:

- Increased pickup of road flows and runoff from upstream catchment areas for minor to moderate rainfall events (only)
- Decreased overland flow during minor/moderate rainfall events

Option 3 does not however, provide any drainage relief or anti-ponding benefit to private properties when flows exceed road drainage capacity and breaches kerb level on downstream side of Queen Street. In addition, Option 3 does not provide any drainage relief to Hyne Street properties.

Consequently, the preferred mitigations are to combine Options 1 and 2 and deliver in stages.

Stage 1 - provide anti-ponding solutions located in Lot 11 on M20333 (Council Park Site) between 144 and 148 Queen Street, including the installation of field inlet pits, new road drainage inlets in Hyne Street and an extended outlet line through No 40 and 28 Hyne Street.

Stage 2 – Concrete line table drains in Hyne Street to drain to the inlet pits and provide more capacity in the street system.

The mitigation measure allows for additional road drainage benefits and outlet arrangements to provide some genuine improvement to ponding durations in all events and ponding depths in minor-moderate intensity rainfall events. The additional drainage works also have the potential to reduce overland flow in Warry Street.

Indicative location details of the proposed drainage system (highlighted in broken yellow lines) are provided in the attached plan.

It should be noted that the proposed drainage mitigations will only provide some relief from flood but does not make the area flood proof in large events. As indicated above, the properties will receive flooding in events exceeding the minor storm.

Conclusion

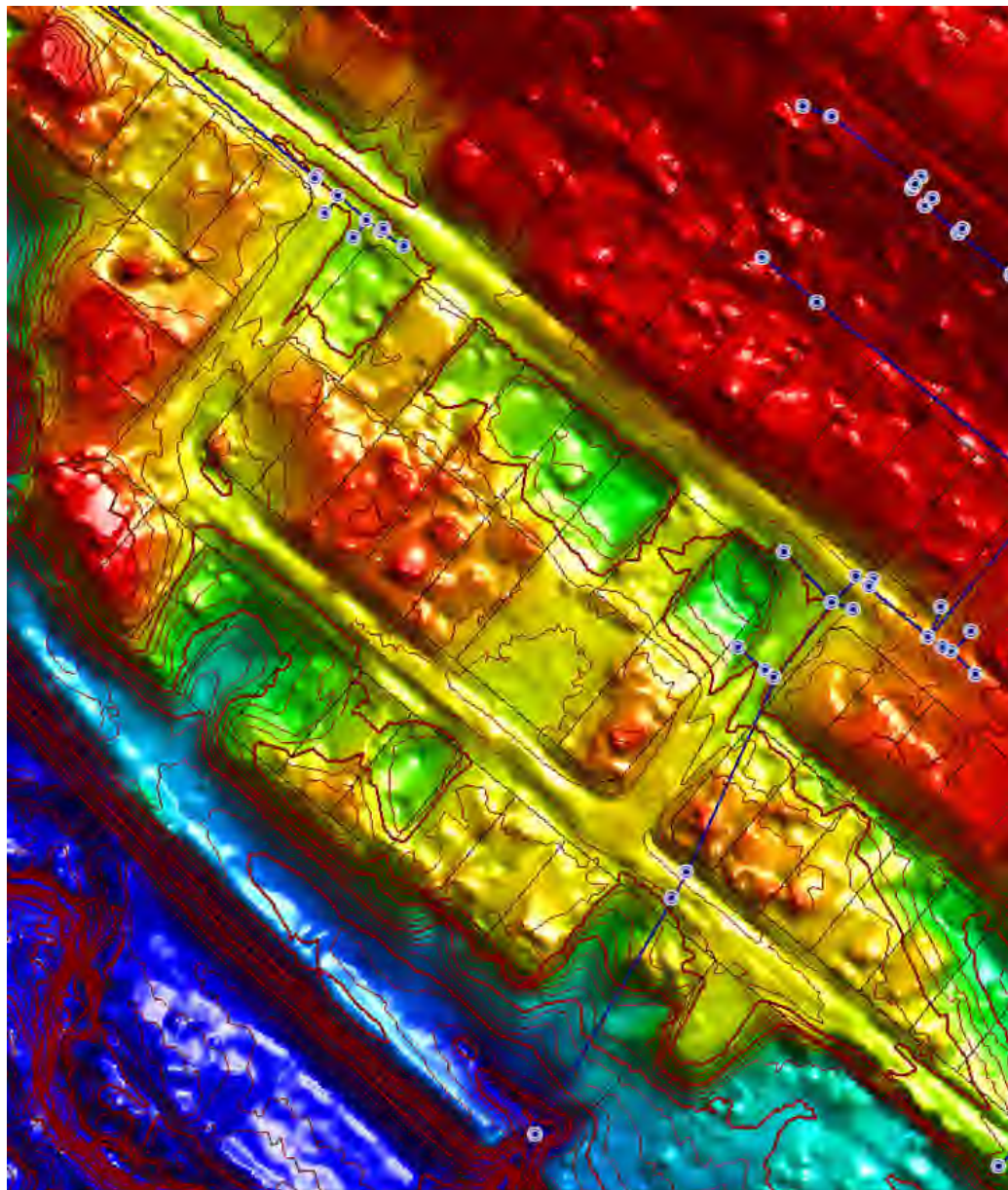
Fraser Coast Regional Council receives numerous requests for roadside drainage within the region to be upgraded. Each project undergoes Council's prioritisation process for consideration and possible inclusion on Council's Future Works List and the 10 Year Capital Works Program. I advise that additional drainage in Hyne Street and Council's Park, combined with concrete invert channelling in Hyne Street as noted above, will be listed for funding consideration in future budget deliberations.

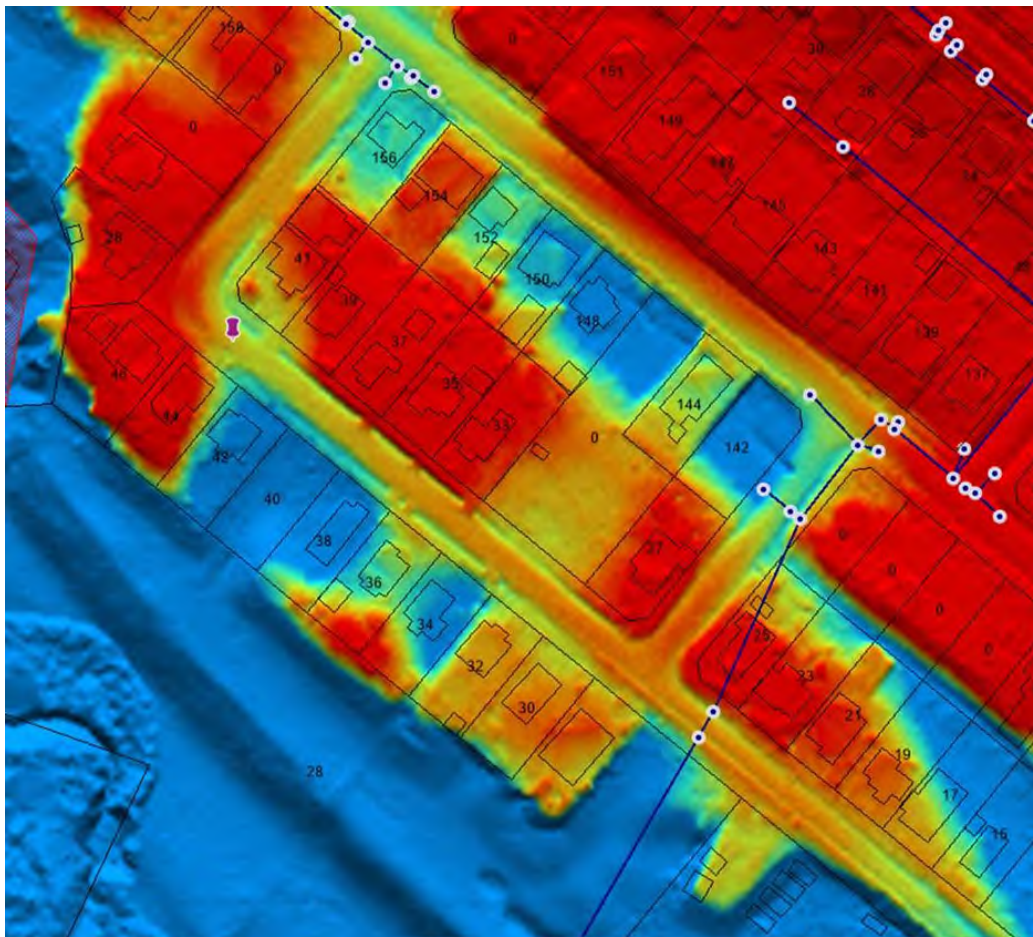
Attachments

Lidar Imagery

Proposed drainage works

Attachment 1 – Lidar Imagery





Attachment 2 - Proposed Drainage Works



**FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25**

WEDNESDAY, 27 AUGUST 2025

PETITION RESPONSE REPORT

**SUBJECT: RESPONSE TO THE REQUEST FOR COUNCIL ACTION
RELATING TO EXCESS WATER OVERFLOW FROM THE
DEVELOPMENT AT COLYTON STREET, TORQUAY**

DIRECTORATE: STRATEGY, COMMUNITY & DEVELOPMENT

RESPONSIBLE OFFICER: DIRECTOR STRATEGY, COMMUNITY & DEVELOPMENT

AUTHOR: MANAGER DEVELOPMENT ENGINEERING

1. BACKGROUND

At Council's Ordinary Meeting on Monday, 30 June 2025, Councillor John Weiland tabled a petition on behalf of chief petitioner, Angelo Oliaro regarding the excess water overflow from the development at Colyton Street, Torquay.

2. OFFICER'S RECOMMENDATION

That Council write to the Chief Petitioner advising that Council has reviewed the development and do not propose to take any further action on this matter.

3. RESPONSE

The project was originally approved under a Reconfigure a Lot Development Permit - RAL17/0006 on the 26 October 2017 and subsequent Operational works development permit - OPW22/0115 on the 25 May 2023. Civil works have been completed on-site in accordance with the operational works approval, and the subdivision is currently on-maintenance and is due for off-maintenance on the 20 February 2026.

The residential subdivision is currently managed by a Community Titles Scheme (CTS), which means property owners share common areas and facilities and are responsible for all onsite assets. All internal infrastructure (including the stormwater system) was designed by a recognised Engineering Consultancy Company and all plans signed by a Registered Professional Engineer of Queensland (RPEQ) and certified to be in accordance with the relevant standards as prescribed by Council policy. During construction, the Council Development Engineering section conducted regular site inspections ensuring that the project was carried out in accordance with the Council Planning Scheme, approved Development Permits and Australian Standards.

Regarding nearby property stormwater issues, there has been ongoing engagement between Council Development Engineering Officers, the developer, consultant and residents regarding nearby properties stormwater issues.

Development Locality Aerial Photograph



Suggested Solutions to be Carried Out by Existing Residents



Minor Ponding Water to be Controlled as Part of the On-Maintenance Current Status



Based on the evidence presented to affected residents, and explanation that localised drainage issues are not related to the approved one (1) lot into 14 lots subdivision (OPW22/0115 Colyton Street Development), there are no specific mitigation actions required by the developer to control this drainage matter beyond what has already been approved and constructed.

However, during the inspections, some specific issues and solutions on existing dwellings (different to the subdivision area) were identified and discussed with individual owners. These works will be privately conducted by the residents.

Based on investigations, technical reports, Registered Professional Engineer Queensland (RPEQ) Plans and site inspections, it has been determined that the approved subdivision is not negatively contributing to the existing overflow issues. However, the subdivision site will be monitored during the 12-month maintenance period to ensure flows are collected into the existing detention system and delivered to the Council stormwater network in Allison Drive. In conclusion, no further action is required from Council or the developer.

4. ATTACHMENTS

Nil

**FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25**

WEDNESDAY, 27 AUGUST 2025

SUBJECT: INFORMAL MEETINGS - RECORD OF MATTERS DISCUSSED

DIRECTORATE: OFFICE OF THE CEO

RESPONSIBLE OFFICER: CHIEF EXECUTIVE OFFICER

AUTHOR: EXECUTIVE ASSISTANT - COUNCILLORS

1. PURPOSE

The purpose of this report is to present Council with the record of matters discussed for Council Informal Meetings held 1 July 2025 to 31 July 2025.

2. EXECUTIVE SUMMARY

That Council note the following record of matters discussed for the following Informal Meetings:

1. Council Concept Forum held on 2 July 2025 - (Docs#5236165)
2. Councillor and Executive Briefing held on 7 July 2025 - (Docs#5238160)
3. Councillor and Executive Briefing held on 14 July 2025 - (Docs#5242462)
4. Council Agenda Forum held on 16 July 2025 - (Docs#5257343)
5. Councillor and Executive Briefing held on 21 July 2025 - (Docs#5246970)
6. Councillor and Executive Briefing held on 28 July 2025 - (Docs#5251457)

3. RECOMMENDATION

That Council receive and note the record of matters discussed of Council Informal Meetings held between 1 July 2025 to 31 July 2025 as detailed in the attachments.

4. ATTACHMENTS

1. Record of Matters Discussed - Council Concept Forum held on 2 July 2025 (Docs#5236165) [↓](#)
2. Record of Matters Discussed - Councillor and Executive Briefing held on 7 July 2025 (Docs#5238160) [↓](#)
3. Record of Matters Discussed - Councillor and Executive Briefing held on 14 July 2025 (Docs#5242462) [↓](#)
4. Record of Matters Discussed - Agenda Forum held on 16 July 2025 (Docs#5257343) [↓](#)

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5. Record of Matters Discussed - Councillor and Executive Briefing held on 21 July 2025 (Docs#5246970) [↓](#)
 6. Record of Matters Discussed - Councillor and Executive Briefing held on 28 July 2025 (Docs#5251457) [↓](#)



**COUNCIL CONCEPT FORUM
RECORD OF MATTERS DISCUSSED**

Wednesday 2 July 2025

10am

Docs#5236165

Councillors	Mayor Seymour Deputy Mayor Faraj Cr Byrne Cr Phil Truscott Cr Paul Truscott Cr Sanderson Cr Weiland Cr Chapman Cr O'Keefe
CEO and Directors	Ken Diehm, Chief Executive Officer Paul Fendley, Acting Director Organisational Services Craig Hutton, Acting Director Infrastructure Services Mark Vanner, Director Water and Waste Services Justine Cooper, Director Strategy, Community and Development
Apologies	Cr Govers – Leave Cr Cosgrove – Leave Gerard Carlyon, Director Organisational Services Davendra Naidu, Director Infrastructure Services
Attendance:	John McLennan – Executive Manager Infrastructure Engineering Damion Beety – Principal Engineer Roads Ian Swift – Project Officer Roads Steve Gatt – Executive Manager Regulatory Services

BUSINESS ITEMS

1. Conflicts of Interest

Nil

2. List of Topics Discussed

- SafePark – Parking Infringements

3. Further Information Sought or Provided

Nil

MEETING CLOSED 12.10pm



**COUNCILLOR AND EXECUTIVE BRIEFING
RECORD OF MATTERS DISCUSSED**

Monday 7 July 2025

10am

Docs#5238160

Councillors	Deputy Mayor Faraj Cr Byrne Cr Phil Truscott Cr Paul Truscott Cr Sanderson Cr Govers Cr Cosgrove Cr Weiland Cr Chapman Cr O'Keefe
CEO and Directors	Ken Diehm, Chief Executive Officer Paul Fendley, Acting Director Organisational Services Craig Hutton, Acting Director Infrastructure Services Umur Natus-Yildiz, Acting Director Water and Waste Services Justine Cooper, Director Strategy, Community and Development
Apologies	Mayor Seymour - Leave Gerard Carlyon, Director Organisational Services Davendra Naidu, Director Infrastructure Services
Attendance:	Damion Beety – Principal Engineer Roads Rosalyn Acworth – Executive Manager Strategy & Sustainability Ashleigh McMillan - Senior Strategic Planner Hannes Bezuidenhout – Manager Strategic Infrastructure Planning Steve Twohill – Senior Engineer - Stormwater Sydney Shang – Executive Manager Corporate Services Leah McCormack – Manager Governance Jarrod Delahunty – Manager Economic Development Debra Howe – Acting Executive Manager Economic Development & Tourism Jamie Cockburn – Executive Manager Development

BUSINESS ITEMS

1. Conflicts of Interest

Nil

2. List of Topics Discussed

Item 1 – Record of Matters Discussed 23 June 2025

Item 2 – Outstanding Action list

Item 3 – Fraser Coast Integrated Transport Strategy (FITS)

Item 4 – Tooan Tooan Risk Management Study

Cr Paul Truscott retired from the meeting at 11.30am

Item 5 – Local Heritage Register

Adjourned for lunch at 12noon
Meeting recommenced at 12.45pm

Item 6 – CEO Performance Review Committee – Terms of Reference Council Policy

Item 7 – TreeClimb Proposal

Item 8 – Category A Projects

Item 9 – Development Application – Telecommunication Facility

Item 10 - General Business

General Business 1 – Reef Guardian Council

General Business 2 – State Library Funding Methodology Review

Item 11 - Distributed Briefing Notes

Item 12 – Media update

Item 13 - Concept Forum topics and Projects of Interest

Item 14 – Meeting Review

3. Further Information Sought or Provided

Item 10 – Development Application – Telecommunication Facility – The Acting Director Organisational Services to provide Councillors with indicative revenue received from Council telecommunication leases.

Item 10 - Development Application – Telecommunication Facility – The Director Strategy, Community and Development to provide household demographics (if known) for submissions received for the proposed Telecommunication Facility lease.

Item 10 - Development Application – Telecommunication Facility – The Director Strategy, Community and Development to provide Councillors information in relation the science-based considerations for telecommunication facilities

Item 13 - Concept Forum topics and Projects of Interest – The Director Infrastructure Services to list the Fraser Coast Sports and Recreation Precinct future development and timelines on a future Councillor and Executive Briefing session.

MEETING CLOSED 1.28pm



**COUNCILLOR AND EXECUTIVE BRIEFING
RECORD OF MATTERS DISCUSSED**

Monday 14 July 2025

10am

Docs#5242462

Councillors	Mayor Seymour Deputy Mayor Faraj Cr Phil Truscott Cr Paul Truscott Cr Sanderson Cr Govers Cr Weiland Cr Chapman Cr O'Keefe
CEO and Directors	Paul Fendley, Acting Director Organisational Services Davendra Naidu, Director Infrastructure Services Umur Natus-Yildiz, Acting Director Water and Waste Services Justine Cooper, Director Strategy, Community and Development
Apologies	Cr Byrne Cr Cosgrove Ken Diehm, Chief Executive Officer Gerard Carlyon, Director Organisational Services
Attendance:	Nicole Prentice – Consultant Sydney Shang – Executive Manager Corporate Services Leah McCormack – Manager Governance MJ Wruck - Leasing Officer Karen Connor – Leasing Officer Max Corte – Executive Manager Open Space and Environment

BUSINESS ITEMS

1. Conflicts of Interest

Cr Sanderson raised a declarable Conflict of Interest and stated: "I don't believe it's a conflict - just raising so Council is aware that my brother plays for Sunbury Soccer club who is looking for a lease which we are discussing" and remained in the meeting during discussion.

2. List of Topics Discussed

Item 1 – Record of Matters Discussed 7 June 2025

Item 2 – Outstanding Action list

Item 3 – Land and Leasing Matters

Lunch Break commenced at 12.05pm

Session recommenced at 12.35pm

Item 4 – Land and Leasing Matters Continued

Mayor Seymour retired from the meeting at 1pm

Item 5 - General Business

Item 6 - Distributed Briefing Notes

Item 7 – Media update

Item 8 - Concept Forum topics and Projects of Interest

Item 9 – Meeting Review

3. Further Information Sought or Provided

Nil

MEETING CLOSED 2.05pm



**RECORD OF MATTERS DISCUSSED OF THE COUNCIL AGENDA FORUM MEETING NO. 7/25
HELD IN THE FRASER COAST REGIONAL COUNCIL CHAMBERS, HERVEY BAY COUNCIL CHAMBERS,
TAVISTOCK STREET, HERVEY BAY
ON WEDNESDAY, 16 JULY 2025 COMMENCING AT 10:00 AM**

PRESENT:

- Councillor George Seymour
- Councillor Michelle Byrne
- Councillor Phil Truscott
- Councillor Paul Truscott
- Councillor Daniel Sanderson
- Councillor Michelle Govers
- Councillor John Weiland
- Councillor Denis Chapman
- Councillor Sara Faraj (Chairperson)
- Councillor Zane O'Keefe

STAFF IN ATTENDANCE:

- Chief Executive Officer, Mr Ken Diehm
- (Acting) Director Organisational Services, Mr Gerard Carlyon
- (Acting) Director Strategy, Community & Development, Justine Cooper
- (Acting) Director Water & Waste Services, Mr Umur Natus-Yildiz
- Director Infrastructure Services, Mr Davendra Naidu
- Meeting Secretary, Ms Bianca Wilson

CAF 1 APOLOGIES

The Council noted the apology for Councillor Lachlan Cosgrove.

CAF 2 DISCLOSURE OF INTERESTS

Nil

CAF 3 ORDINARY MEETING AGENDA

The following discussion and questions occurred:

ORD 4 **MAYORAL MINUTES**
Nil

ORD 5 **CONFIRMATION OF MINUTES OF MEETINGS**

Councillors received and considered the minutes of the Ordinary Council Meeting No.6/25 - 30 June 2025 be confirmed.

Mayor George Seymour joined the meeting at 10.01am.

ORD 6 **OUTSTANDING ACTIONS**

ORD 6.1 **Open Resolutions Register - July 2025**

Councillors received and considered the report titled Open Resolutions Register - July 2025 dated 23 July 2025.

ORD 7 **ADDRESSES/PRESENTATIONS**

ORD 7.1 **Community Presentations**

Nil

ORD 8 **DEPUTATIONS**

Nil

ORD 9 **PETITIONS**

ORD 9.1 **Receipt of Petitions**

Nil

ORD 10 **COMMITTEES' REPORTS**

ORD 10.1 **Informal Meetings - Record of Matters Discussed**

Councillors received and considered the report titled Informal Meetings - Record of Matters Discussed dated 23 July 2025.

ORD 10.2 Water and Waste Services Advisory Committee Meeting Minutes - 20 June 2025

Councillors received and considered the report titled Water and Waste Services Advisory Committee Meeting Minutes - 20 June 2025 dated 23 July 2025

ORD 11 OFFICERS' REPORTS

ORD 11.1.1 Councillor Meeting Attendance for August 2025

Councillors received and considered the report titled Councillor Meeting Attendance for August 2025 dated 23 July 2025.

ORD 11.2.1 2024/25 Operational Plan Progress Report - April to June 2025

Councillors received and considered the report titled 2024/25 Operational Plan Progress Report - April to June 2025 dated 23 July 2025.

ORD 11.2.2 Request for Ergon Easement - Disposal of Interest in Land - Urraween Reservoir Site

Councillors received and considered the report titled Request for Ergon Easement - Disposal of Interest in Land - Urraween Reservoir Site dated 23 July 2025.

ORD 11.2.3 LGAQ Conference - Motions

Councillors received and considered the report titled LGAQ Conference - Motions dated 23 July 2025.

ORD 11.2.4 Procurement Policy Review

Councillors received and considered the report titled Procurement Policy Review dated 23 July 2025.

ORD 11.2.5 Request for New Leases - Mcfie Park Sporting Fields

Councillors received and considered the report titled Request for New Leases - Mcfie Park Sporting Fields dated 23 July 2025.

ORD 11.3.1 Reef Guardian Council Councillor Nominations

Councillors received and considered the report titled Reef Guardian Council Councillor Nominations dated 23 July 2025.

ORD 11.4.1 Bushfire Risk Mitigation Strategy

Councillors received and considered the report titled Bushfire Risk Mitigation Strategy dated 23 July 2025.

ORD 12 MATTERS/MOTIONS OF WHICH DUE NOTICE HAS BEEN GIVEN

ORD 12.1 Condolence Motion - Leith Bouly

Councillors received and considered the report titled Condolence Motion - Leith Bouly dated 23 July 2025.

ORD 12.2 Water and Waste Infrastructure Connections

Councillors received and considered the report titled Water and Waste Infrastructure Connections dated 23 July 2025.

ORD 13 QUESTIONS ON NOTICE

Nil

ORD 14 GENERAL BUSINESS

Nil

ORD 15 CONFIDENTIAL

RESOLUTION (Denis Chapman/Michelle Byrne)

That Council move into Closed Session to discuss the following confidential agenda item

1. ORD 15.1 - Strategic Land Purchase - Hervey Bay Recycled Water Expansion

Carried Unanimously

ORD 15.1 Strategic Land Purchase - Hervey Bay Recycled Water Expansion

Councillors received and considered the report titled Strategic Land Purchase - Hervey Bay Recycled Water Expansion dated 23 July 2025 and note the following request for further information:

Councillor Denis Chapman requested further information regarding the presence of rat's tail grass on the property and Council's duty of care.

RESUMPTION OF OPEN MEETING

RESOLUTION (Denis Chapman/Michelle Byrne)

That the meeting resume in open meeting.

Carried Unanimously

There being no further business, the Meeting closed at 10.21am.

Confirmed at Ordinary Meeting No. 8/25 of the Fraser Coast Regional Council at Maryborough on
27 August 2025



COUNCILLOR AND EXECUTIVE BRIEFING
RECORD OF MATTERS DISCUSSED

Monday 21 July 2025

10.05am

 Docs#5246970

Councillors	Mayor Seymour Deputy Mayor Faraj Cr Byrne Cr Phil Truscott Cr Paul Truscott Cr Sanderson Cr Govers Cr Cosgrove Cr Weiland Cr Chapman Cr O'Keefe
CEO and Directors	Ken Diehm, Chief Executive Officer Gerard Carlyon , Director Organisational Services Davendra Naidu, Director Infrastructure Services Umur Natus-Yildiz, Acting Director Water and Waste Services Justine Cooper, Director Strategy, Community and Development
Apologies	
Attendance:	James Birrell – Consultant Sydney Shang – Executive Manager Corporate Services Leah McCormack – Manager Governance Donna Wilson - Corporate Operations Coordinator Max Corte – Executive Manager Open Space and Environment Tracey Genrich – Manager Community Development & Engagement Scott Whitby - Manager Marketing & Communications Steve Gatt – Executive Manager Regulatory Services Blake Hender – Service Stream - Town Planner Lynette Brandwood – Service Stream - National Planning and Community Relations Manager Matt Thornton – Telstra - Regional Engagement Manager South East QLD Talha Khan – Telstra - Design Engineer Subject Matter Expert Jamie Cockburn – Executive Manager Development Rhianne McMullen-Legdin - Planner

BUSINESS ITEMS
1. Conflicts of Interest

Cr Sara Faraj left the meeting during discussion of Item - Torquay Caravan Park options project, due to a previously raised Prescribed Conflict of Interest in relation to Caravan Parks.

2. List of Topics Discussed

Mayor Seymour retired from the meeting at 10.05am

Item 1 – Record of Matters Discussed 14 July 2025

Item 2 – Outstanding Action list

Cr Faraj left the meeting at 10.10am

Item 3 – Torquay Caravan Park options project

Lunch Break commenced at 11.50am

Session recommenced at 12.30pm

Cr Paul Truscott retired from the meeting at 11.50am

Cr Faraj rejoined the meeting at 12.30pm

Item 4 – Hotel Accommodation in Maryborough CBD

Item 5 - Telecommunication Facility

Item 6 - General Business

General Business 1 – Legal Matters Updates

Item 7 - Distributed Briefing Notes

Item 8 – Media update

Item 8 - Concept Forum topics and Projects of Interest

Item 9 – Meeting Review

3. Further Information Sought or Provided

MEETING CLOSED 1.40pm



**COUNCILLOR AND EXECUTIVE BRIEFING
RECORD OF MATTERS DISCUSSED**

Monday 28 July 2025

10.15am

Docs#5251457

Councillors	Mayor Seymour Deputy Mayor Faraj Cr Byrne Cr Phil Truscott Cr Paul Truscott Cr Govers Cr Cosgrove Cr Chapman Cr O'Keefe
CEO and Directors	Ken Diehm, Chief Executive Officer Gerard Carlyon , Director Organisational Services Davendra Naidu, Director Infrastructure Services Umur Natus-Yildiz, Acting Director Water and Waste Services Justine Cooper, Director Strategy, Community and Development
Apologies	Cr Sanderson – Leave Cr Weiland - Leave
Attendance:	Brendan Guy – Manager Disaster Planning Adelaide Schuler – Principal Program Officer – Office of the Inspector General Emergency Management (IGEM)

BUSINESS ITEMS

1. Conflicts of Interest

Nil

2. List of Topics Discussed

Item 1 – Record of Matters Discussed 21 July 2025

Item 2 – Outstanding Action list

Item 3 – Blackspot Program Nominations

Item 4 – Category A Projects

Item 5 - IGEM 2025 Disaster Events Reviews – Fraser Coast

Item 6 - General Business

General Business 1 – Briefing Note – Maryborough Town Hall Green – Removal of Declining Ficus Tree

General Business 2 – Rating Categories

Item 7 - Distributed Briefing Notes

Item 8 – Media update

Item 9 - Concept Forum topics and Projects of Interest

Item 10 – Meeting Review

3. Further Information Sought or Provided

General Business 2 – Rating Categories – The Director Organisational Services to provide Councillors with the Change of Property Ownership letter template.

Item 9 - Concept Forum topics and Projects of Interest – The Director Infrastructure Services to provide an indicative date for discussion with Councillors at a Councillor and Executive Briefing Session in relation to proposed Ibis Boulevard connection road.

MEETING CLOSED 12.04pm

FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25

WEDNESDAY, 27 AUGUST 2025

SUBJECT: MINUTES FROM THE ARTS CULTURE & HERITAGE
ADVISORY COMMITTEE MEETING 22 JULY 2025

DIRECTORATE: STRATEGY, COMMUNITY & DEVELOPMENT

RESPONSIBLE OFFICER: DIRECTOR STRATEGY, COMMUNITY & DEVELOPMENT

AUTHOR: EXECUTIVE MANAGER - COMMUNITY & CULTURE

1. PURPOSE

The purpose of this report is to present Council with the Minutes of the Arts Culture & Heritage Advisory Committee meeting held on 22 July 2025.

2. EXECUTIVE SUMMARY

The Arts, Culture and Heritage Advisory Committee meets quarterly and provides advice or recommendations to Council on art, cultural and heritage matters.

Of note is the Committee's resolution to support the development of an Art Trail to be funded with the assistance of RADF (Regional Arts Development Fund).

3. OFFICER'S RECOMMENDATION

That Council receive and note the Minutes of the Arts, Culture and Heritage Advisory Committee held on 22 July 2025.

4. ATTACHMENTS

1. Arts Culture & Heritage Advisory Committee Meeting Minutes 22 July 2025 [↓](#)

ARTS, CULTURE AND HERITAGE ADVISORY COMMITTEE
4-6 PM, Tuesday 22nd of July 2025 GATKERS CREATIVE SPACE MARYBOROUGH

Minutes

ATTENDEES: Committee Members:

Cr Sara Faraj – Councillor
 Cr Michelle Govers – Councillor
 Mrs Nora Hanasy – community member
 Mr Shawn Wondunna-Foley – community member
 Mr John Andersen – community member
 Joyce Chorny – FCRC Executive Manager Community & Culture
 Ms Jill Byrnes – community member

Invited Guests:

Lisa Stephenson – FCRC Manager Cultural Services
 Tara Webb – FCRC Regional Librarian
 Amanda Kratzmann - Regional Arts Development Coordinator
 April Spadina - Engagement Coordinator HBRG
 Tracey Genrich – FCRC Manager Community Development & Engagement
 James O’Connor – FCRC Senior Community Development & Engagement
 Coordinator
 Jodie Clough – FCRC Business Support (Minutes)

APOLOGIES: Angela Isnor – FCRC Senior Museums Coordinator
 Mr Robert Mackay – community member
 Sarah Thomson – Hervey Bay Regional Gallery Director
 Mrs Tegan Symes – community member

ITEM	Business	
1	Welcome & Apologies Welcome and apologies provided.	SF
2	Including Diversity in Programs and Activities MG proposed a 12-month review of diversity efforts involving community groups. FCRC and JOC highlighted current programs supporting multiculturalism, disability, and Indigenous initiatives, with TW and AS emphasising inclusive spaces and events like the Torres Strait Islander exhibition. NH and SF suggested boosting community storytelling and promotional efforts, while ideas to improve communication to Councillors were also discussed.	TG, JOC, MG
3	Art Trail AK presented the proposed Fraser Coast Art Trail, aligned with Council’s Arts & Culture Strategy and supported by RADF. Multi-day event with music, studios,	AK

[DOCS #5247853](#)

	<p>heritage tours, and inclusion of commercial galleries, emphasising accessibility and digital mapping. RADF-funded coordinator to create an Artist Directory.</p> <p>Recommendation: Committee to support development of an Art Trail and Open Studio event on the Fraser Coast.</p>	
4	<p>Meeting times in relation to business hours</p> <p>SF reiterated Council decision: meetings to be held in Council business hours.</p> <p>JCH – suggested meeting at 3pm instead of 4pm or to change to one hour only.</p> <p>Resolution: Committee resolved to change future meetings to start at 3pm and finish before 5pm.</p>	JCH, SF
5	<p>General Business</p> <p>JCH shared information on upcoming visits from Leshan delegates (China) and Kasukabe students (Japan).</p> <p>SF reported on the HBNC wall project- <i>Where You Belong</i>. EOI managed via The Hive; wall to receive anti-graffiti coating.</p>	JCH, SF
6	<p>Next meeting and Close</p> <p>Meeting closed 5:18pm.</p> <p>Next meeting Tuesday September 23rd, 2025.</p>	SF

**FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25**

WEDNESDAY, 27 AUGUST 2025

SUBJECT:	COUNCILLOR MEETING ATTENDANCE FOR SEPTEMBER 2025
DIRECTORATE:	OFFICE OF THE CEO
RESPONSIBLE OFFICER:	CHIEF EXECUTIVE OFFICER
AUTHOR:	EXECUTIVE ASSISTANT - COUNCILLORS
LINK TO CORPORATE PLAN:	Focused Organisation and Leadership. Demonstrate good leadership, and effective and ethical decision-making to foster confidence within our community.

1. PURPOSE

The purpose of this report is to approve the relevant meetings as per the Councillor Code of Conduct and Councillor Attendance Policy.

2. EXECUTIVE SUMMARY

This report will outline Councillor's responsibility to meet the standards set out in the Code of Conduct for Councillors in Queensland by listing meetings, briefings, workshops, and training opportunities each month.

3. OFFICER'S RECOMMENDATION

That Council:

1. Approve the following meetings for the period 1 September 2025 to 30 September 2025 as relevant meetings which require the attendance and meaningful participation of all Councillors as per the Councillor Code of Conduct and Councillor Attendance Policy:

Date of Meeting	Time of Meeting	Meeting
1 September 2025	10.00am	Councillor and Executive Briefing
3 September 2025	9.00am	Council Concept Forum
8 September 2025	10.00am	Councillor and Executive Briefing
10 September 2025	9.00am	Council Concept Forum
15 September 2025	10.00am	Councillor and Executive Briefing
17 September 2025	10.00am	Council Agenda Forum
22 September 2025	10.00am	Councillor and Executive Briefing
24 September 2025	9.00am	Community Presentations
29 September 2025	10.00am	Councillor and Executive Briefing

2. Note the requirement to attend the Ordinary Meeting scheduled for 24 September 2025.

4. BACKGROUND & PREVIOUS COUNCIL CONSIDERATION

Council adopted the Councillor Attendance Policy on 28 August 2024 which sets out Council's expectation of a Councillor to carry out their responsibilities as described in the Code of Conduct for Councillors in Queensland relating to meetings, briefings, relevant workshops, and training opportunities.

The policy requires Council to approve at each Ordinary Meeting of Council a list of meetings that are considered to be relevant for Councillors to attend for the following month.

5. PROPOSAL

It is proposed that the following meetings are considered relevant for all Councillors to attend:

Date of Meeting	Time of Meeting	Meeting
1 September 2025	10.00am	Councillor and Executive Briefing
3 September 2025	9.00am	Council Concept Forum
8 September 2025	10.00am	Councillor and Executive Briefing
10 September 2025	9.00am	Council Concept Forum
15 September 2025	10.00am	Councillor and Executive Briefing
17 September 2025	10.00am	Council Agenda Forum
22 September 2025	10.00am	Councillor and Executive Briefing
24 September 2025	9.00am	Community Presentations
29 September 2025	10.00am	Councillor and Executive Briefing

6. FINANCIAL & RESOURCE IMPLICATIONS

N/A

7. POLICY & LEGAL IMPLICATIONS

Head of Power is the *Local Government Act 2009* and the Councillor Attendance Policy.

8. RISK IMPLICATIONS

N/A

9. CRITICAL DATES & IMPLEMENTATION

N/A

10. CONSULTATION

Consultation has taken place with relevant Directors and Councillors.

11. CONCLUSION

The report details the meetings for the following month that Councillors are expected to attend.

12. ATTACHMENTS

Nil

FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25

WEDNESDAY, 27 AUGUST 2025

SUBJECT:	THE 2025 LOCAL GOVERNMENT ASSOCIATION QUEENSLAND (LGAQ) ANNUAL CONFERENCE
DIRECTORATE:	OFFICE OF THE CEO
RESPONSIBLE OFFICER:	CHIEF EXECUTIVE OFFICER
AUTHOR:	EXECUTIVE ASSISTANT - COUNCILLORS
LINK TO CORPORATE PLAN:	Focused Organisation and Leadership. Demonstrate good leadership, and effective and ethical decision-making to foster confidence within our community.

1. PURPOSE

The purpose of this report is for Council to approve the attendance of two delegates at the LGAQ Annual Conference to be held at the Gold Coast Convention and Exhibition Centre on Monday 20 October 2025 to Wednesday 22 October 2025.

2. EXECUTIVE SUMMARY

The 2025 LGAQ Annual Conference and Annual General Meeting will be held on Monday 20 to Wednesday 22 October 2025 at the Gold Coast Convention and Exhibition Centre. Council is allocated two (2) delegates to attend at the Conference within its membership. Delegates are provided with voting entitlements to vote on motions as representatives of Fraser Coast Regional Council. Additional observers are able to attend. Registration is now open for delegates and observers.

3. OFFICER'S RECOMMENDATION

That Council:

1. Call for nominations from Councillors to attend the LGAQ Annual Conference as delegates.
 2. Appoints Mayor George Seymour and Councillor *<Insert name of Councillor>* as delegates on behalf of Council to attend the LGAQ Annual Conference to be held on the Gold Coast from 20 to 22 October 2025.
 3. Approves the attendance of all Councillors wishing to attend the LGAQ Annual Conference to be held on the Gold Coast from 20 – 22 October 2025, as observers as part of their professional development funds.
-

4. BACKGROUND & PREVIOUS COUNCIL CONSIDERATION

N/A

5. PROPOSAL

The LGAQ is seeking two delegates from Council for the upcoming annual conference to be held on the Gold Coast.

Council can have two delegates attend as part of its membership fees.

The Mayor has been appointed to the LGAQ Policy Executive and associated with this role, there is an expectation by the LGAQ that he attend and participate in the annual conference as a Council delegate.

It is recommended that Council approve the Mayor's attendance and one other Council delegate.

6. FINANCIAL & RESOURCE IMPLICATIONS

The attendance of two delegates is included in the LGAQ annual membership subscription. All other costs are provided as per the Expenses Reimbursement and Provision of Facilities for Mayor and Councillors Policy.

Councillors may also attend the conference as observers, with all costs being met from the Councillor's professional development budget. The registration costs for attendance as an observer are:

- Early Bird Registration – prior to and including 3 October 2025
 - Council Government observer - \$1,700
 - Five or more observers from one council - \$1,550

- Full Registration after 3 October 2025
 - Council observer - \$1,800
 - Five or more observers from one council - \$1,650

- Welcoming Ceremony (accompanying persons, day registrations and additional trade exhibitors) - \$85.00

- Gala Dinner – \$195.00

7. POLICY & LEGAL IMPLICATIONS

N/A

8. CRITICAL DATES & IMPLEMENTATION

Discounted registration fees are available prior to and including 3 October 2025.

9. CONSULTATION

N/A

10. CONCLUSION

The report seeks the appointment of two Councillors to attend at the LGAQ Annual Conference as delegates with voting entitlements. Observers are also able to attend.

11. ATTACHMENTS

Nil

**FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25**

WEDNESDAY, 27 AUGUST 2025

SUBJECT:	AMENDED POLICY - CHIEF EXECUTIVE OFFICER PERFORMANCE REVIEW COMMITTEE TERMS OF REFERENCE COUNCIL POLICY
DIRECTORATE:	ORGANISATIONAL SERVICES
RESPONSIBLE OFFICER:	DIRECTOR ORGANISATIONAL SERVICES
AUTHOR:	CORPORATE GOVERNANCE OFFICER
LINK TO CORPORATE PLAN:	Focused Organisation and Leadership. Demonstrate good leadership, and effective and ethical decision-making to foster confidence within our community.

1. PURPOSE

The purpose of this report is to adopt the amended Chief Executive Officer Performance Review Committee Terms of Reference Council Policy (the policy).

2. EXECUTIVE SUMMARY

This report is put forward to seek Council's endorsement and to reconfirm Council's ongoing commitment to the policy. The policy remains largely unchanged, with only two minor amendments.

3. OFFICER'S RECOMMENDATION

That Council adopt the Chief Executive Officer Performance Review Committee Terms of Reference Council Policy as per Attachment 1 (eDocs#4399722)

4. BACKGROUND & PREVIOUS COUNCIL CONSIDERATION

The policy was last adopted by Council at the Ordinary Meeting held on 20 October 2021.

5. PROPOSAL

The policy has recently been reviewed and remains largely unchanged, with only two minor amendments as outlined below:

Relevant Section	Change Proposed
5.3 – Membership	Addition of wording (if requested) to point d)
5.6.1 – Confidentiality	Change to add "(3)" to correctly reference the

Relevant Section	Change Proposed
	section of the legislation.

It is proposed that Council adopt the amended policy as presented in Attachment 1 (eDocs#4399722).

6. FINANCIAL & RESOURCE IMPLICATIONS

No financial or resource implications are identified

7. POLICY & LEGAL IMPLICATIONS

Local Government Act 2009

8. RISK IMPLICATIONS

No risk implications identified.

9. CRITICAL DATES & IMPLEMENTATION

No critical dates identified.

10. CONSULTATION


Consultation has occurred with Councillors and the Executive Leadership Team at a Councillor & Executive Briefing held on 7 July 2025.

11. CONCLUSION

It is recommended that Council adopt the Chief Executive Officer Performance Review Committee Terms of Reference Council Policy as presented in Attachment 1 (eDocs#4399722).

12. ATTACHMENTS

1. Chief Executive Officer Performance Review Committee Terms of Reference Council Policy - Clean Copy (eDocs#4399722) [↓](#)
2. Chief Executive Officer Performance Review Committee Terms of Reference Council Policy - Track Changes (eDocs#4399722) [↓](#)

	COUNCIL POLICY	
	Chief Executive Officer Performance Review Committee Terms of Reference	
	Policy Number	CP095
	Directorate	Organisational Services
	Owner	Governance
	Last Approved	20 October 2021
	Review Due	20 October 2023

1. PURPOSE

This Policy provides the Terms of Reference for the Chief Executive Officer Performance Review Committee.

2. SCOPE

This Policy only applies to the Chief Executive Officer Performance Review Committee.

3. HEAD OF POWER

Local Government Act 2009

4. DEFINITIONS

To assist in the interpretation of this Policy the following definitions apply:

“Chief Executive Officer” (CEO) means the Chief Executive Officer of a council and includes a person acting in the role.

5. POLICY STATEMENT

The following are the Terms of Reference for the Chief Executive Officer Performance Review Committee.

5.1. Establishment

5.1.1. Pursuant to Section 12(4)(d) of the Local Government Act 2009, Council established a Committee to be known as the Chief Executive Officer Performance Review Committee ('Committee').

5.1.2. Committee may be wound up at anytime by resolution of Council.

5.2. Objectives

5.2.1. Committee is established to fulfil the following functions:

- a) In conjunction with the CEO, establish relevant performance objectives and priorities for the coming year that will be used to assess the CEO's future performance and to meet performance expectations of Council.
- b) Meet as required between annual performance reviews to provide feedback and guidance to the CEO in relation to his performance.
- c) Undertake an annual assessment of the CEO's performance in accordance with the provisions of the CEO's Contract of Employment.
- d) Provide guidance and recommendations to Council in assessing the CEO's performance and remuneration.

5.3. Membership

5.3.1. The Committee will comprise:

- a) Mayor,
- b) Deputy Mayor,
- c) Two (2) Councillors endorsed by Council resolution
- d) One (1) Councillor nominated by the CEO (if requested)

5.3.2. Membership of the Committee is for the current term of the Council unless a member resigns or is replaced by a Council resolution.

5.3.3. The Mayor will be the Chair of the Committee. In the absence of the Mayor, the Deputy Mayor will act as the Chair.

5.4. Operational Matters

5.4.1. Council has delegated the following to the Committee:

- a) Develop and approve the Committee's work plan to ensure Council's obligations as per the CEO's Contract of Employment are met.
- b) Develop the CEO's Annual Performance Agreement as outlined in the Performance Review section of the CEO's Contract of Employment.
- c) Review the CEO's annual performance with the agreed CEO's Performance Agreement.
- d) Provide feedback and guidance to the CEO in relation to his performance.
- e) Review and provide advice to Council on setting the remuneration of the CEO.

- f) When necessary, engage an independent facilitator to assist with the review process subject to approved budget.
- 5.4.2. Council has delegated no other powers to the Committee. All other decisions of the Committee are to be framed as recommendations to Council.
- 5.4.3. Committee shall meet a least half yearly and, on such dates, and at such times as the Committee determines.
- 5.4.4. Special meetings of the Committee may be called by the Mayor with a minimum of one (1) day clear notice.
- 5.4.5. A quorum of the Committee is more than 50 percent of the members.
- 5.4.6. The agenda and reports for meetings of the Committee must be available to members at least 5 clear days before the meeting.
- 5.4.7. As per the CEO's Contract of Employment the Committee will provide to the CEO:
- a) At least fourteen (14) days' notice in writing that a half yearly performance review is to be conducted, including a broad outline of the subject matters to be covered.
 - b) At least fourteen (14) days' notice in writing that an annual performance review is to be conducted.
 - c) At least fourteen (14) days' notice in writing that an impromptu performance review is to be conducted.

5.5. Minutes

- 5.5.1. Minutes shall be kept of all meetings of the Committee.
- 5.5.2. Minutes shall be confirmed at the next regular meeting of the Committee.

5.6. Confidentiality

- 5.6.1. In accordance with Section 254J(3)(a) or (f) of the Local Governance Regulation 2012, Council will consider minutes, reports and all other correspondence arising from the CEO's performance in a meeting closed to the public.

6. ASSOCIATED DOCUMENTS


N/A

7. REVIEW

This Policy will be reviewed when related legislation/documents are amended or replaced, other circumstances as determined from time to time by Council or at intervals of no more than two (2) years.

Version Control

Version Number	Key Changes	Approval Authority	Approval Date	Document Number
1	New Policy	Council	20/10/2021	#4399722
2				

	COUNCIL POLICY	
	Chief Executive Officer Performance Review Committee Terms of Reference	
	Policy Number	CP095
	Directorate	Organisational Services
	Owner	Governance
	Last Approved	20 October 2021
	Review Due	20 October 2023

1. PURPOSE

This Policy provides the Terms of Reference for the Chief Executive Officer Performance Review Committee.

2. SCOPE

This Policy only applies to the Chief Executive Officer Performance Review Committee.

3. HEAD OF POWER

Local Government Act 2009

4. DEFINITIONS

To assist in the interpretation of this Policy the following definitions apply:

“Chief Executive Officer” (CEO) means the Chief Executive Officer of a council and includes a person acting in the role.

5. POLICY STATEMENT

The following are the Terms of Reference for the Chief Executive Officer Performance Review Committee.

5.1. Establishment

5.1.1. Pursuant to Section 12(4)(d) of the Local Government Act 2009, Council established a Committee to be known as the Chief Executive Officer Performance Review Committee ('Committee').

5.1.2. Committee may be wound up at anytime by resolution of Council.

5.2. Objectives

5.2.1. Committee is established to fulfil the following functions:

- a) In conjunction with the CEO, establish relevant performance objectives and priorities for the coming year that will be used to assess the CEO's future performance and to meet performance expectations of Council.
- b) Meet as required between annual performance reviews to provide feedback and guidance to the CEO in relation to his performance.
- c) Undertake an annual assessment of the CEO's performance in accordance with the provisions of the CEO's Contract of Employment.
- d) Provide guidance and recommendations to Council in assessing the CEO's performance and remuneration.

5.3. Membership

5.3.1. The Committee will comprise:

- a) Mayor,
- b) Deputy Mayor,
- c) Two (2) Councillors endorsed by Council resolution
- d) One (1) Councillor nominated by the CEO (if requested)

5.3.2. Membership of the Committee is for the current term of the Council unless a member resigns or is replaced by a Council resolution.

5.3.3. The Mayor will be the Chair of the Committee. In the absence of the Mayor, the Deputy Mayor will act as the Chair.

5.4. Operational Matters

5.4.1. Council has delegated the following to the Committee:

- a) Develop and approve the Committee's work plan to ensure Council's obligations as per the CEO's Contract of Employment are met.
- b) Develop the CEO's Annual Performance Agreement as outlined in the Performance Review section of the CEO's Contract of Employment.
- c) Review the CEO's annual performance with the agreed CEO's Performance Agreement.
- d) Provide feedback and guidance to the CEO in relation to his performance.
- e) Review and provide advice to Council on setting the remuneration of the CEO.

- f) When necessary, engage an independent facilitator to assist with the review process subject to approved budget.
- 5.4.2. Council has delegated no other powers to the Committee. All other decisions of the Committee are to be framed as recommendations to Council.
 - 5.4.3. Committee shall meet a least half yearly and, on such dates, and at such times as the Committee determines.
 - 5.4.4. Special meetings of the Committee may be called by the Mayor with a minimum of one (1) day clear notice.
 - 5.4.5. A quorum of the Committee is more than 50 percent of the members.
 - 5.4.6. The agenda and reports for meetings of the Committee must be available to members at least 5 clear days before the meeting.
 - 5.4.7. As per the CEO's Contract of Employment the Committee will provide to the CEO:
 - a) At least fourteen (14) days' notice in writing that a half yearly performance review is to be conducted, including a broad outline of the subject matters to be covered.
 - b) At least fourteen (14) days' notice in writing that an annual performance review is to be conducted.
 - c) At least fourteen (14) days' notice in writing that an impromptu performance review is to be conducted.

5.5. Minutes

- 5.5.1. Minutes shall be kept of all meetings of the Committee.
- 5.5.2. Minutes shall be confirmed at the next regular meeting of the Committee.

5.6. Confidentiality

- 5.6.1. In accordance with Section 254J(3)(a) or (f) of the Local Governance Regulations 2012, Council will consider minutes, reports and all other correspondence arising from the CEO's performance in a meeting closed to the public.

6. ASSOCIATED DOCUMENTS

N/A

7. REVIEW

This Policy will be reviewed when related legislation/documents are amended or replaced, other circumstances as determined from time to time by Council or at intervals of no more than two (2) years.

Version Control

Version Number	Key Changes	Approval Authority	Approval Date	Document Number
1	New Policy	Council	20/10/2021	#4399722
2				

FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25

WEDNESDAY, 27 AUGUST 2025

SUBJECT:	REQUEST FOR NEW LEASES - HERVEY BAY AIRPORT
DIRECTORATE:	ORGANISATIONAL SERVICES
RESPONSIBLE OFFICER:	DIRECTOR ORGANISATIONAL SERVICES
AUTHOR:	LEASING OFFICER
LINK TO CORPORATE PLAN:	Focused Organisation and Leadership. Demonstrate good leadership, and effective and ethical decision-making to foster confidence within our community.

1. PURPOSE

The purpose of this report is to seek Council's approval to enter into new leases with World Fuel Services (Australia) Pty Ltd over part of the Hervey Bay Airport land described as Lot 119 on SP314479.

2. EXECUTIVE SUMMARY

This report seeks Council's approval to enter into new lease agreements with World Fuel Services (Australia) Pty Ltd (WFS). WFS has held a lease with Council over the fuel storage facility for at least the last 7 years, after having assumed the lease through assignment from Mobil Oil Australia. A new lease is also required to formalise tenure over the fuel bowser and dispensing facility located airside which historically has not had formal tenure, as shown outlined in yellow in *Attachment 1*.

Formalising these leases will ensure the continued operation of an aviation fuel storage and dispensing facility, which is essential to supporting airline operations at the Fraser Coast Airport.

3. OFFICER'S RECOMMENDATION

That Council:

1. Resolves to dispose of an interest in land for airport related purposes other than by tender or auction, in accordance with section 236(1)(c)(vii) of the *Local Government Regulation 2012*, as it is in the public interest to enter into a lease with World Fuel Services (Australia) Pty Ltd at the Hervey Bay Airport.
2. Delegates authority to the Chief Executive Officer or their delegate, to determine the terms and conditions satisfactory to Council, and otherwise negotiate and execute a lease for a term of ten (10) years with World Fuel Services (Australia) Pty Ltd over part of Lot 119 on SP314479, located at Hervey Bay Airport.

4. BACKGROUND & PREVIOUS COUNCIL CONSIDERATION

The aviation fuel storage and dispensing facilities at Fraser Coast Airport are essential infrastructure that enable the refuelling of aircraft, supporting both commercial and general aviation activities. The storage facility is currently leased to World Fuel Services (Australia) Pty Ltd, who took over the lease from Mobil Oil Australia through assignment in 2017.

The airside fuel bowser and dispensing facility has historically been used under informal arrangements, and a new lease is now required to establish formal tenure over this component.

5. PROPOSAL

It is proposed that Council enter into two new leases with World Fuel Services (Australia) Pty Ltd:

1. A lease for the continued operation of the aviation fuel storage facility.
2. A lease for the fuel bowser and dispensing facility located airside

The lease terms will be subject to the standard conditions, including compliance with aviation safety, environmental, and operational regulations. Entering into these agreements will ensure clear tenure arrangements and ongoing provision of aviation fuel services at the Airport.

6. FINANCIAL & RESOURCE IMPLICATIONS

All costs associated with the lease preparation, legal, surveying and lodgement of the leases on title are to be borne by the tenant.

A new valuation will be obtained which will be used to determine the market rent.

7. POLICY & LEGAL IMPLICATIONS

Local Government Regulation 2012, Chapter 6, Part 3, Division 4 s236 (1) (c) (vii) allows Council to enter into leases for airport related purposes without calling for tenders or auctions, provided that it is in the public interest, that this is undertaken in accordance with sound contracting principles and market rent is applied.

8. RISK IMPLICATIONS

Operational Risk: Failure to secure appropriate tenure may impact the delivery of aviation fuel services, potentially disrupting airport operations and affecting airlines and other aviation users.

Legal and Compliance Risk: Establishing formal leases reduces Council's exposure to legal or compliance issues that may arise from informal occupation or unclear responsibilities.

Strategic Risk: Supporting aviation fuel infrastructure aligns with Council's strategic objective to maintain and enhance airport services and regional connectivity.

9. CRITICAL DATES & IMPLEMENTATION

The lease should be formalised as a priority to ensure appropriate tenure arrangements are in place for the ongoing and compliant use of the leased facility.

10. CONSULTATION

Consultation has occurred with the tenant and the Airport Manager, John Barnden, and no objection to the new leases is raised.

11. CONCLUSION

The request for new leases is supported by Council officers and the new leases will ensure the continued supply of aviation fuel services to support airlines and other aviation users at the Hervey Bay airport.

12. ATTACHMENTS

1. [Locality Map](#) 

ATTACHMENT 1
LOCALITY MAP

HERVEY BAY AIRPORT



FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25

WEDNESDAY, 27 AUGUST 2025

SUBJECT:	REQUEST FOR NEW LEASES - MARYBOROUGH AIRPORT COMMUNITY LAND
DIRECTORATE:	ORGANISATIONAL SERVICES
RESPONSIBLE OFFICER:	DIRECTOR ORGANISATIONAL SERVICES
AUTHOR:	EXECUTIVE MANAGER CORPORATE SERVICES
LINK TO CORPORATE PLAN:	Focused Organisation and Leadership. Demonstrate good leadership, and effective and ethical decision-making to foster confidence within our community.

1. PURPOSE

This report seeks Council approval to enter into new leases with community groups over Council-owned land located at the Maryborough Airport, without undertaking a tender or auction, under Section 236(1)(b)(ii) of the *Local Government Regulation 2012* (the 'Regulation').

2. EXECUTIVE SUMMARY

This report seeks Council's resolution to approve an exception under Section 236 of the Regulation, allowing the disposal of a valuable non-current asset other than by tender or auction, through the granting of a lease to community organisations.

Council has undertaken an expression of interest process to identify community groups suitable to co-locate on Council-owned land at the Maryborough Airport (the 'Land'). The intent is to maximise use of the site by supporting long-term, coordinated leases for multiple groups. An architect was engaged to develop a site layout plan to ensure appropriate use of space across the proposed lease areas.

This report recommends that Council offer leases to four community organisations enabling the groups to progress their proposals while ensuring Council retains appropriate oversight. The groups will have up to four years to meet all necessary planning and approval requirements prior to formalising a lease.

3. OFFICER'S RECOMMENDATION

That Council:

1. Resolves to dispose of an interest in land to the community organisations listed below, over part of the land located at Maryborough Airport, Maryborough, described as Lot 1 on SP268957, other than by tender or auction, in accordance with section 236(1)(b)(ii) of the *Local Government Regulation 2012*:

- a. Rotary Club of Maryborough City Inc
 - b. Rotary Club of Maryborough Sunrise Inc
 - c. Older Men Unlimited Inc
 - d. Maryborough Women Shed Inc
2. Delegates authority to the Chief Executive Officer, or their delegate, to negotiate, finalise, and execute the leases outlined in this report, on terms and conditions satisfactory to the Chief Executive Officer or their delegate, on behalf of Council.
 3. Request a report be submitted to Council to review the lease approval, should any club not obtain all necessary approvals within four (4) years from the date of this approval.
 4. Refer the construction of the shared amenities and/or carpark for consideration in a future budget.

4. BACKGROUND & PREVIOUS COUNCIL CONSIDERATION

Council resolved at the Ordinary Meeting No. 4/24 held on Wednesday 24 April 2024 to seek expressions of interest (EOI) from community organisations for land at the Maryborough Airport.

ORD 11.2.4 Lease Feasibility – Maryborough Airport Land

Resolution (Paul Truscott/Daniel Sanderson)

That Council authorise the Chief Executive Officer to call for expressions of interest from interested community groups to enter into a freehold lease for part of the land identified in the report with applications to be evaluated on:

- a. *Demonstrated broad community benefit for the life of the lease.*
- b. *Demonstrated commitment to shared use to maximise utilisation of the land, where possible.*
- c. *Demonstrated and encouraged broad community participation and development opportunities.*

Carried Unanimously

Five applications from community and sporting groups seeking interest in the land were received. Following an internal evaluation of the applications, four applications were selected for inclusion in a preliminary design to ensure that site constraints could be navigated.

Site Plan Development

Following the EOI, Council engaged an architect to prepare a site layout plan.

The architect was commissioned to perform a preliminary master plan design layout and colour palette specification for the site taking into consideration building legislation and site construction (See Attachment 1 for the precinct master plan). This design will guide the development of the precinct as each community groups commences construction. Whilst the precinct shows a carpark and common amenities block, there is currently no allocated funding to provide these facilities, and the groups will need to make their own arrangements until funding is obtained.

The site presents some practical constraints that will need to be addressed as part of future planning. These include:

- Limited connection to essential infrastructure (e.g. water, electricity);
- No existing shared amenities.

5. PROPOSAL

It is proposed that Council offer the following groups leases over the land so that they can commence the process to construct premises in line with their proposed Expression of Interest (see Attachment 1 for proposed placement on the site):

- Rotary Club of Maryborough City Inc
- Rotary Club of Maryborough Sunrise Inc
- Older Men Unlimited Inc
- Maryborough Women's Shed Inc

The final terms and conditions of each lease are to be negotiated and finalised to the satisfaction of the Chief Executive Officer or delegate, with authority granted for the execution of the leases accordingly.

Whilst the building size needs to be consistent to support the objectives of the master plan, there is capacity before leases are executed for groups to swap locations. This will be at the discretion of the Chief Executive Officer, or their delegate as part of lease negotiations.

6. FINANCIAL & RESOURCE IMPLICATIONS

In alignment with the Fraser Coast Regional Council Land/Lease Assistance for Not-for-Profit Incorporated Community Groups (Sport, Recreation, Arts and Culture and Community) Policy, costs associated with the preparation and finalisation of the leases are the responsibility of the respective Lessees. These costs may include but are not limited to, legal, surveying and registration fees. All groups are aware of these costs and that the lease fee applied for community group leases under this policy for rent, is \$1 per annum.

The groups are aware that all cost associated with the approval and development of the building are their responsibility.

7. POLICY & LEGAL IMPLICATIONS

In accordance with Council's Land/Lease Assistance for Not-for-Profit Incorporated Community Groups Policy, adopted on 20 January 2016, the standard lease term for community leases of this nature is ten (10) years.

Local Government Act 2009.

Local Government Regulation 2012:

- Section 227 – Requirement for tender or auction
- Section 236(1)(b)(ii) – Exemption for community organisation.

A resolution of Council is required to apply the exemption under Section 236.

8. RISK IMPLICATIONS

The site presents several practical risks that may impact delivery:

- Infrastructure Limitations: The site may have limited connection to essential services such as water, sewerage, and electricity.

-
- **Construction Costs:** The cost of developing individual facilities may exceed the financial capacity of some groups.
 - **No existing shared amenities:** The site does not include shared amenities. Each group would be responsible for incorporating necessary facilities into their own building design or making separate arrangements. Public toilets are located at the Airport and may offer interim support.

These risks are proposed to be managed by providing the groups with up to four years to progress investigations, secure funding, and meet all necessary planning and approval requirements prior to formalising a lease.

Council may also consider funding shared infrastructure in future budget processes.

9. CRITICAL DATES & IMPLEMENTATION

Lessees will have four (4) years to provide building and financial evidence of pending construction for the lease to be formalised to ensure appropriate tenure arrangements are in place for the ongoing and compliant use of their respective sites.

10. CONSULTATION

Internal consultation has occurred with Councillors and senior management.

Each of the lessees has been contacted to confirm their intention to enter into a lease, subject to Council's consideration. All lessees have expressed an interest in entering into a lease.

The Old Men Unlimited have identified that it is their preference for their building to be located next to the skindivers as they have a current sub lease in this building and will continue to maintain this lease once their building is constructed. Unfortunately, due to the different designs of the building, the Architect has identified that their building is better located near the existing Lions Club to allow sufficient access for the Lions Club, facilitate an internal parking space, and connection to the current building. They are in conversation with the Maryborough Women's Shed to swap location but keep the same size design consistent with the master plan.

11. CONCLUSION

The coordinated lease arrangement provides an opportunity to optimise use of Council-owned land, support multiple community organisations, and establish long-term tenure arrangements that enables the delivery of social, cultural, and recreational outcomes for the broader community.

12. ATTACHMENTS

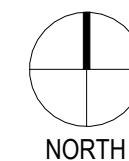
1. Master Plan including site layout and colour palette [↓](#)



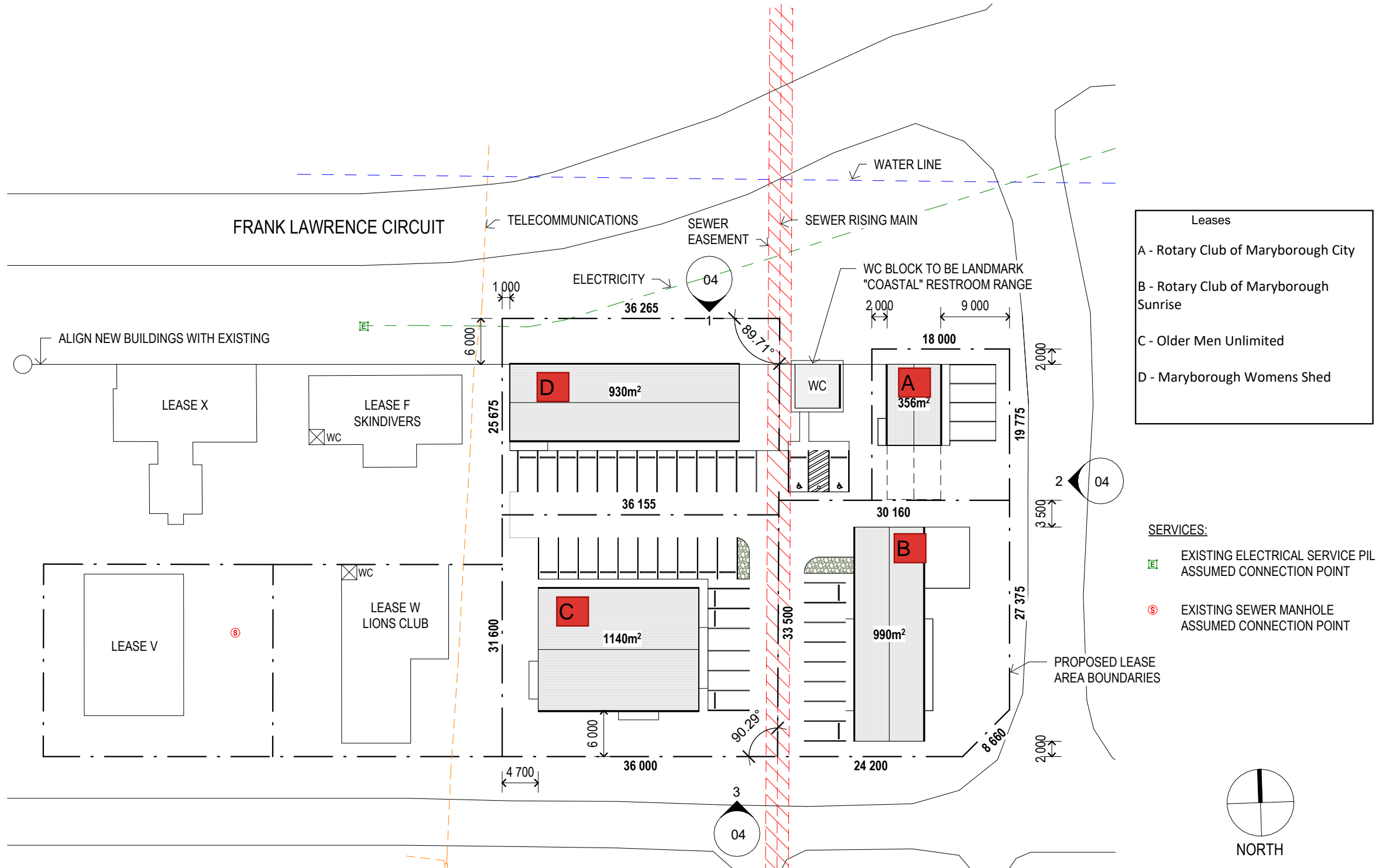
SHEET INDEX		
SHEET No.	SHEET NAME	REVISION
01	LOCALITY PLAN	A
02	SITE PLAN	A
03	FLOOR PLAN	A
04	ELEVATIONS	A
05	BUILDING GUIDELINES	A
06	COLOUR GUIDELINES	A

SITE INFORMATION:	
LOT	1 ON SP268957
AREA	4300 m ²
LOCALITY	MARYBOROUGH
COUNCIL	FRASER COAST REGIONAL COUNCIL

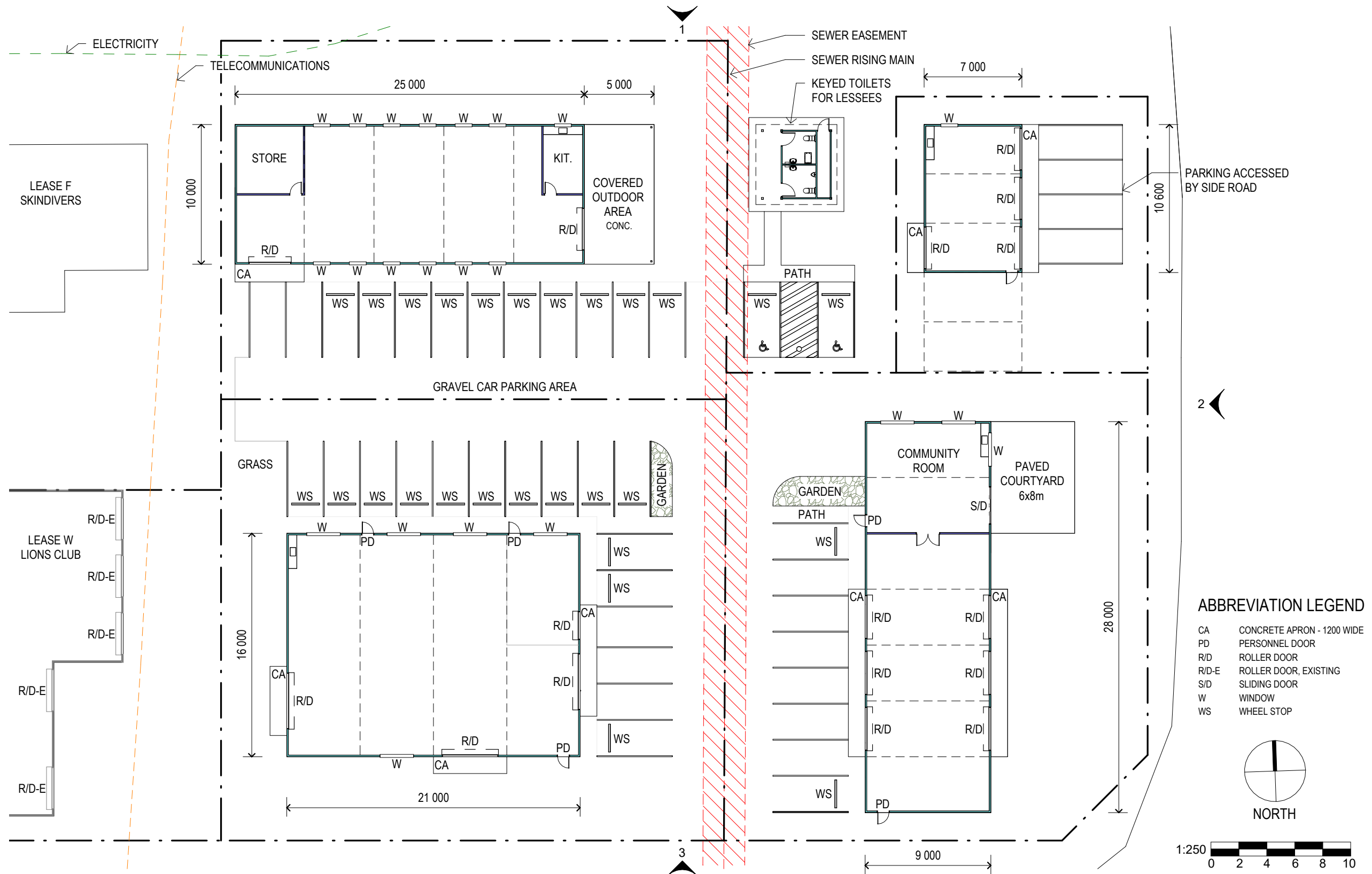
- NOTES:**
- THIS SET OF DRAWINGS IS INTENDED TO PROVIDE GUIDANCE TO COUNCIL AND TO POTENTIAL LEASE HOLDERS AS TO WHAT WILL BE ACCEPTABLE FOR NEW BUILDINGS TO BE CONSTRUCTED ON THIS SITE.
 - THE SITE LAYOUT IS BASED ON THE INFORMATION PROVIDED BY POTENTIAL LEASE HOLDERS IN RESPONSE TO COUNCIL'S REQUEST FOR EXPRESSIONS OF INTEREST AND SUBSEQUENT CONSULTATION WITH EACH GROUP.
 - BUILDING PAD LEVELS TO BE DETERMINED BY FUTURE CIVIL ENGINEERING DESIGN.



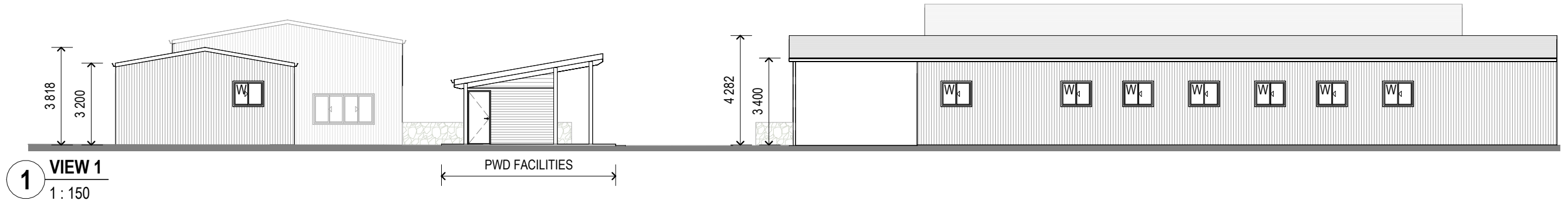
ISSUE	DESCRIPTION	DATE	AUTH	PROJECT:	54 TORQUAY ROAD PIALBA Q 4655 TELEPHONE: (07) 4123 1005 info@keystonearchitects.com	DATE:	DRAWING TITLE:			
A	APPROVAL	10.07.25	MG	MARYBOROUGH AIRPORT COMMUNITY LEASES GUIDELINES		10/07/2025	LOCALITY PLAN			
				SITE: FRANK LAWRENCE CIRCUIT MARYBOROUGH QLD 4650		DRAWN: JR				
				FOR: FRASER COAST REGIONAL COUNCIL		CHK: MG	DRAWING No.	01	01 of 6	ISSUE:
						SCALE: 1:5000	2477	01	A3 ORIGINAL	A



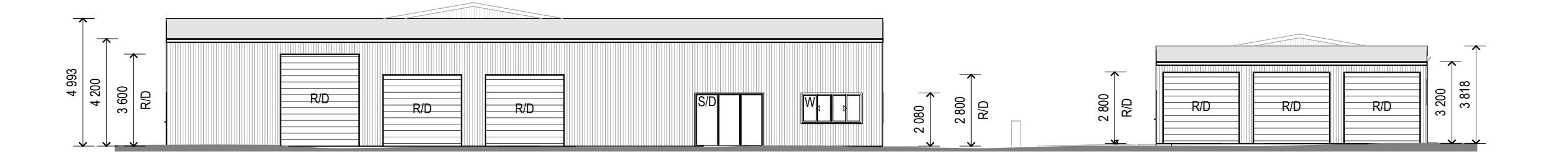
ISSUE	DESCRIPTION	DATE	AUTH	PROJECT:	54 TORQUAY ROAD PIALBA Q 4655 TELEPHONE: (07) 4123 1005 info@keystonearchitects.com	DATE:	DRAWING TITLE:
A	APPROVAL	10.07.25	MG	MARYBOROUGH AIRPORT COMMUNITY LEASES GUIDELINES	 KEYSTONE ARCHITECTS	10/07/2025	SITE PLAN
				SITE: FRANK LAWRENCE CIRCUIT MARYBOROUGH QLD 4650		DRAWN: JR	
				FOR: FRASER COAST REGIONAL COUNCIL		CHK: MG	DRAWING No. 2477
						SCALE: 1:500	02 of 6 A3 ORIGINAL
							ISSUE: A



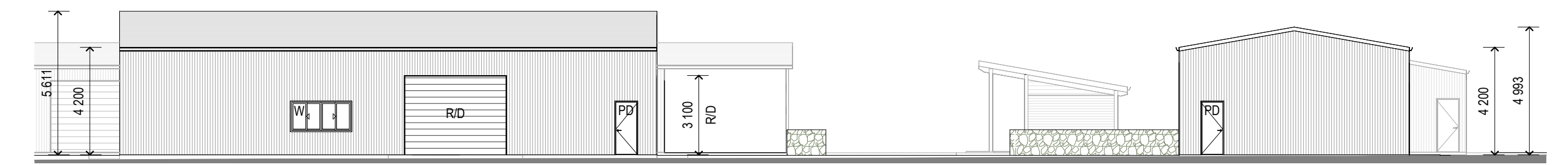
ISSUE	DESCRIPTION	DATE	AUTH	PROJECT:	54 TORQUAY ROAD PIALBA Q 4655 TELEPHONE: (07) 4123 1005 info@keystonearchitects.com	DATE:	DRAWING TITLE:
A	APPROVAL	10.07.25	MG	MARYBOROUGH AIRPORT COMMUNITY LEASES GUIDELINES		10/07/2025	FLOOR PLAN
				SITE: FRANK LAWRENCE CIRCUIT MARYBOROUGH QLD 4650		DRAWN: JR	DRAWING No.
				FOR: FRASER COAST REGIONAL COUNCIL		CHK: MG	2477
						SCALE: 1:250	03 of 6 A3 ORIGINAL
							ISSUE: A



1 VIEW 1
1 : 150




2 VIEW 2
1 : 150



3 VIEW 3
1 : 150

ABBREVIATION LEGEND

- PD PERSONNEL DOOR
- R/D ROLLER DOOR
- S/D SLIDING DOOR
- W WINDOW

ISSUE A	DESCRIPTION APPROVAL	DATE 10.07.25	AUTH MG	PROJECT: MARYBOROUGH AIRPORT COMMUNITY LEASES GUIDELINES	54 TORQUAY ROAD PIALBA Q 4655 TELEPHONE: (07) 4123 1005 info@keystonearchitects.com	DATE: 10/07/2025	DRAWING TITLE: ELEVATIONS			
				SITE: FRANK LAWRENCE CIRCUIT MARYBOROUGH QLD 4650	 KEYSTONE ARCHITECTS	DRAWN: JR	DRAWING No. 2477	04	04 of 6 A3 ORIGINAL	ISSUE: A
				FOR: FRASER COAST REGIONAL COUNCIL		CHK: MG	SCALE: 1:150			




Maryborough Airport Reserve Guidelines for New Buildings

New buildings proposed to be built on this site must be of similar scale, materiality and colour palette to the existing buildings, some of which date from the WWII use of the site as an airforce base.

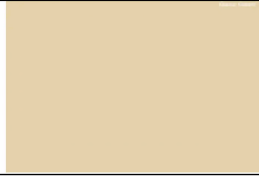
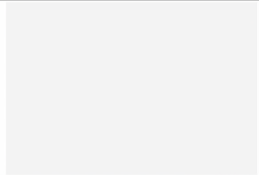

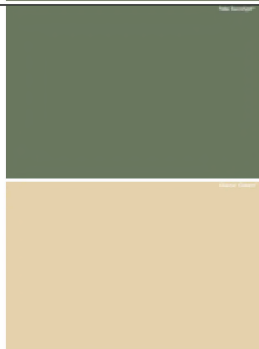
The existing buildings are:


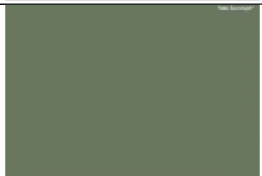
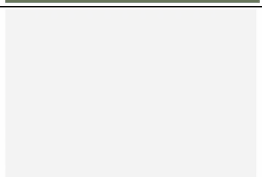
- War era P1 huts.
- War era aircraft hangers.
- War era former latrine, now store, which is timber framed and corrugated metal sheet clad.
- War era sick bay building which is timber framed with raised timber floor on masonry base clad with timber weatherboards and timber windows.
- Recent concrete slab on ground steel portal frame metal clad buildings.
- Recent rendered concrete block hall used by the Caledonian Society. This building is currently mid to light grey. We recommend when repainted this building should be brought into line with the approved site colour palette.


ISSUE	DESCRIPTION	DATE	AUTH	PROJECT:	54 TORQUAY ROAD PIALBA Q 4655 TELEPHONE: (07) 4123 1005 info@keystonearchitects.com	DATE:	DRAWING TITLE:		
A	APPROVAL	10.07.25	MG	MARYBOROUGH AIRPORT COMMUNITY LEASES GUIDELINES	 KEYSTONE ARCHITECTS	10/07/2025	BUILDING GUIDELINES		
				SITE: FRANK LAWRENCE CIRCUIT MARYBOROUGH QLD 4650		DRAWN: JR	DRAWING No.	05 of 6	ISSUE:
				FOR: FRASER COAST REGIONAL COUNCIL		CHK: MG	2477	05	A
						SCALE: NTS		A3 ORIGINAL	




Landmark "Coastal" range restroom – PWD X 2.
Cladding, posts and roof framing to be Colorbond Pale Eucalypt.
Doors and door frames to be white.

Item	Finish	Colour	Image
Walls	Colorbond steel	Classic Cream	
Windows	Powdercoated aluminium or painted timber	White	
Doors	Painted timber	To match Pale Eucalypt	
Roller doors	Colorbond steel	Pale Eucalypt or Classic Cream	

Fascias, barge boards	Colorbond Steel or painted timber	To match Pale Eucalypt	
Gutters	Colorbond steel	Pale Eucalypt	
Posts	Painted steel, duragal or timber	White	
Roof	Corrugated profile	No colour	
Trims	Various.	To be selected from the palette of colours	

ISSUE	DESCRIPTION	DATE	AUTH	PROJECT:	54 TORQUAY ROAD PIALBA Q 4655 TELEPHONE: (07) 4123 1005 info@keystonearchitects.com	DATE:	DRAWING TITLE:		
A	APPROVAL	10.07.25	MG	MARYBOROUGH AIRPORT COMMUNITY LEASES GUIDELINES	 KEYSTONE ARCHITECTS	10/07/2025	COLOUR GUIDELINES		
				SITE: FRANK LAWRENCE CIRCUIT MARYBOROUGH QLD 4650		DRAWN: JR	DRAWING No.	06 of 6	ISSUE:
				FOR: FRASER COAST REGIONAL COUNCIL		CHK: MG	2477	06	A
						SCALE: NTS		A3 ORIGINAL	



ISSUE	AMENDMENT	DATE	AUTH			PROJECT	MARYBOROUGH AIRPORT COMMUNITY LEASES GUIDELINES	<small>54 TORQUAY ROAD PIALBA Q 4655 TELEPHONE: (07) 4123 1005 info@keystonearchitects.com</small>  KEYSTONE ARCHITECTS	DATE	10/07/2025	DRAWING TITLE	SITE LOCATION						
A	APPROVAL	10.07.25	MG			SITE	FRANK LAWRENCE CIRCUIT MARYBOROUGH QLD 4650		DRAWN	JR	CHECKED	MG	DRAWING No.	2477	10	10 of 6	ISSUE	A
						FOR	FRASER COAST REGIONAL COUNCIL		SCALE	1:1000						A1 SIZE ORIGINAL		

FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25

WEDNESDAY, 27 AUGUST 2025

SUBJECT:	REQUEST FOR NEW LEASE - SUNBURY SPORTS ASSOCIATION INCORPORATED
DIRECTORATE:	ORGANISATIONAL SERVICES
RESPONSIBLE OFFICER:	DIRECTOR ORGANISATIONAL SERVICES
AUTHOR:	EXECUTIVE MANAGER CORPORATE SERVICES
LINK TO CORPORATE PLAN:	Focused Organisation and Leadership. Demonstrate good leadership, and effective and ethical decision-making to foster confidence within our community.

1. PURPOSE

This report seeks Council approval to enter into a new lease with Sunbury Sports Association Incorporated over part of Council-controlled land located on Searle Street, Maryborough, without undertaking a tender or auction, under Section 236(1)(b)(ii) of the *Local Government Regulation 2012* (the 'Regulation').

2. EXECUTIVE SUMMARY

This report seeks Council's resolution to approve an exception under Section 236 of the Regulation, allowing the disposal of a valuable non-current asset other than by tender or auction, through the granting of a lease to a community organisation.

A local community sporting organisation, Sunbury Sports Association Incorporated (the 'Group'), has approached Council seeking to lease part of the land located at 61 Searle Street, Maryborough, described as Lot 1 on M20395 (the 'Land') to develop a playing field. The land is the former Maryborough Landfill and is listed on the Environmental Management Register under the *Environmental Protection Act 1994*.

While the land presents environmental and physical constraints, the group is willing to undertake the necessary investigations and seek all required approvals at their own cost to determine whether the land is suitable for development. The group initially requested that Council confirm the level of contamination and land suitability but have acknowledged this will need to be determined through their own investigations.

This report recommends progressing a lease on a conditional basis to allow the group to explore the land's potential while ensuring Council retains appropriate oversight.

3. OFFICER'S RECOMMENDATION

That Council:

1. Resolves to dispose of an interest in land to Sunbury Sports Association Incorporated over part of council-controlled land located at 61 Searle Street, Maryborough, described as Lot 1 on M20395, other than by tender or auction, in accordance with section 236(1)(b)(ii) of the *Local Government Regulation 2012*.
2. Delegates authority to the Chief Executive Officer, or their delegate, to negotiate, finalise, and execute the lease outlined in this report, on terms and conditions satisfactory to the Chief Executive Officer or their delegate, on behalf of Council.
3. Request a report be submitted to Council to review the lease approval, should the group not obtain all necessary approvals within five (5) years from the date of this approval.

4. BACKGROUND & PREVIOUS COUNCIL CONSIDERATION

The Group

The Group has been operating for over 50 years in Maryborough, providing comprehensive junior and senior football (soccer) programs tailored to individuals of all ages and skills.

Over this time, the club has not had access to a dedicated facility and has operated out of school grounds and the cricket club. There are now significant challenges with the current training arrangements, as both football and cricket have experienced growth in participation. This has placed increased pressure on field availability.

The club is now seeking a place to call their own and establish a permanent base, having recorded over 250 registered players and 40 volunteers in 2024.

The group has identified a parcel of land on Bryant Street (formal address is Searle Street) that could meet their current and future needs. The group have requested to lease the eastern half fronting Bryant Street (Identified by orange dash line in Attachment 1).

Land

The land is a Council-managed reserve dedicated for "Park and Recreation". It was formerly used as the Maryborough Landfill, with operations ceasing in the 1990's. The land is currently not in active use.

The establishment of a playing field is considered consistent with the "Park and Recreation" dedication. This is further supported by the presence of Maryborough Softball Association who currently occupy the western half of the site (See attachment 2 for the title search).

Site Constraints and Considerations

The site presents a number of constraints that will need to be addressed before any development could proceed:

- The land is listed on the Environmental Management Register (EMR) due to past landfill operations (See Attachment 3). An analysis of the potential contamination and treatment options will need to be conducted by the group to establish the suitability of the land for the intended purpose.
- The topography is sloped and uneven and would require significant earthworks to accommodate a sporting field. Required approvals will need to be obtained by the group.
- There are no existing utility connections (e.g. sewer, power, water) to the site. Assessment will need to be conducted on the work involved to facilitate these connections for the intended purpose.

- The land contains vegetation, which may be subject to environmental protections or planning controls.
- The level of contamination is currently unknown, and no environmental testing has been undertaken by Council.

5. PROPOSAL

It is proposed that Council support the leasing of the Land to Sunbury Sports Association Incorporated, subject to the following conditions:

- The lessee must undertake all necessary investigations and seek all required approvals at their own cost;
- No development or site works may commence until the land is confirmed suitable for the proposed use and all necessary approvals have been obtained;
- A formal lease agreement is to be entered into within five years from the date of Council resolution.

Should the lease not be executed within this five (5) year period, Council will be presented with a report to review options.

6. FINANCIAL & RESOURCE IMPLICATIONS

In alignment with the Fraser Coast Regional Council Land/Lease Assistance for Not-for-Profit Incorporated Community Groups (Sport, Recreation, Arts and Culture and Community) Policy, costs associated with the preparation and finalisation of the leases are the responsibility of the respective Lessees. These costs may include but are not limited to, legal, surveying and registration fees.

The Group is aware of these costs and that the lease fee applied for community group leases under this policy for rent, is \$1 per annum.

7. POLICY & LEGAL IMPLICATIONS

Local Government Regulation 2012

Section 236 (1) (b) (ii), (2) and (4), permits Council to dispose of an interest in land (a valuable non-current asset) to a community organisation without inviting tenders or conducting an auction provided approval is granted via a Council resolution.

The proposed new lessee, Sunbury Sports Association Incorporated, is a registered community organisation (org. number: IA03510).

Land/Lease Assistance for Not-for-Profit Incorporated Community Groups Policy (the 'Policy')

In accordance with the Policy, the standard lease term for community leases of this nature is ten (10) years. If a new lease is approved, the Group will be required to comply with the governance requirements of the Policy and submit a Certificate of Incorporation, Certificate of Currency, and independently audited financial statements.

Environmental Protection Act 1994 (EPA)

The land is listed on the EMR under the EPA due to a past notifiable activity. This listing indicates that the land may be contaminated, however, it does not automatically mean the site requires remediation or is unsuitable for its current or proposed use. The suitability depends on

the type, extent, and potential risk of any contamination, which can only be confirmed by engaging a suitably qualified person to undertake a detailed site investigation.

8. RISK IMPLICATIONS

There are several risks associated with progressing a lease over the land:

- **Environmental Risk:** The site is listed on the Environmental Management Register. Investigations may identify contamination that renders the site unsuitable for community use or requires remediation.
- **Infrastructure Limitations:** The site has no existing utility connections or supporting infrastructure, which may impact feasibility or significantly increase project costs.
- **Financial Capacity Risk:** The costs associated with testing, approvals, site works, and development may exceed the financial or operational capacity of the community group.
- **Regulatory Risk:** The group may be unable to obtain the required environmental or planning approvals, preventing the proposal from progressing to lease or development.

These risks will be mitigated by requiring the group to undertake all due diligence before a lease is formalised and by ensuring Council maintains oversight in accordance with its duty of care and statutory obligations.

9. CRITICAL DATES & IMPLEMENTATION

The proposed lessee will have a period of up to five years from the date of the Council resolution to:

- Undertake all necessary investigations;
- Confirm the land's suitability for the proposed use; and
- Enter into a formal lease agreement with Council.

If these requirements are not met within five years, Council will be presented with a report to review options.

10. CONSULTATION

Internal consultation has occurred with Councillors and senior management.

The proposed lessee has been contacted to confirm their intention to enter into a lease, subject to Council's consideration. Lessee has expressed an interest in entering into a lease even given the challenges.

11. CONCLUSION

The proposal from the Group presents an opportunity to activate unused Council-controlled land and deliver a community benefit. While the land presents environmental and physical challenges, these can be managed through a lease structure that requires the lessee to undertake investigations and obtain approvals, with Council maintaining appropriate oversight.

Should the site prove unsuitable, no further action will be taken without returning to Council. If viable, the leasing arrangement may deliver a future community benefit.

12. ATTACHMENTS

1. Land Area [↓](#)
2. Title Search [↓](#)
3. Environmental Management and Contaminated Land Register Search [↓](#)



INTERNAL CURRENT RESERVE SEARCH
QUEENSLAND TITLES REGISTRY PTY LTD

Search Date: 15/07/2025 17:09

Title Reference: 49023119
Date GAZETTED: 15/06/1985
PAGE: 1191-93

Opening Ref: RES 11801
Purpose: PARK AND RECREATION
Sub-Purpose:
Local Name:
Address: BRYANT ST.,MARYBOROUGH
County (R) No: R1513
File Ref: RES 22040

TRUSTEES

FRASER COAST REGIONAL COUNCIL GAZETTED ON 15/06/1985
PAGE 1191

LAND DESCRIPTION

LOT 1 CROWN PLAN M20395 GAZETTED ON 15/06/1985 PAGE 1191-93
Local Government: FRASER COAST

Area: 9.389000 Ha. (SURVEYED)

EASEMENTS AND ENCUMBRANCES

1. LEASE No 602826071 (1077) 15/01/1986
OF PART OF THE LAND
TO MARYBOROUGH SOFTBALL ASSOCIATION
TERM: COMMENCING 01/08/1985
TERMINATING 31/07/2015
THE TRUSTEES OF THE ABOVE ASSOCIATION ARE BARBARA JOAN
HOVARD, SANDRA MARGARET EDARDS AND JACK PHILLIPS
Lodged at 00:00 on 15/01/1986 Recorded at 00:00 on 15/01/1986
2. TRUSTEE LEASE No 716314499 16/02/2015 at 10:04
MARYBOROUGH SOFTBALL ASSOCIATION INCORPORATED
OF PART OF THE LAND (LEASE A)
TERM: 01/08/2015 TO 31/07/2025 OPTION NIL
Lodged at 10:04 on 16/02/2015 Recorded at 10:23 on 13/03/2015

ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Reserve Search **



Department of Environment, Science and Innovation (DESI)
ABN 46 640 294 485
GPO Box 2454, Brisbane QLD 4001, AUSTRALIA
www.des.qld.gov.au

SEARCH RESPONSE
ENVIRONMENTAL MANAGEMENT REGISTER (EMR)
CONTAMINATED LAND REGISTER (CLR)

Sydney Shang
77 Tavistock Street
Torquay QLD 4655

Transaction ID: 50991490 EMR Site Id: 8776 17 February 2025
Client Reference:
Cheque Number:

This response relates to a search request received for the site:

Lot: 1 Plan: M20395

EMR RESULT

The above site IS included on the Environmental Management Register.

Lot: 1 Plan: M20395
Address: SEARLE STREET
MARYBOROUGH 4650

The site has been subject to the following Notifiable Activity or Hazardous Contaminant.
LANDFILL - disposing of waste (excluding inert construction and demolition waste).

CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

All search responses include particulars of land listed in the EMR/CLR when the search was generated.
The EMR/CLR does NOT include:-

1. land which is contaminated land (or a complete list of contamination) if DESI has not been notified
2. land on which a notifiable activity is being or has been undertaken (or a complete list of activities) if DESI has not been notified

If you have any queries in relation to this search please email emr.clr.registry@des.qld.gov.au

Administering Authority

FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25

WEDNESDAY, 27 AUGUST 2025

SUBJECT:	REQUEST FOR NEW LEASES - GOVERNMENT AGENCIES
DIRECTORATE:	ORGANISATIONAL SERVICES
RESPONSIBLE OFFICER:	DIRECTOR ORGANISATIONAL SERVICES
AUTHOR:	LEASING & LAND SPECIALIST
LINK TO CORPORATE PLAN:	Focused Organisation and Leadership. Demonstrate good leadership, and effective and ethical decision-making to foster confidence within our community.

1. PURPOSE

The purpose of this report is to seek Council's approval to enter into new leases with government agencies occupying Council-owned or controlled land, without undertaking a tender or expression of interest process, by applying the exemptions under Section 236(1)(b), sub-paragraph (i) of the *Local Government Regulation 2012* (the 'Regulation').

2. EXECUTIVE SUMMARY

This report seeks Council's approval to enter into leases with government agencies who are already occupying Council-owned or controlled land where the previous lease has expired. These new leases are proposed to be finalised without undertaking a tender or expression of interest process, by applying the exemption available under the Regulation.

Entering into new leases will ensure the continued occupation and use of Council-owned or controlled land by established government agencies that provide ongoing community benefits.

3. OFFICER'S RECOMMENDATION

That Council:

1. Pursuant to Section 236 (1)(b)(i) of the *Local Government Regulation 2012*, resolves to apply the exemption to dispose of an interest in land to the Queensland Fire Department and as described in this report, without the need for a tender or auction for the following land:
 - a. Lot 61 on Crown Plan B814
 - b. Lot 1 on RP168851
 - c. Lot 1 on RP35327
 - d. Lot 34 on RP4955

2. Delegates authority to the Chief Executive Officer, or their delegate, to negotiate, finalise, and execute the leases outlined in this report, on terms and conditions satisfactory to the Chief Executive Officer or their delegate, on behalf of Council.

4. BACKGROUND & PREVIOUS COUNCIL CONSIDERATION

Council provides tenure to eligible government agencies through its community leasing framework to enable the delivery of government, social, recreational, cultural and environmental outcomes. These agreements allow organisations to invest in their operations while contributing to local wellbeing and community activation.

Council currently has leases in place with various government agencies occupying Council-owned or controlled land.

Under Section 227 of the *Local Government Regulation 2012*, a local government cannot dispose of a valuable non-current asset without first inviting written tenders or offering the non-current asset for sale by auction. However, this Section is subject to an exemption under Section 236(1)(b) which applies where the disposal is to either a “government agency” or a “community organisation.”

5. PROPOSAL

It is proposed that Council approve the renewal of leases for the government agencies listed in this report for their respective sites, in accordance with the Regulation.

The details of the leases are as follows with the lease areas as per Attachment 1:

No.	Tenant Name	Property Description	Site / Location	Comment
1	Queensland Fire Department	Lot 61 on Crown Plan B814	1 McIvor Street, River Heads	Occupied by the River Heads Rural Fire Brigade
2	Queensland Fire Department	Lot 1 on RP168851	838 Torbanlea Pialba Road, Takura	Occupied by the Takura Rural Fire Brigade
3	Queensland Fire Department	Lot 1 on RP35327	Aalborg Road North, Nikenbah	Occupied by the Nikenbah Rural Fire Brigade
4	Queensland Fire Department	Lot 34 on RP4955	6 Copenhagen Street, Tiaro	Occupied by the Tiaro Rural Fire Brigade and Tiaro SES

Renewing these leases will provide the respective tenants with security of tenure and support the continued delivery of valuable community, cultural, recreational, or operational services. The terms and conditions of each lease are to be negotiated and finalised to the satisfaction of the Chief Executive Officer or delegate, with authority granted for the execution of the leases accordingly.

6. FINANCIAL & RESOURCE IMPLICATIONS

In alignment with the Fraser Coast Regional Council Land/Lease Assistance for Not-for-Profit Incorporated Community Groups (Sport, Recreation, Arts and Culture and Community) Policy,

costs associated with the preparation and finalisation of the leases are the responsibility of the respective Lessees. These costs may include but are not limited to, legal, surveying and registration fees. All groups are aware of these costs and that the lease fee applied for community group leases under this policy for rent, is \$1 per annum.

7. POLICY & LEGAL IMPLICATIONS

In accordance with Council's Land/Lease Assistance for Not-for-Profit Incorporated Community Groups Policy, adopted on 20 January 2016, the standard lease term for community leases of this nature is ten (10) years.

Local Government Act 2009.

Local Government Regulation 2012:

- Section 227 – Requirement for tender or auction.
- Section 236(1)(b) – Exemption for government agency or a community organisation.

A resolution of Council is required to apply the exemption under Section 236 of the Regulation.

8. RISK IMPLICATIONS

Without formal leases, government agencies lack security of tenure, which can lead to uncertainty around responsibilities for maintenance, missed funding opportunities, and the potential decline of facilities.

If new leases are not approved, Council faces a risk, as current occupants would continue to use the sites without formal arrangements in place. This may expose Council to legal, governance, and operational risks associated with unauthorised occupancy.

9. CRITICAL DATES & IMPLEMENTATION

Leases are to be formalised with the government agencies listed in this report as a priority, to ensure appropriate tenure arrangements are in place for the ongoing and compliant use of their respective sites

10. CONSULTATION

Each of the lessees has been contacted to confirm their intention to enter into a new lease, subject to Council's consideration. All lessees have expressed an interest in entering into a lease.

11. CONCLUSION

The leasing of Council-managed land to government agencies enables the delivery of significant social, cultural, and recreational outcomes for the broader community. Formalising these lease arrangements will provide the respective entities with security of tenure, thereby supporting the responsible management, maintenance, and utilisation of the land and associated facilities.

12. ATTACHMENTS

1. Lease Areas [↓](#)

ATTACHMENT 1
LOCALITY MAPS

LEASED AREAS SHOWN OUTLINED IN **YELLOW**

**1 Queensland Fire Department (River Heads Rural Fire Brigade Station)
1 McIvor Street, River Heads**



**2 Queensland Fire Department (Takura Rural Fire Brigade Station)
838 Torbanlea Pinalba Road, Takura**



**3 Queensland Fire Department (Nikenbah Rural Fire Brigade Station)
Aalborg Road North, Nikenbah**



**4 Queensland Fire Department (Tiaro Rural Fire Brigade Station)
6 Copenhagen Street, Tiaro**



FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25

WEDNESDAY, 27 AUGUST 2025

SUBJECT:	REQUEST FOR NEW LEASES - COMMUNITY ORGANISATIONS
DIRECTORATE:	ORGANISATIONAL SERVICES
RESPONSIBLE OFFICER:	DIRECTOR ORGANISATIONAL SERVICES
AUTHOR:	LEASING & LAND SPECIALIST
LINK TO CORPORATE PLAN:	Focused Organisation and Leadership. Demonstrate good leadership, and effective and ethical decision-making to foster confidence within our community.

1. PURPOSE

This report seeks Council approval to renew multiple leases with community groups under Section 236(1)(ii) of the *Local Government Regulation 2012*.

2. EXECUTIVE SUMMARY

This report seeks Council's approval to enter into leases with community groups who are already occupying Council-owned or controlled land where the previous lease is due to expire or has already expired. These new leases are proposed to be finalised without undertaking a tender or expression of interest process, by applying the exemption available under the Regulation.

Entering into new leases will ensure the continued occupation and use of Council-owned or controlled land by established community organisations that provide ongoing community benefits.

3. OFFICER'S RECOMMENDATION

That Council:

1. Resolves to dispose of an interest in land to the community organisations identified in this report and listed below, other than by tender or auction, in accordance with section 236(1)(b)(ii) of the *Local Government Regulation 2012*:
 - a. Australian Air League Inc. - Lot 119 SP181963
 - b. Bay Potters Association Inc. - Lot 4 on RP35225
 - c. Burrum Benevolent Society Inc - Lot 4 on RP13673
 - d. Condry Park Pre-school and Kindergarten Association Inc - Lot 1 on RP906436
 - e. Dundowran Equestrian Park (Hervey Bay) Association Inc- Lot 6 on RP906440

- f. Fraser Coast Agriculture Show Society Inc. - Lot 125 on M2021
 - g. Fraser Coast Artslink Inc. - Lot 2 on RP35214 (Community Hall)
 - h. Fraser Coast Artslink Inc. - Lot 2 on RP35214 (Shed)
 - i. Fraser Coast Shooting Complex Association Inc - Lot 11 on MCH809455
 - j. Hervey Bay & District Tennis Association Inc – Lots 1,2,3,4 on RP35214
 - k. Hervey Bay Cricket Association Inc & Bay Power Australian Football Club Inc. - Lot 230 on SP239117
 - l. Hervey Bay Gem and Mineral Club Inc - Lot 7 on RP35274
 - m. Maitlia Potters Incorporated - Lot 24 on SP111087
 - n. Maryborough Amateur Basketball Association Incorporated - Lot 11 on MCH813263
 - o. Maryborough Family Heritage Institute Inc - Lot 6 on M20394
 - p. Riding for Disabled Association Maryborough Inc - Lot 5 on SP104303
 - q. Returned & Services League of Australia (Queensland Branch) Tiaro Sub Branch Inc - Lot 1 on CPT909
 - r. St John Ambulance Australia Queensland Limited – Lot 55 on M20190
2. Delegates authority to the Chief Executive Officer, or their delegate, to negotiate, finalise, and execute the leases outlined in this report, on terms and conditions satisfactory to the Chief Executive Officer or their delegate, on behalf of Council.

4. BACKGROUND & PREVIOUS COUNCIL CONSIDERATION

Council provides tenure to eligible community groups through its community leasing framework to enable the delivery of government, social, recreational, cultural and environmental outcomes. These agreements allow organisations to invest in their operations while contributing to local wellbeing and community activation.

Council currently has leases in place with various community organisations occupying Council-owned or controlled land. A number of these leases are due to expire or have already expired.

Under Section 227 of the *Local Government Regulation 2012*, a local government cannot dispose of a valuable non-current asset without first inviting written tenders or offering the non-current asset for sale by auction. However, this Section is subject to an exemption under Section 236(1)(b) which applies where the disposal is to either a “government agency” or a “community organisation.”

5. PROPOSAL

It is proposed that Council approve the renewal of leases for the community organisations listed in this report for their respective sites, in accordance with the Regulation.

The details of the leases are as follows with the lease areas as per Attachment 1:

No.	Tenant Name	Property Description	Site / Location
1	Australian Air League Inc.	Lot 119 SP181963	Hervey Bay Airport, Urangan
2	Bay Potters Association	Lot 4 RP35225	39 Totness Street, Torquay

No.	Tenant Name	Property Description	Site / Location
	Inc.		
3	Burrum Benevolent Society Inc	Lot 4 RP13673	95 William Street, Howard
4	Condy Park Pre-school and Kindergarten Association Inc	Lot 1 RP906436	161-179 Old Maryborough Road, Pialba
5	Dundowran Equestrian Park (Hervey Bay) Association Inc	Lot 6 RP906440	316 Lower Mountain Road, Dundowran
6	Fraser Coast Agriculture Show Society Inc	Lot 125 M2021	84 Gympie Road, Tinana
7	Fraser Coast Artslink Inc.	Lot 2 RP35214	Ralph Stafford Park, 187 Bideford Street, Torquay (Community Hall)
8	Fraser Coast Artslink Inc.	Lot 2 RP35214	Ralph Stafford Park, 187 Bideford Street, Torquay (Shed)
9	Fraser Coast Shooting Complex Association Inc.	Lot 11 MCH809455	933 Churchill Mine Road, Walliebum
10	Hervey Bay & District Tennis Association Inc	Lots 1,2,3,4 RP 35214	79 Colyton Street, Torquay
11	Hervey Bay Cricket Association Inc & Bay Power Australian Football Club Inc	Lot 230 SP239117	Corner Booral and Walkers Road, Urangan
12	Hervey Bay Gem and Mineral Club Inc	Lot 7 RP35274	18 Stephenson Street, Scarness
13	Maitlia Potters Incorporated	Lot 24 SP111087	116 Queen Street, Maryborough
14	Maryborough Amateur Basketball Association Incorporated	Lot 11 MCH813263	Newtown Oval, Ariadne Street, Maryborough
15	Maryborough Family Heritage Institute Inc.	Lot 6 M20394	164 Richmond Street, Maryborough
16	Riding for Disabled Association Maryborough Inc.	Lot 5 SP104303	79 Bidwill Road, Maryborough
17	Returned & Services League of Australia (Queensland Branch) Tiaro Sub Branch Inc	Lot 1 CP T909	Tiara Memorial Hall - 2 Forgan Terrace Tiara
18	St John Ambulance Australia Queensland Limited	Lot 55 on M20190	Queens Street, Maryborough

Renewing these leases will provide the respective tenants with security of tenure and support the continued delivery of valuable community, cultural, recreational, or operational services. The terms and conditions of each lease are to be negotiated and finalised to the satisfaction of the Chief Executive Officer or delegate, with authority granted for the execution of the leases accordingly.

6. FINANCIAL & RESOURCE IMPLICATIONS

In alignment with the Fraser Coast Regional Council Land/Lease Assistance for Not-for-Profit Incorporated Community Groups (Sport, Recreation, Arts and Culture and Community) Policy, costs associated with the preparation and finalisation of the leases are the responsibility of the respective Lessees. These costs may include but are not limited to, legal, surveying and registration fees. All groups are aware of these costs and that the lease fee applied for community group leases under this policy for rent, is \$1 per annum.

7. POLICY & LEGAL IMPLICATIONS

In accordance with Council's Land/Lease Assistance for Not-for-Profit Incorporated Community Groups Policy, adopted on 20 January 2016, the standard lease term for community leases of this nature is ten (10) years.

Local Government Act 2009.

Local Government Regulation 2012:

- Section 227 – Requirement for tender or auction.
- Section 236(1)(b) – Exemption for government agency or a community organisation.

A resolution of Council is required to apply the exemption under Section 236.

8. RISK IMPLICATIONS

Without formal leases, community groups lack security of tenure, which can lead to uncertainty around responsibilities for maintenance, missed funding opportunities, and the potential decline of facilities.

If new leases are not approved, Council faces a risk, as current occupants would continue to use the sites without formal arrangements in place. This may expose Council to legal, governance, and operational risks associated with unauthorised occupancy.

9. CRITICAL DATES & IMPLEMENTATION

Leases are to be formalised with the community groups listed in this report as a priority, to ensure appropriate tenure arrangements are in place for the ongoing and compliant use of their respective sites.

10. CONSULTATION

Each of the lessees has been contacted to confirm their intention to enter into a new lease, subject to Council's consideration. All lessees have expressed an interest in entering into a lease.

11. CONCLUSION

The leasing of Council-managed land to community organisations enables the delivery of significant social, cultural, and recreational outcomes for the broader community. Formalising these lease arrangements will provide the respective entities with security of tenure, thereby supporting the responsible management, maintenance, and utilisation of the land and associated facilities.

12. ATTACHMENTS

1. Lease Areas [↓](#)

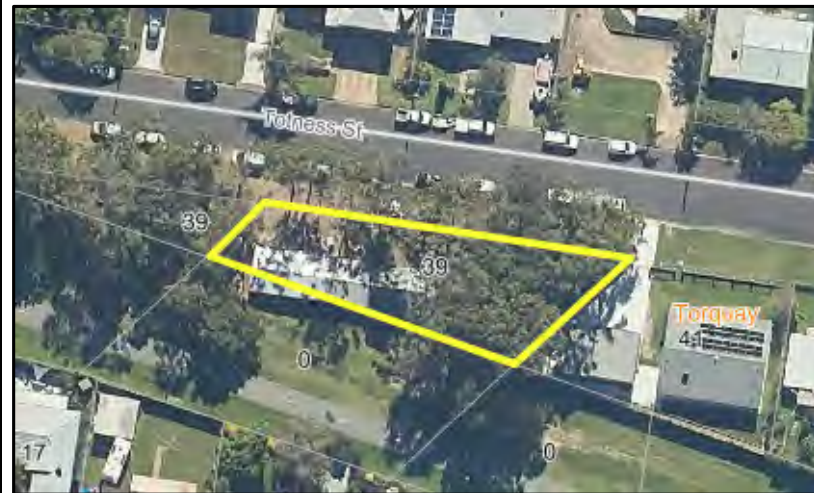
ATTACHMENT 1
LOCALITY MAPS

LEASED AREAS SHOWN OUTLINED IN **YELLOW**

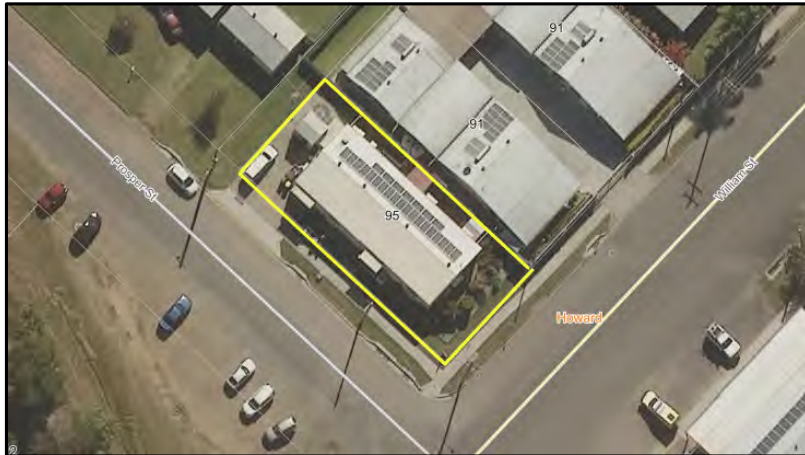
a Australia Air League Inc. - Lot 119 SP181963



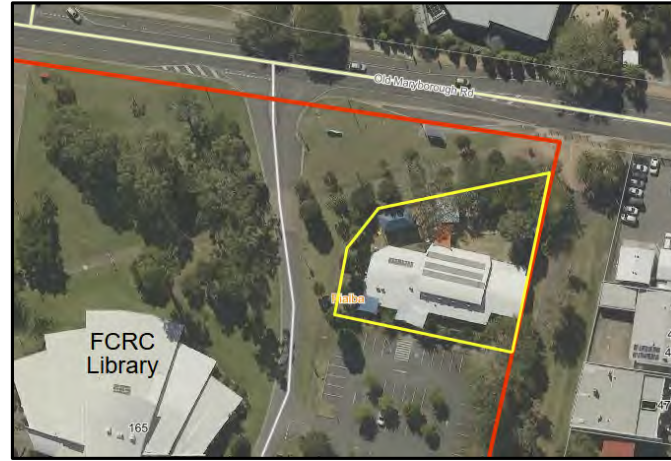
b Bay Potters Association Inc. - Lot 4 on RP35225



c Burrum Benevolent Society Inc. – Lot 4 on RP13673



d Condy Park Preschool & Kindergarten- Lot 1 on RP906436



e Dundowran Equestrian Park (Hervey Bay) Association Inc. - Lot 6 on RP906440



f Fraser Coast Agriculture Show Society Inc. - Lot 125 on M2021



g. Fraser Coast Artslink Inc. - Lot 2 on RP35214 (Community Hall)



h. Fraser Coast Artslink Inc. - Lot 2 on RP35214 (Shed)



i. Fraser Coast Shooting Complex Association Inc. – Lot 11 on MCH809455



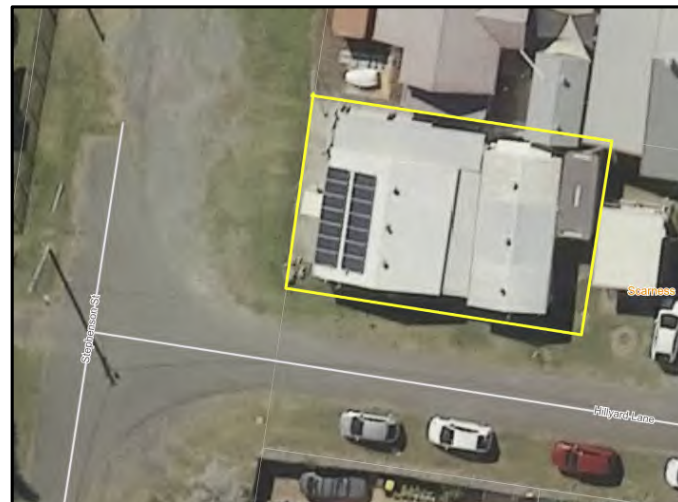
j. Hervey Bay & District Tennis Association Inc. – Lots 1,2,3,4 on RP 35214



k Hervey Bay Cricket Assoc Inc. & Bay Power AFL Inc. - Lots 1,2,3,4 on RP 35214



l Hervey Bay Gem & Mineral Club - Lot 7 on RP35274



m Maitlia Potters Inc. - Lot 24 on SP111087



n Maryborough Amateur Basketball Association Inc. - Lot 11 on MCH813263



o Maryborough Family Heritage Institute Inc. - Lot 6 on M20394



p Riding for Disabled Association Maryborough Inc. - Lot 5 on SP104303



q. RSL of Australia Tiaro Sub Branch Inc. - Lot 1 on CP T909



FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25

WEDNESDAY, 27 AUGUST 2025

SUBJECT:	REQUEST FOR NEW LEASE - MARYBOROUGH GARDEN CLUB INC
DIRECTORATE:	ORGANISATIONAL SERVICES
RESPONSIBLE OFFICER:	DIRECTOR ORGANISATIONAL SERVICES
AUTHOR:	LEASING & LAND SPECIALIST
LINK TO CORPORATE PLAN:	Focused Organisation and Leadership. Demonstrate good leadership, and effective and ethical decision-making to foster confidence within our community.

1. PURPOSE

This report seeks Council approval to enter into a new lease with the Maryborough Garden Club Inc over Council-controlled land on Mcliver Street, Hervey Bay, under Section 236(1)(b)(ii) of the *Local Government Regulation 2012* (the 'Regulation').

2. EXECUTIVE SUMMARY

Council entered into a 12-month Memorandum of Understanding (MOU) in October 2024 to support the ongoing operation of the Rainbow Gully Community Garden on Council-controlled land. The MOU was with an individual associated with Maryborough Garden Club Inc acting on behalf of the Rainbow Gully Community Garden Group. The MOU was intended as a short-term arrangement while an incorporated entity was identified and a formal lease could be developed.

The group has recently requested approval to install a shed, which cannot proceed without formal tenure. Maryborough Garden Club Inc, an incorporated entity, has agreed to enter into a lease with Council, with the Rainbow Gully Community Garden Group continuing to operate the garden.

It is recommended that Council resolve to dispose of an interest in the land to Maryborough Garden Club Inc, other than by tender or auction, in accordance with section 236(1)(b)(ii) of the Regulation.

3. OFFICER'S RECOMMENDATION

That Council:

1. Resolves to dispose of an interest in land to Maryborough Garden Club Inc for the land located at Mcliver Street, Hervey Bay "Rainbow Gully Community Gardens", described as

Lot 200 on RP806928, other than by tender or auction, in accordance with section 236(1)(b)(ii) of the *Local Government Regulation 2012*.

2. Delegates authority to the Chief Executive Officer, or their delegate, to negotiate, finalise, and execute the lease outlined in this report, on terms and conditions satisfactory to the Chief Executive Officer or their delegate, on behalf of Council.
3. Note that lease negotiations will include provisions for Council to retain the mowing and maintenance of the land.

4. BACKGROUND & PREVIOUS COUNCIL CONSIDERATION

Land details:

Owner	State
Council authority	Trustees
Purpose	Park and Recreation
Lot Plan	Lot 200 RP806298
Address	Mcliver Street Pialba

A community garden is currently operated on Council-controlled land located at Mcliver Street, Pialba. In October 2024, Council entered into a 12-month MOU with an individual associated with the Maryborough Garden Club Inc acting on behalf of the Rainbow Gully Community Garden.

The MOU outlines general responsibilities and expectations in relation to the use of existing infrastructure at Rainbow Gully Community Garden but does not provide formal tenure. The MOU was intended as a temporary measure while Council sought an incorporated entity to manage the garden and a lease arrangement could be developed.

In March 2025, the group approached Council seeking approval to install a shed to support ongoing operations. However, as the MOU does not grant any legal interest in the land, Council is unable to facilitate this request without a formal tenure arrangement.

Maryborough Garden Club Inc. has now agreed to enter into a lease with Council. The Rainbow Gully Community Garden will continue to manage and operate the garden under the oversight of the leaseholder.

During discussions, two concerns were raised by the group: the cost of obtaining a survey plan and responsibility for ongoing mowing of the site. To address these concerns, it is proposed that Council offer a lease over the entire lot, negating the need for a survey plan with Council retaining responsibility for mowing as lessor.

The lease will be offered on Council's standard community lease terms

5. PROPOSAL

It is proposed that Council grant a lease to Maryborough Garden Club Inc over the council-controlled land located at Mcliver Street, Pialba, described as Lot 200 on RP806928.

To enable this, Council must resolve to dispose of an interest in the land other than by tender or auction, in accordance with section 236(1)(b)(ii) of the Regulation, which allows land to be disposed of to a community organisation without tender.

The lease will:

-
- Be granted over the whole of the lot (Attachment 1), removing the need for a survey plan;
 - Be structured with Council retaining responsibility for mowing and general maintenance of the leased area.

This arrangement will provide the organisation with formal tenure to support their ongoing operations.

6. FINANCIAL & RESOURCE IMPLICATIONS

In alignment with the Fraser Coast Regional Council Land/Lease Assistance for Not-for-Profit Incorporated Community Groups (Sport, Recreation, Arts and Culture and Community) Policy, costs associated with the preparation and finalisation of the leases are the responsibility of the respective Lessees. These costs may include but are not limited to, legal, surveying and registration fees. All groups are aware of these costs and that the lease fee applied for community group leases under this policy for rent, is \$1 per annum.

7. POLICY & LEGAL IMPLICATIONS

In accordance with Council's Land/Lease Assistance for Not-for-Profit Incorporated Community Groups Policy, adopted on 20 January 2016, the standard lease term for community leases of this nature is ten (10) years.

Local Government Act 2009.

Local Government Regulation 2012:

- Section 227 – Requirement for tender or auction
- Section 236(1)(b)(ii) – Exemption for community organisation.

A resolution of Council is required to apply the exemption under Section 236.

8. RISK IMPLICATIONS

Entering into a lease with Maryborough Garden Club Inc, an incorporated entity, provides a clear legal arrangement and ensures accountability for the site. While the garden will be operated by the Rainbow Gully Community Garden, the leaseholder will be responsible for compliance with lease terms, including insurance and oversight of activities.

The proposed lease will formalise the current informal arrangement and provide clarity around roles, responsibilities, and permitted use of the site. This reduces legal and operational risk for both Council and the community organisation by ensuring appropriate insurance, maintenance expectations, and compliance with lease conditions.

9. CRITICAL DATES & IMPLEMENTATION

Subject to Council approval, lease negotiations will be finalised with the community organisation, with the lease to be prepared on standard terms. The lease will commence upon execution, and Council officers will coordinate implementation, including confirmation of mowing and maintenance responsibilities.

10. CONSULTATION

Internal consultation has occurred with Council's Open Space and Environment Department.

The lessee has been contacted to confirm their intention to enter into a lease, subject to Council's consideration. Lessee has expressed an interest in entering into a lease even given the challenges.

11. CONCLUSION

The leasing of Council land to community organisations enables the delivery of significant social, cultural, and recreational outcomes for the broader community. Formalising these lease arrangements will provide the community organisation with security of tenure, thereby supporting the responsible management, maintenance, and utilisation of the land and associated facilities.

12. ATTACHMENTS

1. Lease area [↓](#)



Leased area shown outlined in **YELLOW**

FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25

WEDNESDAY, 27 AUGUST 2025

SUBJECT:	REQUEST FOR NEW LEASE - MARYBOROUGH REGIONAL ARTS SOCIETY INC
DIRECTORATE:	ORGANISATIONAL SERVICES
RESPONSIBLE OFFICER:	DIRECTOR ORGANISATIONAL SERVICES
AUTHOR:	EXECUTIVE MANAGER CORPORATE SERVICES
LINK TO CORPORATE PLAN:	Focused Organisation and Leadership. Demonstrate good leadership, and effective and ethical decision-making to foster confidence within our community.

1. PURPOSE

This report seeks Council approval to enter into a new lease with the Maryborough Regional Arts Society Inc over part of Council-owned land on Wharf Street, Maryborough without undertaking a tender or auction, under Section 236(1)(b)(ii) of the *Local Government Regulation 2012* (the 'Regulation').

2. EXECUTIVE SUMMARY

In November 2024, Council resolved to offer a lease to the Maryborough Regional Arts Society Inc for the building known as the "Customs House" on the corner of Wharf and Richmond Streets in accordance with Council's standard community leasing policy.

While preliminary discussions have occurred, formal lease finalisation have not yet taken place. To progress the lease, Council is now required to formally resolve to dispose of an interest in the land, other than by tender or auction, in accordance with section 236(1)(b)(ii) of the Regulation, as the proposed lessee is a community organisation.

This report seeks Council approval to enable lease negotiations to proceed and formalise the arrangement.

3. OFFICER'S RECOMMENDATION

That Council:

1. Resolves to dispose of an interest in land to Maryborough Regional Arts Society Inc over part of the council-owned land located at Wharf Street, Maryborough, described as Lot 299 on RP225695, other than by tender or auction, in accordance with section 236(1)(b)(ii) of the *Local Government Regulation 2012*.

2. Delegates authority to the Chief Executive Officer, or their delegate, to negotiate, finalise, and execute the lease outlined in this report, on terms and conditions satisfactory to the Chief Executive Officer or their delegate, on behalf of Council.
3. Note that lease negotiations will include provisions for Council to retain responsibility for the maintenance and preservation of the building's heritage elements and any major treatment required to manage West Indian Termite outbreaks on the property.

4. BACKGROUND & PREVIOUS COUNCIL CONSIDERATION

The Maryborough Regional Arts Society Inc have been seeking a building to continue their organisation. At the Ordinary Meeting held on the 20 November 2024, Council resolved to:

RESOLUTION (Paul Truscott/Phil Truscott)

1. *That Council offer a lease of the building known as the Customs House on the Corner of Wharf and Richmond Streets to the Maryborough Regional Art Society in accordance with Council's standard community leasing policy.*
2. *That the offer of lease also take account of the extraordinary costs of operating a heritage building of this nature and exclude major maintenance and capital costs such as any major treatment required to manage West Indian Termites outbreaks.*

Carried (7/3)

5. PROPOSAL

Following several discussions with the organisation, Council is now able to enter into a new lease with the Maryborough Regional Arts Society Inc over the building 'Customs House' as per Attachment 1.

This report provides the authority to dispose of the land and building through a lease to the Maryborough Regional Arts Society Inc. The lease will include provisions for Council to retain responsibility for the maintenance and preservation of the building's major heritage elements.

6. FINANCIAL & RESOURCE IMPLICATIONS

In alignment with the Fraser Coast Regional Council Land/Lease Assistance for Not-for-Profit Incorporated Community Groups (Sport, Recreation, Arts and Culture and Community) Policy, costs associated with the preparation and finalisation of the leases are the responsibility of the respective Lessees. These costs may include but are not limited to, legal, surveying and registration fees. All groups are aware of these costs and that the lease fee applied for community group leases under this policy for rent, is \$1 per annum.

7. POLICY & LEGAL IMPLICATIONS

In accordance with Council's Land/Lease Assistance for Not-for-Profit Incorporated Community Groups Policy, adopted on 20 January 2016, the standard lease term for community leases of this nature is ten (10) years.

Local Government Act 2009.

Local Government Regulation 2012:

- Section 227 – Requirement for tender or auction
- Section 236(1)(b)(ii) – Exemption for community organisation.

A resolution of Council is required to apply the exemption under Section 236.

8. RISK IMPLICATIONS

Heritage Maintenance and Preservation: Formally known as the Custom House, the building is a declared heritage site and has very strict requirements around maintenance and what can be changed in the building. There is a risk that the community group would not be able to fund these significant requirements.

To mitigate this, the lease will include a provision that Council, as the landlord, will take on responsibility for the maintenance and preservation of heritage elements.

Termite Control: The surrounding area is prone to Western Indian Termite outbreaks and there is a risk that the group may not have the funds to detect or treat an infestation, compromising the integrity of the building.

To mitigate this risk, the lease will include a provision that Council, as the landlord, is responsible for any major treatment required to manage West Indian Termite outbreaks on the property.

9. CRITICAL DATES & IMPLEMENTATION

Subject to Council approval, lease negotiations will be finalised with the community organisation, with the lease to be prepared on standard terms. The lease will commence upon execution.

10. CONSULTATION

Internal consultation has occurred with Councillors and senior management.

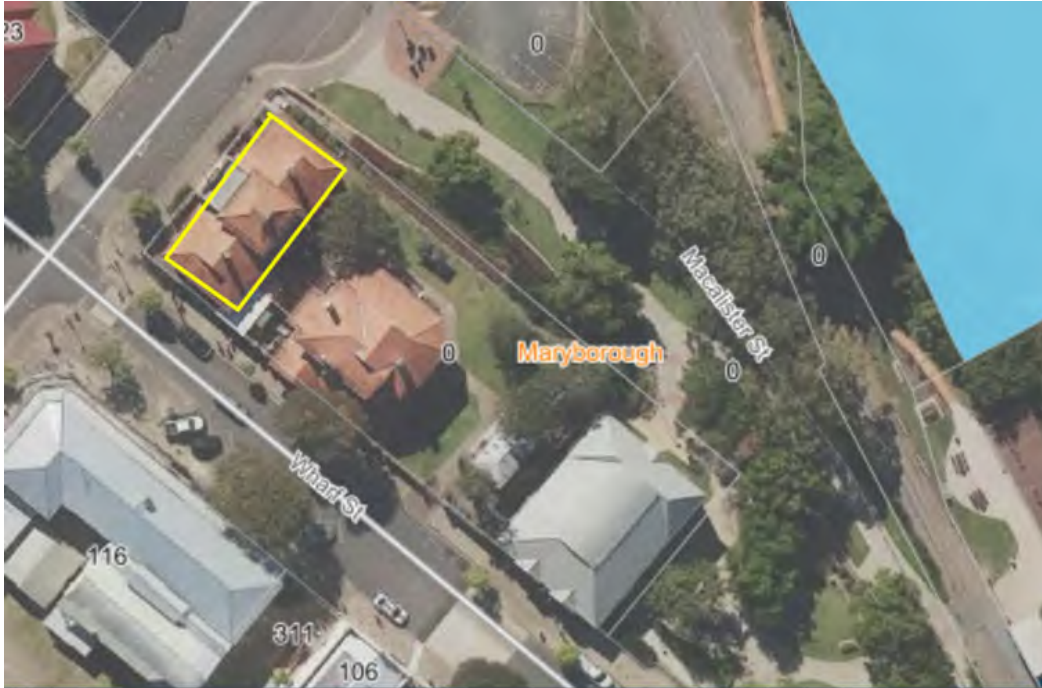
The lessee has been contacted to confirm their intention to enter into a lease, subject to Council's consideration.

11. CONCLUSION

The leasing of Council land to community organisations enables the delivery of significant social, cultural, and recreational outcomes for the broader community. Formalising the lease arrangement will provide the organisation with security of tenure, thereby supporting the responsible management, maintenance, and utilisation of the land and associated facilities.

12. ATTACHMENTS

1. Leased Area [↓](#)



Leased area shown outlined in **YELLOW**

FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25

WEDNESDAY, 27 AUGUST 2025

SUBJECT:	REQUEST FOR NEW LEASE - UNITED WARRIOR FOOTBALL CLUB INC
DIRECTORATE:	ORGANISATIONAL SERVICES
RESPONSIBLE OFFICER:	DIRECTOR ORGANISATIONAL SERVICES
AUTHOR:	EXECUTIVE MANAGER CORPORATE SERVICES
LINK TO CORPORATE PLAN:	Focused Organisation and Leadership. Demonstrate good leadership, and effective and ethical decision-making to foster confidence within our community.

1. PURPOSE

This report seeks Council approval to enter into a new lease with the United Warriors Football Club Inc over part of Council owned land on Bideford Street, Hervey Bay, without undertaking a tender or auction, under Section 236(1)(b)(ii) of the *Local Government Regulation 2012* (the 'Regulation').

2. EXECUTIVE SUMMARY

This report seeks Council's resolution to approve an exception under Section 236 of the Regulation, allowing the disposal of a valuable non-current asset other than by tender or auction, through the granting of a lease to a community organisation.

This report proposes that Council enter into a lease with United Warriors Football Club Inc for part of the land located on Bideford Street. Formal tenure will enable the group to continue using the site and access grant funding opportunities, which are currently unavailable to them due to not being the leaseholder.

Football Queensland is the existing leaseholder and has historically accessed the site during wet weather closures at their primary field. The site has otherwise been occupied and maintained by United Warriors Football Club Inc under a Memorandum of Understanding with Football Queensland. While Football Queensland has expressed a preference to remain as the leaseholder, this report recommends granting a lease to United Warriors Football Club Inc to reflect their ongoing use and operational needs.

The report also proposes that a suitable arrangement be identified to facilitate continued access to the site by Football Queensland where appropriate, and where use of their primary field. fields is not available.

3. OFFICER'S RECOMMENDATION

That Council:

1. Resolves to dispose of an interest in land to United Warriors Football Club Inc over part of council-controlled land located at Bideford Street, Hervey Bay, described as Lot 4 on RP35214 (lease H) and Lot 1 on RP35214 (lease J), other than by tender or auction, in accordance with section 236(1)(b)(ii) of the *Local Government Regulation 2012*.
2. Delegates authority to the Chief Executive Officer, or their delegate, to negotiate, finalise, and execute the lease outlined in this report, on terms and conditions satisfactory to the Chief Executive Officer or their delegate, on behalf of Council.
3. Supports identifying a suitable arrangement to facilitate access to the leased site by Football Queensland, where appropriate, and where use of the Sports Precinct fields is not available.

4. BACKGROUND & PREVIOUS COUNCIL CONSIDERATION

Football Queensland currently holds the lease over this parcel of land (Attachment 1) and since the move to the Sports Precinct as the primary grounds, Football Queensland have utilised the grounds as the backup fields when the Sports Precinct fields are closed due to wet weather. Football Queensland has delegated the operational responsibility for the land to the United Warriors Football Club under a Memorandum of Understanding.

Warriors United Football Club use the grounds as their home ground and training facility for their approximately 350 players from 5 years through to over 60, with a supporter base of an estimated 2000 people.

Both Football Queensland and Warriors United Football Club have expressed interest in a formal lease with Council over the parcel of land.

Football Queensland

Football Queensland use the Sports Precinct as their primary grounds. There is a difference in the threshold at which the fields at the Sports Precinct are closed, with Football Queensland being subject to more frequent closures due to wet weather. On such occasions, Football Queensland has historically accessed the Bideford Street field to ensure continuity of play.

Football Queensland would like to renew the lease to allow this arrangement to continue.

United Warriors Football Club

The grounds are used by United Warriors Football Club as their 'home' ground and use the facility for training and junior games. The lights at the grounds are old and do not have the lumen to support senior games without a significant upgrade.

The football club is responsible for all day-to-day operations and have plans to upgrade the facilities, including the lights, playing surface and change rooms. As the lease is with Football Queensland, all grant applications need to be submitted by the lessee, although they have been successful in several grants already. They are however having difficulty in obtaining funds from local companies due to not being the named leaseholder.

United Warriors Football Club have expressed interest in assuming the lease to enable them to apply for grant funding opportunities for which they are currently ineligible, due to not being the named leaseholder.

5. PROPOSAL

It is proposed that Council enter into a lease with United Warriors Football Club Inc.

Formal tenure will enable the organisation to apply for grant funding opportunities for which they are currently ineligible due to not being the leaseholder.

While the current lessee, Football Queensland, will not retain formal tenure over the site, Council supports identifying a suitable arrangement to facilitate access to the site, where appropriate, and where use of the Sports Precinct fields is not available.

6. FINANCIAL & RESOURCE IMPLICATIONS

In alignment with the Fraser Coast Regional Council Land/Lease Assistance for Not-for-Profit Incorporated Community Groups (Sport, Recreation, Arts and Culture and Community) Policy, costs associated with the preparation and finalisation of the leases are the responsibility of the respective Lessees. These costs may include but are not limited to, legal, surveying and registration fees. All groups are aware of these costs and that the lease fee applied for community group leases under this policy for rent, is \$1 per annum.

7. POLICY & LEGAL IMPLICATIONS

Local Government Regulation 2012

Local Government Regulation 2012, Section 236 (1) (b) (ii), (2) and (4), permits Council to dispose of an interest in land (a valuable non-current asset) to a community organisation without inviting tenders or conducting an auction provided approval is granted via a Council resolution.

The proposed new lessee, United Warriors Football Club Inc, is a registered community organisation (org. number: IA35222).

Land/Lease Assistance for Not-for-Profit Incorporated Community Groups Policy

In accordance with Council's Land/Lease Assistance for Not-for-Profit Incorporated Community Groups Policy, adopted on 20 January 2016, the standard lease term for community leases of this nature is ten (10) years.

United Warriors Football Club Inc is incorporated and if a new lease is approved, will be required to comply with the governance requirements of the Fraser Coast Regional Council Land/Lease Assistance for Not-for-Profit Incorporated Community Groups (Sport, Recreation, Arts and Culture and Community) Policy and submitted its Certificate of Incorporation, Certificate of Currency, and independently audited financial statements.

8. RISK IMPLICATIONS

There is a potential risk of field access conflicts during wet weather closures, as Football Queensland will no longer hold formal tenure over the site. This risk is mitigated by Council's support for identifying a suitable access arrangement in consultation with the leaseholder, maintaining flexibility and collaboration between the two groups.

9. CRITICAL DATES & IMPLEMENTATION

Subject to Council approval, lease negotiations will be finalised with the community organisation, with the lease to be prepared on standard terms. The lease will commence upon execution.

10. CONSULTATION

Internal consultation has occurred with Councillors and senior management.

The lessee has been contacted to confirm their intention to enter into a lease, subject to Council's consideration. Lessee has expressed an interest in entering into a lease even given the challenges.

Football Queensland have also been contacted for comments.

11. CONCLUSION

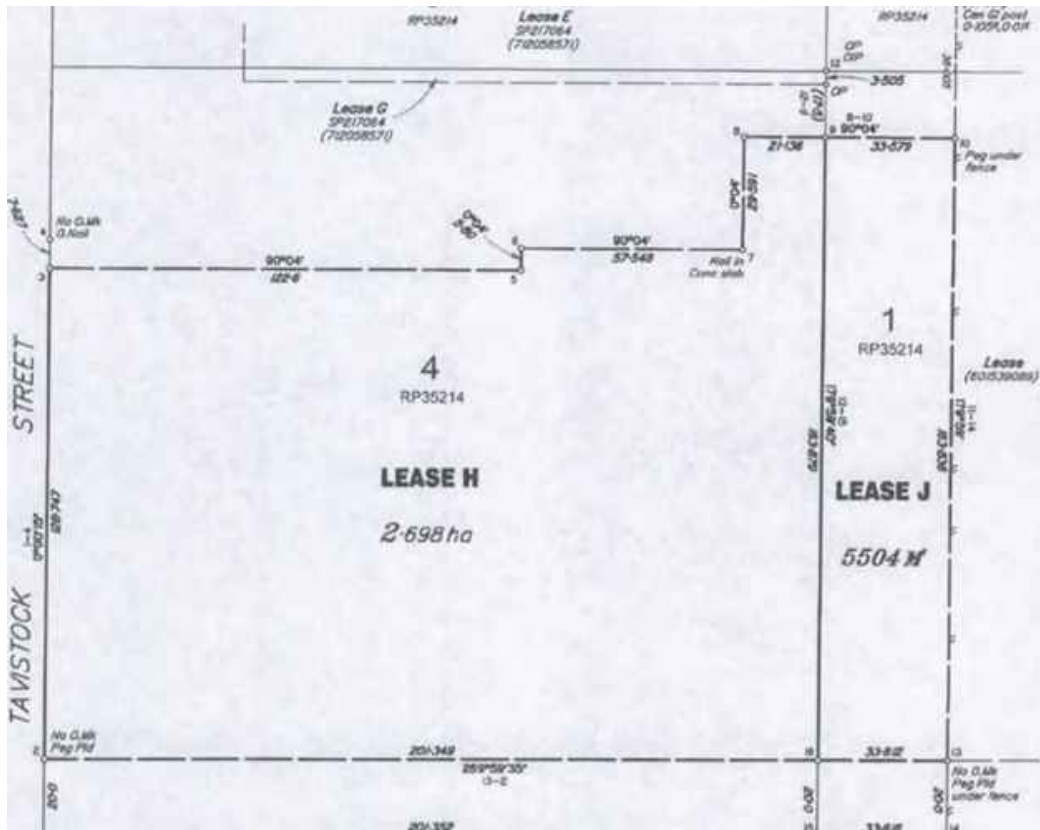
The leasing of Council land to community organisations enables the delivery of significant social, cultural, and recreational outcomes for the broader community. Formalising this lease arrangement will provide the organisation with security of tenure, thereby supporting the responsible management, maintenance, and utilisation of the land and associated facilities.

12. ATTACHMENTS

1. Lease Area [↓](#)



Leased area shown outlined in **YELLOW**



FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25

WEDNESDAY, 27 AUGUST 2025

SUBJECT:	REQUEST FOR NEW LEASE - ST JOHN AMBULANCE AUSTRALIA QUEENSLAND LIMITED, MARYBOROUGH
DIRECTORATE:	ORGANISATIONAL SERVICES
RESPONSIBLE OFFICER:	DIRECTOR ORGANISATIONAL SERVICES
AUTHOR:	LAND DEALING OFFICER
LINK TO CORPORATE PLAN:	Focused Organisation and Leadership. Demonstrate good leadership, and effective and ethical decision-making to foster confidence within our community.

1. PURPOSE

This report seeks Council approval to enter into a new lease with St John Ambulance Australia Queensland Limited (St John's) over Council controlled land, without undertaking a tender or auction, under Section 236(1)(b)(ii) of the *Local Government Regulation 2012* (the 'Regulation').

2. EXECUTIVE SUMMARY

This report seeks Council's approval to enter into a new lease agreement with St John Ambulance Australia Queensland Limited over land located at Queens Street, Maryborough, described as Lot 54 on M20190, shown outlined in yellow in *Attachment 1*.

St John's has occupied the adjoining land, described as Lot 55 on M20190, under a lease agreement with Council since 1997. St Johns has outgrown its existing facility and is seeking to expand its operations onto the adjacent parcel.

The proposed lease will allow St John's to construct a purpose-built secure parking area for its fleet vehicles. It is recommended that Council finalise the lease without undertaking a tender or auction process by relying on the relevant exemption provisions available under the *Local Government Regulation 2012*.

3. OFFICER'S RECOMMENDATION

That Council:

1. Resolves to dispose of an interest in land to St John Ambulance Australia Queensland Limited for the land located at Queen Street, Maryborough, described as Lot 54 on M20190, other than by tender or auction, in accordance with section 236(1)(b)(ii) of the *Local Government Regulation 2012*.
-

2. Delegates authority to the Chief Executive Officer, or their delegate, to negotiate, finalise, and execute the lease outlined in this report, on terms and conditions satisfactory to the Chief Executive Officer or their delegate, on behalf of Council.

4. BACKGROUND & PREVIOUS COUNCIL CONSIDERATION

Council provides tenure to eligible community groups through its community leasing framework to enable the delivery of government, social, recreational, cultural and environmental outcomes. A lease agreement will allow for St John's to invest in their operations while contributing to local wellbeing and community activation.

Under Section 227 of the *Local Government Regulation 2012*, a local government cannot dispose of a valuable non-current asset without first inviting written tenders or offering the non-current asset for sale by auction. However, this Section is subject to an exemption under Section 236(1)(b) which applies where the disposal is to either a "government agency" or a "community organisation."

5. PROPOSAL

It is proposed that Council approve the new lease to St John Ambulance Australia Queensland Limited in accordance with the Regulation.

Offering a new lease will provide St John's with security of tenure and support the continued delivery of valuable community and operational services. The terms and conditions of the lease are to be negotiated and finalised to the satisfaction of the Chief Executive Officer or delegate, with authority granted for the execution of the lease accordingly.

6. FINANCIAL & RESOURCE IMPLICATIONS

In alignment with the Fraser Coast Regional Council Land/Lease Assistance for Not-for-Profit Incorporated Community Groups (Sport, Recreation, Arts and Culture and Community) Policy, costs associated with the preparation and finalisation of the leases are the responsibility of St Johns. These costs may include but are not limited to, legal, surveying and registration fees. St John's is aware of these costs and that the lease fee applied for community group leases under this policy for rent, is \$1 per annum.

7. POLICY & LEGAL IMPLICATIONS

In accordance with Council's Land/Lease Assistance for Not-for-Profit Incorporated Community Groups Policy, adopted on 20 January 2016, the standard lease term for community leases of this nature is ten (10) years.

Local Government Act 2009.

Local Government Regulation 2012:

- Section 227 – Requirement for tender or auction.
- Section 236(1)(b) – Exemption for government agency or a community organisation.

A resolution of Council is required to apply the exemption under Section 236.

8. RISK IMPLICATIONS

Nil

9. CRITICAL DATES & IMPLEMENTATION

The lease should be formalised to ensure security of tenure and support the continued delivery of valuable community and operational services.

10. CONSULTATION

Consultation has occurred with internal stakeholders, leasing officers, and St John's, and no objection to a new lease is raised.

11. CONCLUSION

The leasing of Council-managed land to community organisations enables the delivery of significant social, cultural, and recreational outcomes for the broader community. Formalising a lease agreement will provide St John's with security of tenure, thereby supporting the responsible management, maintenance, and utilisation of the land and associated facilities.

12. ATTACHMENTS

1. [Locality Map](#) 

**ATTACHMENT 1
LOCALITY MAP**

Queens Street, Maryborough
Lot 54 M20190 – outlined in **yellow** – request for new lease
Lot 55 M20190 – outlined in **red** – existing lease



**FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25**

WEDNESDAY, 27 AUGUST 2025

SUBJECT:	REQUEST FOR COUNCIL DECISION ON THE APPROVAL OF MOBILE FOOD VENDING IN COUNCIL CONTROLLED AREAS ON K’GARI
DIRECTORATE:	STRATEGY, COMMUNITY & DEVELOPMENT
RESPONSIBLE OFFICER:	DIRECTOR STRATEGY, COMMUNITY & DEVELOPMENT
AUTHOR:	MANAGER PUBLIC HEALTH
LINK TO CORPORATE PLAN:	Resilient and Environmentally Responsible Region. Manage our activities in a way that reduces our environmental footprint.

1. PURPOSE

The purpose of this report is to seek Council's formal position regarding the issuance of Commercial Use of Local Government Controlled Areas and Roads Approvals for mobile food vending and roadside vending activities on K’gari, including within its townships. This includes applications from individuals or businesses seeking to operate from Council-controlled land and roads.

2. EXECUTIVE SUMMARY

Under Local Law No. 1 (Administration) 2011, approval is required for commercial use of Council-controlled areas and roads, including mobile food and roadside vending.

Council has received numerous enquiries over time to undertake such activities on K’gari. In most instances, proposed sites were located on State-controlled land, with applications subsequently refused by the Department of Parks and Wildlife under their own management policies.

A recent application proposes mobile food vending solely within the Orchid Beach township, an area not under State jurisdiction. This means Council is required to assess the application under its own Local Law and policies.

However, given the sensitive environmental setting, cultural and historical significance of K’gari, potential impacts on existing businesses, and the non-exclusive nature of public land use, it is not considered appropriate to approve mobile food or roadside vending activities in this context.

This report seeks to formalise Council’s position on the matter to ensure consistency in future decision-making.

3. OFFICER'S RECOMMENDATION

That Council:

1. Adopt a formal position that it is not appropriate to issue approvals under Fraser Coast Regional Council Local Law No. 1 (Administration) 2011 for mobile food vending or roadside vending activities on K'gari, including within its townships, due to the sensitive environmental, cultural, and community context of the island.
2. Endorse a review of Local Law No. 1 (Administration) 2011 and Local Law No. 4 (Local Government Controlled Areas, Facilities and Roads) 2011 to consider amendments that formally reflect Council's position on commercial vending activities on K'gari and provide greater clarity for applicants, stakeholders, and the community.
3. Advise the applicant of Council's position and ensure this position is consistently applied to any future applications for commercial use of Council-controlled areas and roads on K'gari.

4. BACKGROUND & PREVIOUS COUNCIL CONSIDERATION

Council has received numerous enquiries and applications over the years from individuals wishing to operate mobile food vehicles and similar businesses on K'gari. These proposals typically involved the use of beaches or areas within the National Park or on State-controlled land.

As the State Government has consistently refused consent for such activities, Council has not approved any of these applications.

However, recently Council received an application to operate a mobile food vehicle on a Council-controlled road reserve within Orchid Beach township. The proposal involves parking the van on a nature strip in Eliza Avenue and operating daily from 4:00am to 4:00pm, selling coffee and offering a breakfast/lunch menu.

The applicant was initially referred to the State Government, which has since confirmed that the proposed location falls under Council's jurisdiction and that it holds no objection. This has been confirmed in writing.

The applicant has now formally lodged a Commercial Use of Local Government Controlled Areas and Roads application. Under Local Law No. 1 (Administration) 2011, Council can only grant an approval if satisfied that a range of criteria are met. These include, but are not limited to:

- Holding all necessary approvals or licences;
- Protecting public health, safety, and amenity;
- Avoiding environmental harm;
- Suitability of the proposed location;
- Minimising nuisance or inconvenience to others;
- Impacts on traffic, pedestrians, and surrounding amenity;
- Proximity to existing businesses;
- Ensuring public access is not unreasonably restricted.

Council's Infrastructure Services team has assessed the proposal and raised concerns about customer parking and traffic flow. The site is within a 20km/h shared zone, and parking on the nature strip is generally restricted under Local Law No. 4, unless specifically authorised through an approval. Infrastructure Services has advised that the application may be supported if these issues are appropriately addressed.

Engaging meaningfully with Traditional Owners, local businesses, environmental groups, and the broader community is essential to maintain transparency and trust.

A written objection has been received from the operator of an existing fixed business, and further objections may be raised by other operators or community members once aware of the proposal. However, Local Law No. 1 does not require public consultation or allow formal submissions in response to applications.

As part of the assessment process, consultation was undertaken with representatives of the Butchulla Aboriginal Corporation. While a formal written response has not yet been received, the Corporation has verbally expressed opposition to the proposal.

It is also important to note that approvals for mobile or roadside vending do not grant exclusive use of the location. Multiple vendors may operate from the same site, provided it is deemed suitable. Approval conditions typically include:

- Non-exclusive use of the site;
- A requirement for operators to resolve conflicts cooperatively;
- Council's ability to impose restrictions or revoke approvals if issues arise or community needs change.

5. PROPOSAL

Council formally consider the appropriateness of issuing Commercial Use of Local Government Controlled Areas and Roads Approvals for mobile food vending or roadside vending activities on K'gari.

To date, Council has not issued any approvals authorising mobile food vending or roadside vending on K'gari, primarily because these activities have historically involved State-controlled land, with the State consistently refusing consent.

The current application under assessment relates to land under Council's control within Orchid Beach township.

Additionally, Council has received a written objection from the operator of an existing fixed business. Although the Local Law does not provide for public submissions against such applications, these concerns have been noted.

If it is Council's decision to not approve this application it will be consistent with previous practice, where applications were not supported due to lack of State consent on utilisation of State controlled land and acknowledges that the current application—although located on Council-controlled land—raises similar concerns relating to amenity, cultural significance, and the impact on existing businesses

This position will ensure consistency, respect cultural values, and maintain the unique character and amenity of K'gari's townships and natural areas.

6. FINANCIAL & RESOURCE IMPLICATIONS

Should Council choose to support commercial use of roads and public areas on K'gari, there may be increased costs associated with the administration, monitoring, and enforcement of these activities. The regulation of mobile vending is inherently resource-intensive, and these challenges are compounded by the remoteness and limited accessibility of K'gari.

Additional operational resources may be required to ensure compliance with approval conditions, manage complaints, and respond to emerging issues, which could place further strain on existing staff and budgets.

7. POLICY & LEGAL IMPLICATIONS

Applications are considered under the authority of the Fraser Coast Regional Council Local Law No. 1 (Administration) 2011 and the Local Government Act 2009 (Qld). Any position or amendments arising from this report will need to be consistent with these legislative frameworks to ensure lawful and effective regulation of commercial activities on Council-controlled areas and roads.

Should Council resolve to formalise a position restricting mobile food and roadside vending on K'gari, corresponding updates to Council's local laws and policies will be required to reflect and enforce this approach.

8. RISK IMPLICATIONS

Economic Risk:

The presence of mobile food vending activities may impact existing fixed businesses on K'gari by introducing additional competition.

Environmental Risk:

Mobile vending activities carry the risk of environmental harm, including pollution, waste management challenges, and damage to sensitive natural areas on K'gari.

Reputation Risk:

Council's reputation is at risk if decisions regarding mobile vending on K'gari are perceived as inconsistent with community values, cultural sensitivities, or environmental stewardship. Clear communication of Council's position and decisions will help uphold public confidence.

Compliance and Governance Risk:

Regulating mobile food vending activities on K'gari poses challenges due to the island's remoteness and limited resourcing, which may hinder effective enforcement and compliance monitoring. This increases the risk of non-compliance with Local Laws and Council policies.

9. CRITICAL DATES & IMPLEMENTATION

Council has a current Application to decide. There is no legislative timeframe under Local Law No.1 for this, however Council will need to justify the timeframe where this is protracted.

10. CONSULTATION

Informal external consultation has occurred with;

- The Department of Parks and Wildlife
- Butchulla Aboriginal Corporation

Internal Consultation has occurred with;

- Infrastructure Services
- Community Rangers

11. CONCLUSION

A formal Council position is sought in relation to permitting persons to undertake activities commensurate with the commercial use of local government controlled areas and roads on K'gari under an approval issued by Council under Local Law No. 1.

12. ATTACHMENTS

1. Aerial Map- Proposed Site [↓](#)
2. Photos of proposed Food Trailer [↓](#)





FRASER COAST REGIONAL COUNCIL
ORDINARY MEETING NO. 8/25

WEDNESDAY, 27 AUGUST 2025

SUBJECT:	TOOAN TOOAN CREEK AND LOWLANDS LAGOON COASTAL AND FLOOD RISK MANAGEMENT STUDY
DIRECTORATE:	STRATEGY, COMMUNITY & DEVELOPMENT
RESPONSIBLE OFFICER:	DIRECTOR STRATEGY, COMMUNITY & DEVELOPMENT
AUTHOR:	MANAGER STRATEGIC LAND USE PLANNING
LINK TO CORPORATE PLAN:	Connected, Inclusive Communities and Spaces. Shape the region's natural and built environment to enhance the liveability of our communities and regional lifestyle.

1. PURPOSE

The purpose of this report is to seek Council endorsement of the Tooan Tooan Creek and Lowlands Lagoon Coastal and Flood Risk Management Study and Plan.

2. EXECUTIVE SUMMARY

The Tooan Tooan Creek and Lowlands Lagoon catchment area has been identified as being at risk of high and extreme flooding and coastal inundation (including permanent inundation from sea level rise), which have the potential to have significant impacts on people, property, infrastructure and the environment if not appropriately managed. The area is highly urbanised and a greater level of development is both permitted and encouraged by the current planning framework.

The primary objectives of the Tooan Tooan Creek and Lowlands Lagoon Coastal and Flood Risk Management Study and Plan was to understand the current and future flood risk across the study area and develop an integrated and coordinated plan to manage this risk with a goal to improve how we prepare for, respond to and recover from coastal and flood events. These objectives align with best practice national and state policy for disaster risk reduction.

The Tooan Tooan and Lowlands Lagoon Flood and Coastal Inundation Risk Management Study and Plan contain the most comprehensive assessment of flood risk and response options undertaken for a catchment in the Fraser Coast Region to date.

3. OFFICER'S RECOMMENDATION

That Council:

1. Endorse the Tooan Tooan Creek and Lowlands Lagoon Coastal Flood Risk Management Study (Attachment 1- #4985895) as a guiding document for flood risk mitigation and management.

2. Endorse the Draft Toonan Toonan Creek and Lowlands Lagoon Coastal Flood Risk Management Plan (Attachment 2 - #5177167) as a guiding document for flood risk mitigation and management.
3. Approve the public release of the Toonan Toonan Creek and Lowlands Lagoon Coastal Flood Risk Management Study and Plan (Attachment 1 and Attachment 2).

4. BACKGROUND & PREVIOUS COUNCIL CONSIDERATION

The study area incorporates the coastal suburbs of Urraween, Pialba, Scarness and Torquay. The catchment is heavily urbanised, comprising residential, commercial and industrial uses.

The study area is identified in Figure 1 below and covers both the Toonan Toonan Creek catchment (western portion of the catchment) and Lowlands Lagoon catchment (eastern portion of the catchment). While separate catchments, there is some interaction via the stormwater network and series of constructed lakes. The Toonan Toonan Creek and Lowland Lagoon catchments are low-lying and subject to both coastal inundation, waterway inundation and stormwater flooding.

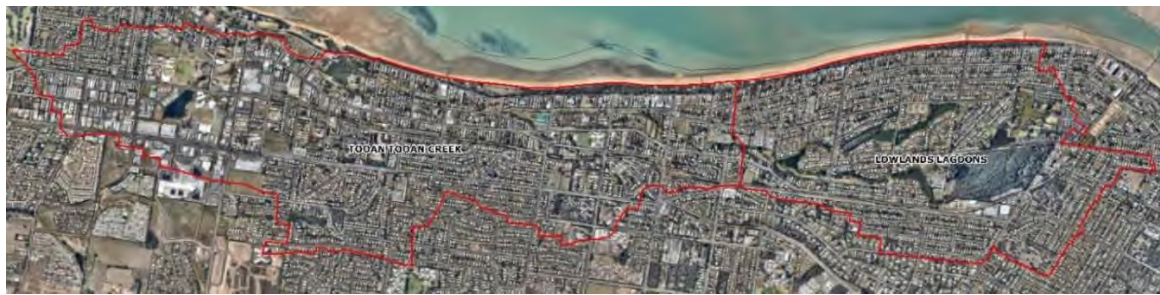


Figure 1 - Toonan Toonan and Lowland Lagoons Study Area

Previous coastal, flood and drainage studies have identified that the catchment area is at risk of high and extreme flooding and coastal inundation (including permanent inundation) including:

- Coastal Futures: Planning Our Changing Coastline, 2021;
- Toonan Toonan Creek Catchment Analysis (including Lowlands Lagoon) - Flood Risk Final Report, 2018;
- State Planning Policy, Storm Tide Inundation area, 2017;
- Toonan Toonan Creek Catchment (Taylor and Hunter Street sub-catchments) Flood Risk Reduction Study, JWP, 2006; and
- Lowland Lagoons Catchment Drainage Study, Cardno, 2003.

Some properties in the catchment are particularly susceptible to localised nuisance flooding associated with high tides and rain events. Council regularly receives requests for drainage improvements but in most cases the remedy to customers' concerns relies on large capital projects being delivered before local drainage issues can be addressed. These complaints were considered by Council on several occasions, and the current 10-Year Capital Works program contains numerous entries for the catchment area, including kerb and channel, local road drainage, trunk pipe network, beach outlet and rock groyne upgrade projects.

In October 2020, the Toonan Toonan Flood and Coastal Risk Management Study project to investigate management options was endorsed to address the identified coastal and flood risk. Unlike previous mitigation investigations, this study sought to take a holistic approach to management options across the whole catchment rather than just focussing on discreet infrastructure mitigation options for specific "hot spots" in the catchment.

In February 2022 Council engaged specialist water and coastal consultants, Water Technology, to undertake the study. The study was completed in March 2024 with the key deliverables being:

- the *Tooan Tooan Flood and Coastal Risk Management Study report* contained in Attachment 1;
- supporting mapping files; and
- the *Tooan Tooan and Lowlands Lagoon Flood Study Update report* and data outputs (previously adopted by Council on 26 February 2025 as part of the Temporary Local Planning Instrument 01/24 – Flood Hazard Area).

The Council adopted Temporary Local Planning Instrument (TLPI) 01/24- Flood Hazard Area included updates to the Flood Hazard Area in the Tooan Tooan and Lowland Lagoon catchment.

On 9 March 2025 a significant rain event resulted in extensive flooding throughout the Tooan Tooan and Lowlands Lagoon catchment area. This event demonstrated the significant impacts flooding in this catchment can have on people, property, infrastructure and the environment.

Flood Risk Management Framework

Council continues to work towards maturing its approach to flood risk management. This approach is informed by the *Queensland Flood Risk Management Framework* which sets the direction for flood risk management statewide, outlines roles and responsibilities, and guides and supports decision making by councils.

Flood risk management in Queensland is guided by the Flood Risk Management Framework (QRA, 2021). The Framework is aligned with State and National guidance. This Framework applies to managing floods resulting from:

- catchment flooding, including rivers and other watercourses, overland flow paths and groundwater systems because of prolonged or intense rainfall; and
- coastal flooding due to tidal or storm-driven coastal events, including storm surge in lower coastal waterways (excluding tsunamis).

Flood risk management requires a multi-disciplinary, coordinated approach to be successful. The goal is for sustainable practices that improve community resilience and provide long-term benefits to the built and natural landscapes.

Flood risk management involves the full spectrum of stakeholders, from communities and private industry, to local, state and national governments and non-government organisations. It includes arrangements about managing the potential adverse effects of floods - for example, arrangements for mitigating, preventing, preparing for, responding to and recovering from a disaster.

It involves consideration of the full range of management options, as shown in Figure 2 below, including the best use of land, design of built form, land and water management practices, as well as disaster management, community resilience and response management, and structural mitigation.

Figure 2 - Flood Risk Management Framework



The methodology applied to the Toan Toan Creek and Lowlands Lagoon Coastal and Flood Risk Management Study and Plan is aligned with the *Australian Institute of Disaster Resilience (AIDR) Handbook 7 - Managing the Floodplain: a guide to best practice in flood risk management in Australia* (AIDR, 2017), *Queensland Flood Risk Management Framework* (QRA, 2021), *Queensland Emergency Risk Management Framework* (QFES, 2017) and *Risk Management Standard ISO31000:2018*.

The flood risk management process, as presented in Figure 3, involves the following key steps:

1. collecting the necessary data;
2. defining the flood hazard;
3. assessing the risk, considering options to manage the risk to acceptable levels; and
4. developing an implementation plan to manage the risk.



Figure 3 – Toan Toan and Lowlands Lagoon Coastal and Flood Inundation Risk Management process

5. PROPOSAL

The Flood Risk Management Study contained in Attachment 1 informs Council about the inundation risk in the Tooan Tooan and Lowlands Lagoon and assesses how to best mitigate and manage that risk to people and property.

The Study included the following key items:

- Modelling of flood behaviour including both catchment and coastal dominated events, assessment of hydraulic hazard and flood function;
- Identification of existing and future flood risk including an assessment of land use and building exposure, community vulnerability, isolation, time to and duration of inundation across the catchment;
- Economic assessment of flood risk;
- Assessment of future development impact on flood risk; and
- Identification and assessment of a suite of flood risk management options.

The Flood Risk Management Study investigated a suite of flood risk management and mitigation options including structural engineering, landscape management, community awareness and resilience, resilient property measures, emergency management and land use planning options. The study recommendations on management and mitigation options have been further investigated by Council Officers and subsequently used to prepare the Flood Risk Management Plan contained in Attachment 2.

Recommendation 1 of this report seeks endorsement of the Flood Risk Management Study and will allow Council to utilise the results and recommendations to assist in mitigating and managing the inundation hazard and risk in the catchment. The Flood Risk Management Study will provide the evidence required to guide development in the catchment, ensuring that people and property are not being put at unacceptable risk.

Recommendation 2 of the report seeks Council endorsement of the Flood Risk Management Plan for the catchment (Attachment 2). The Flood Risk Management provides an evidence-based list of mitigation options.

Endorsement of the Study and the Plan ensures that the documents can:

- provide the community and development industry with an understanding of the flood risk and the available options to mitigate and manage the risk;
- be considered extrinsic material to the planning scheme, which could potentially be given weight for development assessment;
- be used to support future grant applications; and
- be used to inform prioritisation and budgeting for future Council projects including implementation of the management actions identified in the Plan.

Recommendation 3 of this report proposes to release the Study and Plan to the public to provide awareness of the hazard and risk, and ways in which it can be mitigated. Further work will be required to ensure the community is educated and aware of the implications of the study findings, which is identified as a high priority action in the Flood Risk Management Plan (Attachment 2).

6. FINANCIAL & RESOURCE IMPLICATIONS

No additional budget is sought to endorse the Tooan Tooan Creek and Lowlands Lagoon Flood Risk Management Study and Plan. However, future budget will be required for implementation of management options identified in the Plan. Endorsement of the Risk Management Study and Plan is not the end point of the process. It provides Council with a resource which will be utilised to make decisions about how to coordinate and prioritise mitigation of identified risks in the catchment. These decisions will be influenced by factors such as:

- When the measure can be implemented;
- What resources are required to implement the measure;
- What constraints may need to be addressed prior to implementing the measure (or may prevent implementing the measure);
- How to address the identified constraints; and
- How effective the measures are likely to be.

Each management option identified in the Plan will need to be further investigated and scoped before implementation timeframes and project delivery lead are confirmed. Implementation of all management options must be considered in the context of Council's broader program of works for Coastal and Flood Risk management, which includes catchments across the whole Fraser Coast region.

In general, measures which are readily implemented for a low cost will be prioritised, however Council must also consider the measures which are likely to improve personal safety for the greatest number of residents.

An implementation plan will need to be developed, detailing the required actions, responsibilities, estimated costs for each of the recommended measures. Council's Strategy and Sustainability Department will be the lead on development of an implementation plan.

7. POLICY & LEGAL IMPLICATIONS

The methodology applied to the Tooan Tooan Creek and Lowlands Lagoon Coastal and Flood Risk Management Study and Plan is aligned with the Australian Institute of Disaster Resilience (AIDR) Handbook 7 - Managing the Floodplain: a guide to best practice in flood risk management in Australia (AIDR, 2017), Queensland Flood Risk Management Framework (QRA, 2021), Queensland Emergency Risk Management Framework (QFES, 2017) and Risk Management Standard ISO31000:2018.

The Queensland Government's *State Planning Policy 2017 (SPP)* defines specific matters of state interest for land use planning and development. Council has an obligation to incorporate state interests into their planning scheme, one of those being the 'Natural hazards, risk and resilience' state interest. This state interest requires Council to apply a risk-based approach to the management of natural hazards and include the projected impacts of climate change, including flood and coastal inundation. Land use planning responses is ranked first in the list of management options identified in the Plan.

8. RISK IMPLICATIONS

The requirement for Councils to actively prepare and update flood studies, and to make flood mapping readily available to the public grew from the recommendations of the Queensland Floods Commission of Inquiry final report from 2012.

The Flood Risk Management Study is key in mitigating and management of inundation risk. Understanding exposure to flood and coastal inundation risks through publicly available information and mapping can reduce impacts on the community from future events.

The findings of the Study indicate intolerable levels of flood and coastal inundation risk in the Toonan Toonan Creek and Lowlands Lagoon catchment. Given Council's risk appetite, it is imperative Council commits to continuing work to appropriately manage the risk of flood and coastal inundation in the Toonan Toonan Creek and Lowlands Lagoon catchment.

A risk assessment has been conducted, and several risks have been identified.

Risk Category	Potential risks identified
Legal	Council does have a duty of care to properly consider the impacts of flooding in making a development decision. If Council has information from a flood study and fails to properly address the implications of that study at the development application stage, it may be found liable for damage caused by that failure. Therefore, the endorsement of the Study is pertinent to ensuring that applications in the catchment can be assessed on the best available information and reduce the risk to life from flood risks in those identified areas.
Reputation	While there is no specific legislative obligation for Council to proactively disclose emerging or new flood risk information to the public, outside the context of amending a planning scheme, it is prudent for Council to adopt the Study and Plan to avoid any potential liability in negligence or reputational risk arising from Councils failure to take reasonable steps of disclosure.
Disaster Management	Disaster management activities will be able to utilise a broad range of mapping resources provided by the Study. The more flood scenarios and parameters available, the better informed the response to an event can be. Failure to adopt the Study and Plan prevents community awareness and may hinder disaster management response in an event.
Financial	There is a risk in Council continuing to invest funds to investigate discreet and ad hoc structural/ infrastructure mitigation solutions without understanding the broader catchment context. The Study and Plan will assist Council to make resilience/mitigation and risk reduction investment decisions based on sound economic analysis which demonstrates a net benefit to the community.

9. CRITICAL DATES & IMPLEMENTATION

Timeframes for implementation of each management option are identified in the Plan. Once the Study and Plan are endorsed by Council more detailed implementation planning will need to occur to identify specific actions required to deliver on each management option.

10. CONSULTATION

This is a collaborative project delivered by the Strategy and Sustainability and Infrastructure Services teams (including disaster management).

The Plan has been developed in collaboration with Council's Flood Action Group made up of key Council technical officers with a role in flood and coastal management.

Councillors and the Executive Leadership Team were provided with a briefing on the project on 7 July 2025.

Recommendation 3 of this report proposes to release the Study and Plan to the public to provide awareness of the hazard and risk, and ways in which it can be mitigated. Further work will be required to ensure the community is educated and aware of the implications of the study findings, which is listed as a high priority action in the Flood Risk Management Plan (Attachment 2). It is anticipated that extensive region wide community engagement will be delivered in conjunction with the Planning Scheme amendment package for inundation risk (flood and coastal) scheduled for commencement in the 2026/27 financial year.

11. CONCLUSION

The Flood Risk Management Study and Plan define existing and future flood risk across the Toan Toan and Lowlands Lagoon catchment and provides an action plan to manage these risks. Endorsement of the Study and Plan will assist in improving how current and future residents in the area prepare for, respond to and recover from flood and coastal events.

12. ATTACHMENTS

1. Toan Toan Creek and Lowlands Lagoon Coastal and Flood Risk Management Study #4985895 [↓](#)
2. Draft Toan Toan and Lowlands Lagoon Catchment Flood Risk Management Plan #5177167 [↓](#)



Report

Toon Toon Creek and Lowlands Lagoon Coastal and Flood Risk Management Study

Fraser Coast Regional Council

15 March 2024



Document Status

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EXECUTIVE SUMMARY

The Tooan Tooan Creek and Lowlands Lagoon catchment area has been identified by Fraser Coast Regional Council as being at risk of high and extreme flooding and coastal inundation (including permanent inundation). Fraser Coast Regional Council has engaged Water Technology to complete the Flood Risk Management Study and Plan for Tooan Tooan Creek and Lowlands Lagoon. This Flood Risk Management Study and Plan aims to define existing and future flood risk across the study area and develop an action plan to manage these risks.

The Tooan Tooan and Lowlands Lagoon Flood Risk Management Study has been delivered in line with the Queensland Flood Risk Management Framework (QRA, 2019) and the Australian Institute of Disaster Resilience (AIDR) Handbook 7 - Managing the Floodplain: a guide to best practice in flood risk management in Australia (AIDR, 2017). The Flood Risk Management Study has included the following key items namely:

- Flood behaviour including both catchment and coastal dominated events, assessment of hydraulic hazard and flood function,
- Existing and future flood risk including an assessment of land use and building exposure, community vulnerability, isolation, time to and duration of inundation across the catchment,
- Economic assessment of flood risk,
- Assessment of future development impact on flood risk,
- Identification and assessment of a suite of flood risk management options.

The first phase of the Tooan Tooan Creek and Lowlands Lagoon Flood Risk Management Study included a high-level review and update of the adopted hydraulic model developed by Advisian in the Tooan Tooan Creek including Lowlands Lagoon Catchment Analysis – Flood Risk Study (Advisian, 2018). The updated flood study was finalised in early 2023 and is considered fit-for-purpose, providing a robust and comprehensive understanding of flood behaviour across the full range of flood events from the 50% AEP flood event to the Probable Maximum Flood event.

Details of this model update can be found in the corresponding *Tooan Tooan and Lowlands Lagoon Catchment Flood Model Update* (Water Technology, 2023). The model developed by Advisian used 2015 LiDAR for the study area this was retained in the Flood Study update. Since the model update, Fraser Coast Regional Council has received updated LiDAR information. It is recommended the model is updated and a sensitivity test is completed for the 1% AEP design event to understand the impact new LiDAR may have on flood behaviour.

Existing and Future Flood Risk

The study area is located in Hervey Bay and incorporates the coastal suburbs of Urraween, Pialba, Scarness and Torquay. The catchment is heavily urbanised, comprising residential, commercial and industrial precincts. The Esplanade in Pialba, Scarness and Torquay provides large portions of high value tourism including public spaces, the foreshore, visitor accommodation and tourist services. The areas of high density residential zoned land allow for building heights of up to 20 metres, which increases to 26 metres in the areas of tourism zoned land.

Residential zoned land is by far the most exposed land use in the study area. Approximately 51% of all residential lots in the study area are exposed to flooding in the 1% AEP Climate Change design flood event. Of these, almost half are exposed to high hydraulic hazards in this event. Approximately 3,500 residential buildings are within the floodplain equating approximately 8,000 people exposed to flood risk.

A large portion of these residential properties exposed are located north of Lowlands Lagoon and Tooan Tooan Creek. Flood risk in this area is increased due to this area being classified as a low flood island and trafficability of the road network from north to south has a low immunity.



Across the study area, there is a high physical vulnerability compared to the Queensland average. This is largely due to the older demographic in the Fraser Coast area. While other vulnerability metrics are comparable to the Queensland average, Fraser Coast Regional Council has noted that the Tooan Creek and Lowlands Lagoon catchment have not experienced a significant catchment dominated flood event or storm surge flood event. Subsequently, the community has low local knowledge of the flood risks. The area with the highest relative community vulnerability in the study area is in the north west corner of the study area and immediately along the coast. This area also has a high flood exposure and low road immunity.

Economic Impact

An economic assessment of current flood risk was completed to understand the cost of floods to the community. This economic assessment was completed in line with the Economic Assessment Framework of Flood Risk Management Projects (QRA, 2021). The total average annual damages for the study area is \$18.6 million. The 1% AEP design event was tested under a storm surge dominant event and also under a future climate scenario. This showed that the study area is economically very sensitive to both climate change and storm surge flooding.

Flood Risk Management Plan

The Tooan Tooan Creek and Lowlands Lagoon Coastal and Flood Risk Management Plan aims to identify floodplain management options to reduce and manage the flood risk across the study area. The study investigated a suite of flood risk management options including structural mitigation options, property modification, land use planning, community awareness and resilience, disaster management and landscape management practices.

The options considered were assessed through a detailed multi-criteria risk assessment based on the agreed criteria and through discussion with Council. The results of this assessment and the final adopted Flood Risk Management Plan is shown in Table E-1 below.

Table E 1 Flood Risk Management Plan

Management Option	Score	Rank	Priority (L-H)
LUP002: Complete a study to investigate risk based and climate adaptive land use responses to manage existing and future flood risk.	0.9	1	H
EM002: Flash Flood and Tidal Inundation Flood Intelligence System	0.82	2	H
EM001: Tooan Tooan Catchment and Storm Surge Evacuation Assessment	0.72	3.5	M
Resilient Property Measures: Voluntary House Purchase and Retrofitting	0.72	3.5	M
Community Awareness & Resilience	0.67	5	M
EM003: Upgrades to the Fraser Coast Disaster Dashboard	0.57	6	M
LUP001: Flood Hazard Overlay Updates	0.41	7	M
COM002: Bridge widening + Pialba Place drainage	0.37	8	L
Coastal Management: Coastal Processes Management Study	0.28	9	L
COM003: Bridge widening + Channel widening	-0.2	10	Not recommended for further investigation



Management Option	Score	Rank	Priority (L-H)
COM001: Bridge Widening + Channel widening + Main Street trunk drainage	-0.24	11	Not recommended for further investigation



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1 INTRODUCTION

1.1 Project Objectives

The Toan Toan Creek and Lowlands Lagoon catchment area has been identified by Council as being at risk of high and extreme flooding and coastal inundation (including permanent inundation), which have the potential to have significant impacts on people, property, infrastructure and the environment if not appropriately planned for and mitigated. The area is highly urbanised and a greater level of development is both permitted and encouraged by the current planning framework. This project is an opportunity to:

1. Provide a greater understanding of the behaviour of existing and future flood and coastal inundation within the catchment;
2. To understand the potential risk associated with flooding and coastal inundation including potential development constraints;
3. Investigate management options to help to reduce the impact of current and future flood and coastal inundation risk including financially feasible engineering solutions; and
4. Should it be required, provide an evidence base that justifies land use planning responses, protecting Council and ratepayers from the financial implications associated with adverse planning changes.

1.2 Toan Toan Creek catchment

The Toan Toan Creek and Lowlands Lagoon catchment is located in Hervey Bay within the Fraser Coast Regional Council local government area and incorporates the coastal suburbs of Urraween, Pialba, Scarness and Torquay.

The study area covers both the Toan Toan Creek catchment (western portion of the catchment) and Lowland Lagoons catchment (eastern portion of the catchment). While separate catchments, there is some interaction via the stormwater network and series of constructed lakes. The Toan Toan Creek and Lowlands Lagoon catchments are low-lying and subject to both coastal inundation, waterway inundation and stormwater flooding. The catchment areas of Toan Toan Creek and Lowlands Lagoon are 560 ha and 260 ha respectively.

The catchment is heavily urbanised, comprising residential, commercial and industrial precincts. The Esplanade in Pialba, Scarness and Torquay provides large portions of high value tourism including public spaces, the foreshore, visitor accommodation and tourist services.

The areas of high density residential zoned land allow for building heights of up to 20 metres, which increases to 26 metres in the areas of tourism zoned land. Current zoning identifies large portions of land that could be further utilised and developed. The study area is shown in Figure 1-1.

Behind the foreshore the residential areas of the catchment are characterised by a topography formed by historic sand dunes with east-west longitudinal rolling landform that is known to be susceptible to localised ponding of stormwater runoff and limited conveyance. This is particularly typical of the suburbs around the Toan Toan Creek and Lowlands Lagoon which include detached dwellings with a limited number of older, medium density units and small-scale townhouse developments.



Figure 1-1 Toon Toon and Lowlands Lagoon Study Area



2 FLOOD RISK MANAGEMENT POLICY

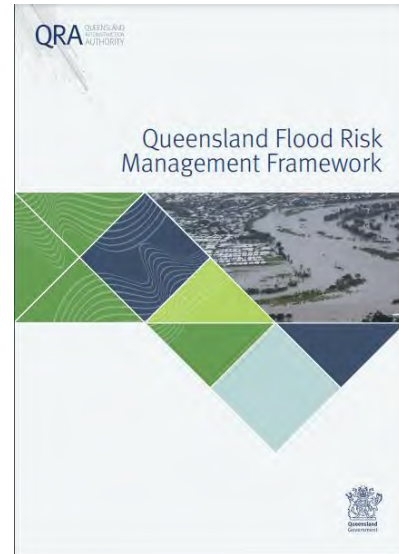
2.1 Queensland Flood Risk Management Framework

Flood risk management in Queensland is guided by the Flood Risk Management Framework (QRA, 2021). The Framework is aligned with State and National guidance, including:

- Australian Institute of Disaster Resilience (AIDR) Handbook 7 - Managing the Floodplain: a guide to best practice in flood risk management in Australia;
- Strategic Policy Framework for Riverine Flood Risk Management and Community Resilience 2019;
- National Disaster Risk Reduction Framework (2018);
- The Queensland Strategy for Disaster Resilience (2022);
- Queensland Emergency Risk Management Framework (2017) (QERMF)

This Framework applies to managing floods in urban, rural and remote areas of Queensland, resulting from:

- catchment flooding, including rivers and other watercourses, overland flow paths and groundwater systems as a result of prolonged or intense rainfall;
- coastal flooding due to tidal or storm-driven coastal events, including storm surge in lower coastal waterways (excluding tsunamis).



The Framework is intended for use by those with roles in understanding and managing flood risks and its consequences on the community. This may include emergency management practitioners, flood risk managers, land use planners, engineers, hydrologists, infrastructure providers, and policy and decision makers within government and the broader industry.

Flood risk management requires a multi-disciplinary, coordinated approach in order to be successful. The goal is for sustainable practices that improve community resilience and provide long-term benefits to the built and natural landscapes. Flood risk management involves the full spectrum of stakeholders, from communities and private industry, to local, state and national governments and non-government organisations. It includes arrangements about managing the potential adverse effects of floods - for example, arrangements for mitigating, preventing, preparing for, responding to and recovering from a disaster.

It involves consideration of the full range of management options, as shown in Figure 2-1, including the best use of land, design of built form, land and water management practices, as well as disaster management, community resilience and response management, and structural mitigation.

It is also necessary to acknowledge the alternate cycles of drought and floods commonly experienced in Queensland, the need and desire for urban and economic growth and protection of our habitats and ecosystems.

Management of our floodplains should be based on best practice, which promotes tailored, proportionate assessment that provides an understanding of flood behaviour so that the full range of flood risk to the community can be understood and effectively communicated. This leads to informed decisions on the management of risk, as well as economic investment in development and infrastructure on floodplains.



Effective and strategic flood risk management is important for the long-term ecological, social and economic sustainability of Queensland.

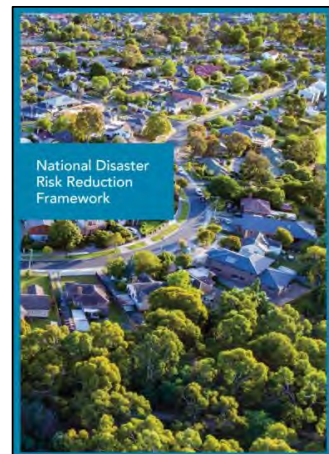


Figure 2-1 Floodplain Management Planning (QRA, 2021)

2.2 National Disaster Risk Reduction Framework (2018)

This National Framework is informed by the *Sendai Framework for Disaster Risk Reduction 2015 – 2030* (Department of Home Affairs, 2018), *Paris Agreement* (United Nations, 2015) and the *Sustainable Development Goals* (United Nations, 2015) to be translated into actions suitable to the Australian context. This framework facilitates a national, whole of society approach to community resilience. It was developed collaboratively by all States, Territories, Local Government and key private sector representatives invited by the Australian Government in 2018. The Framework identifies the following drivers for action:

- Natural hazards are more frequent and intense;
- Essential services are interconnected and interdependent;
- People and assets are more exposed and vulnerable;
- Disaster impacts are long term and complex;
- The costs of disasters are growing; and
- Momentum to address the financial impacts of a changing climate is building.



This framework is structured around four key environments: *built, social, natural* and *economic*. This is a clear progression from the Sendai Framework to the Australian 2030 Disaster Risk reduction vision and goals. There are four framework priorities to achieve these goals and practical change guidance at all levels of government, including these priority areas:

- Priority 1: Understand Disaster Risk;
- Priority 2: Accountable Decisions;
- Priority 3: Governance, Ownership and Responsibility; and



■ Priority 4: Enhanced Investment.

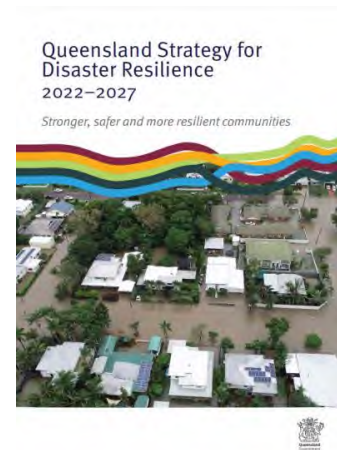
Some priority actions are intended to be completed at the same time and in a continuous cycle, with the focus towards reducing disaster risk. Numerous strategies are outlined under each priority area, and 5-year outcomes are provided to make the strategy intent more tangible and timebound.

2.3 Queensland Strategy for Disaster Resilience 2022 - 2027

The Queensland Strategy for Disaster Resilience (QSDR) (QRA, 2022) builds off the previous versions of the QSDR and aims to embed disaster resilience into business-as-usual activities and guide a whole-of-government approach to improve disaster resilience across Queensland. It aligns with broader global, national and state disaster resilience policy.

The social, environmental and economic costs from disaster events are only expected to increase with a changing climate. Disaster events are predicted to become more extreme with more people expected to become exposed. However, currently the costs of recovery and response still outweighs the investment in disaster resilience measures. The QSDR aims to create systematic change through four primary objectives supported by strategic actions. Its key objectives are summarised below:

1. Queensland understand the potential disaster risks we face,
2. We work together to better manage disaster risk,
3. We seek new opportunities to reduce disaster risk
4. We continually improve how we prepare for, respond to, and recover from disasters.





3 PROJECT PHILOSOPHY

The primary objectives of the Toosan Toosan Creek and Lowlands Lagoon Coastal and Flood Risk Management Study and Plan are to understand the current and future flood risk across the study area and develop an integrated and coordinated plan to manage this risk with a goal to improve how Toosan Toosan and Lowlands Lagoon prepare for, respond to and recover from coastal and flood events. These objectives align with national and state policy for disaster risk reduction.

3.1 Methodology

The methodology applied to the Toosan Toosan Creek and Lowlands Lagoon Coastal and Flood Risk Management Study is aligned with the Australian Institute of Disaster Resilience (AIDR) Handbook 7 - Managing the Floodplain: a guide to best practice in flood risk management in Australia (AIDR, 2017), Queensland Flood Risk Management Framework (QRA, 2021), Queensland Emergency Risk Management Framework (QFES, 2017) and Risk Management Standard ISO31000:2018.

These guidance documents and frameworks set out current accepted best practice for floodplain management and risk assessments for floods. They aim to reduce impacts to the community when flooding occurs by providing the principles and foundations for flood risk management. Presently, best flood risk management approaches in Queensland are aligned with ISO31000:2018 and can be summarised by four steps namely, risk identification, risk analysis, risk evaluation, and risk treatment.

This approach to risk management has been applied to the Toosan Toosan Creek and Lowlands Lagoon Coastal and Flood Risk Management Study and contextualised for flood risk based on Handbook 7 (AIDR, 2017) and the Queensland Flood Risk Management Framework (QRA, 2021). The flood risk management process, as presented in Figure 3-1, involves the following key steps:

1. collecting the necessary data,
2. defining the flood hazard,
3. assessing the risk, considering options to manage the risk to acceptable levels,
4. developing an implementation plan to manage the risk.

An important component of flood risk management is the process of monitoring and review, and communication and consultation. This process aims to embed and prioritise continuous improvement in flood risk management and ensure an integrated approach through engagement with all relevant stakeholders.

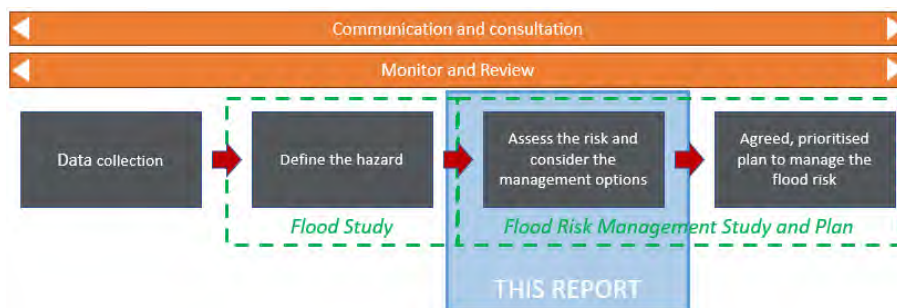


Figure 3-1 Flood risk management process (QRA, 2021)



3.1.1 Risk Identification

To understand current flood risk within the catchment, detailed examination was undertaken for the following factors:

- Flood behaviour including frequency and hazard,
- Type of development or land use exposed,
- Economic impacts from flooding,
- Isolation caused by flood waters creating flood islands,
- Time to inundation of roads and buildings,
- Duration of inundation of roads and buildings,
- Vulnerability of residents.

3.1.2 Risk Analysis

Risk is defined as a combination of likelihood and consequence (ISO31000:2019).

In understanding the likelihood of flooding, 7 flood likelihoods consistent with Australian Rainfall and Runoff 2019 and Handbook 7 – Managing the floodplain: A guide to national best practice floodplain management (AIDR, 2017) were considered. Likelihood is expressed as the flood event's Annual Exceedance Probability (AEP), that is the probability that a flood event of a given magnitude or larger will be exceeded in any one year.

The following AEP events were adopted from the design events included in the Toosan Toosan and Lowlands Lagoon Flood Study Update (Water Technology, 2023) and have been considered when assessing the risk of flooding in the catchment:

- 20% (1 in 5) AEP,
- 10% (1 in 10) AEP,
- 5% (1 in 20) 5% AEP,
- 2% (1 in 50) AEP,
- 1% (1 in 100) AEP,
- 1% (1 in 100) AEP Climate Change Scenario based on Representative Concentration Pathway (RCP) 8.5 and a planning horizon at 2100,
- 5% (1 in 20) AEP Catchment Event and 1% (1 in 100) AEP Storm Surge Event,
- 5% (1 in 20) AEP RCP 8.5 Catchment Event and 1% (1 in 100) AEP 2100 Storm Surge Event,
- 0.5% (1 in 200) AEP,
- 0.2% (1 in 500) AEP, and
- Probable Maximum Flood (PMF).

Consequence examines the impact to exposed elements because of a flood event. This is both the physical impact of the event on an asset, as well as that of the economic, social, and environmental impact. A range of flood risk factors that inform consequence includes flood behaviour (hydraulic hazard and flood function), the land use and type of development exposed to the flood event, community vulnerability, isolation and evacuation constraints, tolerability of the community to flooding, impacts to essential and critical services and the economic impact from flood events. These factors are key to understanding flood risk across the study area and inform the identification and assessment of appropriate responses to flood risk.



3.1.2.1 Risk Evaluation

The next step in a risk assessment is to evaluate risk within a scale of acceptance and tolerance, to prioritise mitigation responses to areas exposed to intolerable risks. Risk tolerance determines which risks, locations, and assets should be addressed as a priority. It is important to recognise that the State Planning Policy states that risks associated with natural hazards should be avoided as the first option, and mitigation where this is not possible.

Risk evaluation is often further categorized into **intolerable**, **tolerable** or **acceptable** risk, based on certain thresholds. When considering strategic land use planning outcomes, categories are defined with the State Planning Policy – State interest guideline for natural hazards, risk and resilience (SPP). The SPP defines the risk evaluation categories which are used throughout this project:

- Acceptable Risk
 - An acceptable risk is a risk that, following an understanding of the likelihood and consequences, is sufficiently low to require no new treatments or actions to reduce risk further. Individuals and society can live with this risk without feeling the necessity to reduce the risk any further.
- Tolerable Risk
 - A tolerable risk is a risk that, following an understanding of the likelihood and consequences, is low enough to allow the exposure to continue, and at the same time high enough to require new treatments or actions to reduce risk in the short to medium term. Society can live with this risk but believes that, as much as is reasonably practical, steps should be taken to reduce the risk further.
- Intolerable Risk
 - An intolerable risk is a risk that, following an understanding of the likelihood and consequences, is so high that it requires actions to avoid or reduce the risk. Individuals and society will not accept this risk and measures are to be put in place to reduce the risk to at least a tolerable level.

Defining tolerable risk is challenging and requires significant community engagement. However, it should be recognised that a community's tolerability of flood risk is not static and may look different immediately prior to or after a flood event.

3.1.2.2 Risk Treatment / Management Strategies

Risk treatment and management strategies are addressed in the later chapters of this report. A range of flood management options are explored and assessed for multiple benefits and outcomes. This includes the analysis of damages that can be reduced as a result of certain physical flood management options. Consideration of physical management measures is also extended to how property scale flood management measures can reduce damages over time.

Risk management measures also investigates non-structural options such as land use planning responses, raising community awareness and resilience, emergency preparedness and response aimed at reducing flood risk across the catchment.



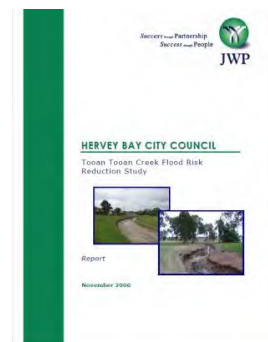
4 BACKGROUND

4.1 Previous Studies

4.1.1 Tooan Tooan Creek Flood Risk Reduction Study (JWP, 2006)

John Wilson & Partners (JWP) was commissioned by Hervey Bay City Council (HBCC) - (now within the Fraser Coast Regional Council (FCRC) local government area (LGA) - to undertake a Flood Risk Reduction Study for the Tooan Tooan Creek Catchment area. The Tooan Tooan Creek catchment comprises two (2) separate study areas known as the Taylor and Stephenson Street Catchments. The purpose of the study included:

- Documenting the existing flooding and drainage characteristics throughout the catchment for a range of design flood events;
- Undertaking a board flood risk assessment for the catchments based upon the existing flooding characteristics. This includes the identification of areas of risk within the catchment; and
- Identifying at least in a broad sense the various options for managing and reducing existing flood risks in the catchment. These options will form the basis on which future flood risk reduction strategies will then be developed for the catchment.



It is the intent of this study to form the basis on which existing flooding problems are characterised including the assessment of flood risks for the purposes of providing the base information on which future flood risk reduction activities can be investigated and undertaken for the catchment. The management of catchment flood risks and the various strategies required to reduce these risks is outside the scope of works for this project and thus will be the subject of a more detailed assessment to be undertaken in the future.

This study identified and quantified flooding risk for both the Taylor and Stephenson Street catchments. Due to model and GIS data inaccuracies, the project was unable to develop detailed flood mitigation options for both catchments in order to mitigate flood risk.

However, conceptual options for mitigation strategies to address all critical areas of flood risk in both catchments were identified and discussed as part of this report. Specifically, the works completed included:

- The identification and assessment of existing drainage capacities, flow paths and flood information for the 1 in 10, 20, 50 and 100 year ARI design flood events for the Taylor and Stephenson Street catchments;
- Preparation of detailed flood data outputs to document the outcomes from the analysis works including flood summary data and flood extent plans for the Taylor Street catchment (plans for the Stephenson Street catchment included only annotated depth and water surface level values);
- Assessment of flood risk and the preparation of flood risk summaries for both the Taylor and Stephenson Street catchments;
- Identification of conceptual mitigation options for both catchments;
- Preparation of summary tables, models, flood extents, GIS mapping and reporting outputs to formally document the outcomes of the study; and
- Preparation of a report congruous with the Hervey Bay City Council Disaster Mitigation Plan.

The report recommended that Council utilises the outcomes from this Flood Risk Assessment Study for the Taylor and Stephenson Street catchments in the management of existing and future stakeholders within the catchment in terms of reducing flood risk to an acceptable and manageable standard.



Both catchment study areas were found to be adversely inundated by flooding for relatively minor flooding events. Due to the inconsistencies in model and GIS data, it is also recommended that further flood analysis works be instigated for both the Taylor and Stephenson Street catchments to accurately determine the full impacts of flooding on residential properties, road infrastructure and commercial sectors but more importantly for the purposes of focusing on risk treatment measures.



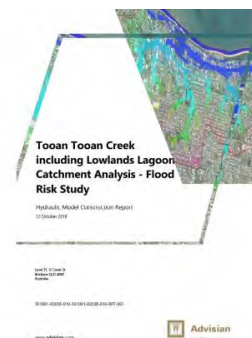
Figure 4-1 Toon Toon Creek Flood Risk Reduction Study Area (JWP, 2006)

4.1.2 Toon Toon Creek including Lowlands Lagoon Catchment Analysis – Flood Risk Study (Advisian, 2018)

Advisian was commissioned by Fraser Coast Regional Council (FCRC) to develop a stormwater catchment model for the natural Toon Toon Creek catchment including the Lowland Lagoons catchment.

The overall objective for the project is to allow the identification and analysis of a variety of flood risk based components for catchment management, development planning / building, road and infrastructure design and Emergency Management purposes, including to be utilised for the purpose of determining minimum habitable floor levels and defined flood levels under the Fraser Coast Planning Scheme and relevant Building Regulation and Queensland Development Codes.

The Flood Study Update (Advisian 2018) report investigates the existing flooding characteristics within the Toon Toon Creek and Lowlands Lagoon catchments.



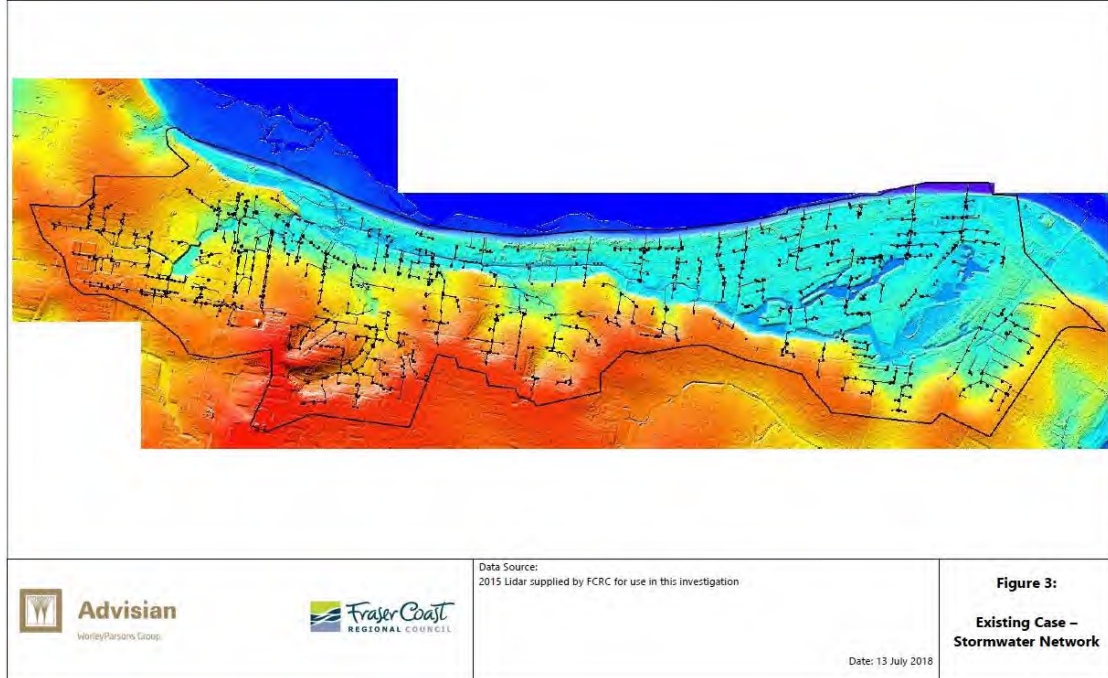


Figure 4-2 2.1.2 Toon Toon Creek including Lowlands Lagoon Catchment Analysis – Flood Risk Study model extent (Advisian, 2018)

4.1.3 Toon Toon Creek Phase 2 Mitigation Options (Advisian, 2020)

Advisian were commissioned by Fraser Coast Regional Council to undertake an assessment of a series of conceptual mitigation options within the Toon Toon (including Lowlands Lagoons) catchment. The assessment was aimed at quantifying the reduction in flood risk provided by each option.

The assessment was undertaken using Councils Toon Toon (including Lowlands Lagoons) TUFLOW flood model and hydraulically assessed the potential risk reduction benefit associated with the following options:

1. Cunningham Street kerb and channel & drainage works (3 options)
2. Lowlands Lagoon trunk duplication
3. Lake/detention storage repurpose – Old Maryborough Road to Main Street
4. Esplanade crossing upgrade
5. Toon Toon Creek channel naturalisation
6. Totness Street culvert weir
7. Beach outlet rationalisation

There was no formal recommendation for progressing the options assessed as part of the study.



4.2 Toosan Toosan and Lowlands Lagoon Flood Study Update

This Flood Risk Management Study is informed by the recent update of the flood study (Water Technology, 2023) which provides a comprehensive understanding of flood behaviour across the full range of possible flood events.

A high-level review of the adopted hydraulic model developed by Advisian in 2018 was completed at the beginning of this study. It was noted that the model had been developed as a stormwater catchment model and a number of uncertainties in the model development were identified that were considered not to provide a fit-for-purpose basis for undertaking a flood risk management study. Key recommendations from the review included:

- The adopted direct rainfall modelling was considered acceptable for modelling stormwater (overland) flow behaviour, however, did not provide a good representation of catchment flood behaviour. It was therefore recommended that fit-for-purpose hydrologic and hydraulic model was developed ensure model outputs were representative of waterway flooding rather than overland flow.
- Revise adopted losses to incorporate conservative losses for design events consistent with ARR19 in lieu of calibration data.
- Significant updates to the stormwater network have been completed, including:
 - Adverse gradients,
 - Pipes not snapped or drawn the wrong way,
 - Incorrect invert levels,
 - Missing structures,
 - Incorrect structure sizing, and
 - Instabilities.
- Adopted roughness values are considered outside the typical lower range limits, when compared to industry standards. The adopted roughness values in some areas were not reflective of the existing land use.
- Re-assessment of base case required as post-processing details around critical duration and selected temporal patterns were not provided.
- Update of flood estimates for the full range of possible events, in line with Australian Rainfall and Runoff guidance.

The updated flood study was finalised in early 2023 and is considered fit-for-purpose, providing a robust and comprehensive understanding of flood behaviour across the full range of flood events from the 50%AEP flood event to the Probable Maximum Flood event. Details of this model update can be found in the corresponding *Toosan Toosan and Lowlands Lagoon Catchment Flood Model Update* (Water Technology, 2023). The Advisian 2018 model used 2015 LiDAR for Toosan Toosan and this has been retained in the Flood Study update. Outputs from the 2023 update provide included:

- Flood levels
- Flood depth
- Flood velocity
- Time to Inundation
- Duration of Inundation
- Flood Hazard (AIDR, depth-velocity product).



5 DEFINING FLOOD RISK

5.1 Flood behaviour

The study area can be separated into the Toaan Toaan catchment and Lowlands Lagoon catchment, however, through a complex lake system and the stormwater network, flooding across the two catchments interacts and needs to be assessed together. The study area is vulnerable to both catchment dominated flooding and coastal dominated flooding. Areas vulnerable to flooding change based on which mechanism is dominant.

5.1.1 Description of Catchment Dominated Flooding

5.1.1.1 Toaan Toaan Creek Catchment

The Toaan Toaan catchment comprises three main flow paths, namely the flow path upstream of Taylor Street, upstream of Torquay Road and the flow path seen along Freshwater Street.

The flow path east of Stephen Street is characterised by a concrete lined channel originating from Bideford in the east flowing in a westerly direction. Another section of concrete lined channel is seen from Boat Harbour Drive traversing in a north-easterly direction joining the Freshwater Street flow path at Frank Street. The channel continues west before discharging to the Coral Sea through a set of culverts located underneath the Esplanade on Toaan Toaan Creek. While in smaller events, the majority of flood waters are largely contained within the concrete channel, there is still some minor shallow flooding that has broken the banks of the channel inundating areas along edges of the channel and overtopping some roads. In larger events, the impacts are more significant with property starting to become impacted. Large depths of up to 1 m in the 1% AEP 2100 RCP8.5 design flood event are seen in the channel to the west of Macbel Court. Shallow flooding is seen along Macbel Court, south of Boat Harbour Drive and to the east of Tavistock Street. Further downstream, Totness Street experiences depths of 0.6 m to 1.4 m with properties impacted either side of the street. The area between Zephyr Street and Queens Road is subject to very deep flood depths of up to 1.5 m. McKean Road is situated in this area and in the 1% AEP 2100 RCP8.5 design flood event, McKean Road is subject to flood depths of up to 1.4 m with floodwaters inundating property.

The flow path upstream of Torquay Road comprises a natural channel near Daydream Court and flows in a generally north-easterly direction before flowing into the Banksia Park Drainage Reserve. This reserve acts as a detention basin and experiences depths of up to 1.5 m in events as frequent as the 20% AEP design flood event. A set of culverts underneath Boat Harbour Drive connects floodwaters from Banksia Park Drainage Reserve to the downstream lake system. This lake system is designed as a wet detention basin, meaning it is always wet and can temporarily store more water during a flood event. In the 1% AEP 2100 RCP8.5 design flood event, this lake system has flood depths of between 1.5 m to 2 m. Boat Harbour Drive, Zephyr Street, McNalley Street and East Street are all overtopped in this event with flood depths reaching 1 m along East Street. Zephyr Street and East Street are inundated the most frequently with both roads starting to become inundated in the 20% AEP design flood events. Property is most significantly impacted downstream of East Street, with property along Zephyr Street and Torquay Road starting to be impacted in the 5% AEP and 2% AEP design flood events.

While properties impacted by the flow path east of Neils Street are generally impacted by low flood depths (i.e., of between 200 – 500 mm in the 1% AEP 2100 RCP8.5 design flood event), they experience frequent inundation in events as frequent as the 20% AEP design flood event. This flow path traverses in a northerly direction before flowing along Torquay Road in a westerly direction.

The flow path upstream of Taylor Street largely impacts industrial and the main commercial precinct of Toaan Toaan. Floodwaters start near Nissen Street and Old Maryborough Road and flow via a concrete lined channel through the industrial precinct to the lake system between Carlo Street and Main Street. Flooding to property in this area is frequent with some properties in the industrial precinct impacted in events as frequent as the



20% AEP design flood event. Flood depths are generally low of between 200 mm to 400 mm in this area. The main commercial district experiences frequent flooding with increasing flood depths as events become rarer. In the 1% AEP RCP8.5 design flood event, flood depths between Main Street and Taylor Street can reach 600 – 900 mm. A concrete lined channel from Hunter Street traverses flows under Torquay Road and parallel to Hillyard Street before discharging to a channel north east of the Taylor Street and Hillyard Street intersection. Floodwaters are generally contained to this channel in the 20% AEP design flood event, however, do overtop at the Taylor Street and Hillyard Street intersection. Property starts to become impacted in the 10% AEP design flood event.

5.1.1.2 Lowlands Lagoon Catchment

Flooding in Lowlands Lagoon is characterised by a complex lake system and low-lying areas vulnerable to trapped ponding. There is a complex interaction between the Tooan Tooan Creek and Lowlands Lagoon catchments, which is governed by the hydraulic grade between the two catchments. A culvert located at Bideford Street connects the two catchments and flows are able to flow either way.

The Lowlands Lagoon Lake system flows in a clockwise direction before discharging to the ocean via a stormwater network of 3 x 2.1 m Reinforced Concrete Pipes (RCPs). North of this lake system, the catchment is characterised by low-lying areas trapped behind the dune systems. These areas discharge to the ocean via pipe networks.

Properties in Lowlands Lagoon are not inundated as frequently as seen in the Tooan Tooan Creek catchment. However, there are some areas between Eric Street and Alexander Street that experience more frequent inundation. This area experiences inundation in events as frequent as the 20% AEP design flood event and has flood depths of up to 600 mm in the 1% AEP RCP8.5 Climate Change event. There is an area to the east near Hibiscus Street that also experiences frequent inundation. Hibiscus Street has flood depths of up to 500 mm in the 20% AEP design flood event and up to 700 mm in the 1% AEP 2100RCP8.5 Climate Change.

Additionally, William Street and Richard Street experience inundation from the lake system. This area starts to become inundated in the 20% AEP design flood event and the depths increase to up to 600 mm in the 1% AEP 2100RCP8.5 Climate Change.

5.1.2 Description of Coastal Dominated Flooding

The Tooan Tooan and Lowlands Lagoon catchment is vulnerable to coastal inundation as well as catchment inundation. The 1% AEP storm surge in combination with the 5% AEP catchment event has been modelled to understand coastal dominant flooding across the study area. Climate change has also been assessed with the 1% 2100 AEP storm surge in combination with the 5% AEP 2100RCP8.5 Catchment Climate Change event. These two design flood events have been used to understand the exposure to storm surge inundation.

The study area is significantly exposed to storm surge inundation with majority of properties north of Freshwater Street and Cypress Street vulnerable to flooding in the existing climate storm surge event. Depths in this area and in this event range between 0.5 m to 1.5 m. The Lowlands Lagoon area still shows similar ponding behind the dunes, and similar impact to properties neighbouring the lake systems (i.e., William and Richard Street; and Ann Street) as seen in the catchment event.

The Tooan Tooan Creek area is impacted by a storm surge event up to the industrial and commercial precinct near Islander Road and Pialba Place. This area is not impacted as significantly in a storm surge event compared to a catchment dominant event, however, flood depths in Pialba Place are up to approximately 600 mm in an existing climate storm surge event.

When considering storm surge dominant flooding under future climate conditions (i.e., climate change scenario), the study area is significantly more impacted. While Lowlands Lagoon is not impacted as significantly in a catchment dominant event, under climate change storm surge flooding essentially all



properties north of the lake system in Lowlands Lagoon are inundated. Flood depths in this area north of the lake system range from 400 mm to over 1 m. Flood depths north of Freshwater Street and Cypress Street are up to 2 m and 2.3 m in some locations in the climate change storm surge event. The largest change between existing climate storm surge flooding and climate change storm surge flooding in the Toonan Toonan Creek catchment is to the properties between Torquay Road and Torquay Terrace, which experience flooding of up to over 1 m in the climate change event. There are some increases in impact to commercial and industrial property in the vicinity of Hunter Street and Taylor Street.

5.1.3 Design Event Flood Data

Flood behaviour mapping by way of peak flood levels, peak velocities, flood depths and flood hazard have been produced and are presented in Appendix B.

Peak flood depths at some key road locations across the study area, as shown in Figure 5-1, have been extracted and presented in Table 5-1 and Table 5-2 below.

Table 5-1 Peak flood depths at key road locations for each catchment dominated design flood event.

Road Name	Peak Flood Depth (m)							
	20%	10%	5%	2%	1%	0.5%	0.2%	PMF
Main Street	0.2	0.2	0.2	0.3	0.3	0.4	0.4	1.0
Hunter Street	0.4	0.6	0.7	0.9	1.0	1.1	1.2	2.0
Torquay Road	0.5	0.7	0.5	0.6	0.8	0.8	0.9	1.8
Hillyard Street	0.7	0.9	1.0	1.2	1.3	1.4	1.5	2.2
East Street	0.2	0.4	0.6	0.7	0.7	0.8	0.9	1.5
Zephyr Street	1.3	1.3	1.5	1.6	1.7	1.7	1.8	2.4
McKean Road	0.5	0.6	0.7	1.0	1.2	1.3	1.5	2.3
Esplanade	-	-	-	-	0.4	0.5	0.6	1.2
Totness Street	0.9	1.0	1.0	1.1	1.1	1.2	1.3	2.3
Bideford Street	-	-	-	0.2	0.2	0.3	0.4	1.1
Fraser Street	-	0.1	0.2	0.4	0.5	0.6	0.7	1.4
Robert Street	1.1	1.2	1.3	1.4	1.5	1.6	1.8	2.7
Ann Street South	0.1	0.1	0.1	0.1	0.1	0.2	0.2	1.0
Ann Street North	-	-	0.2	0.2	0.4	0.5	0.7	1.6
Alexander Street	0.1	0.1	0.1	0.4	0.6	0.7	1.0	1.8
Dayman Street	0.5	0.6	0.7	0.9	1.0	1.0	1.2	1.9
Elizabeth Street	1.8	1.9	2.0	2.1	2.1	2.2	2.2	2.8
Guard Street	0.2	0.4	0.5	0.6	0.7	0.7	0.8	1.5
Hibiscus Street	0.6	0.6	0.6	0.7	0.7	0.7	0.7	1.1
Margaret Street	0.2	0.3	0.3	0.3	0.5	0.6	0.8	1.7


Table 5-2 Peak flood depths at key road locations for each coastal dominated design flood event

Road Name	Peak Flood Depth (m)	
	5% AEP Catchment 1% AEP Storm Surge	5% AEP RCP8.5 Catchment 1% AEP 2100 Storm Surge
Main Street	0.2	0.31
Hunter Street	0.7	1.06
Torquay Road	0.5	0.95
Hillyard Street	1.1	1.83
East Street	0.6	0.71
Zephyr Street	1.5	1.63
McKean Road	1.2	2.50
Esplanade	1.3	2.54
Totness Street	1.0	1.14
Bideford Street	0.3	1.04
Fraser Street	0.6	1.39
Robert Street	1.8	2.72
Ann Street South	0.2	1.07
Ann Street North	0.7	1.62
Alexander Street	1.0	1.90
Dayman Street	1.1	1.93
Elizabeth Street	2.0	2.16
Guard Street	0.9	1.96
Hibiscus Street	1.3	2.49
Margaret Street	0.9	1.79

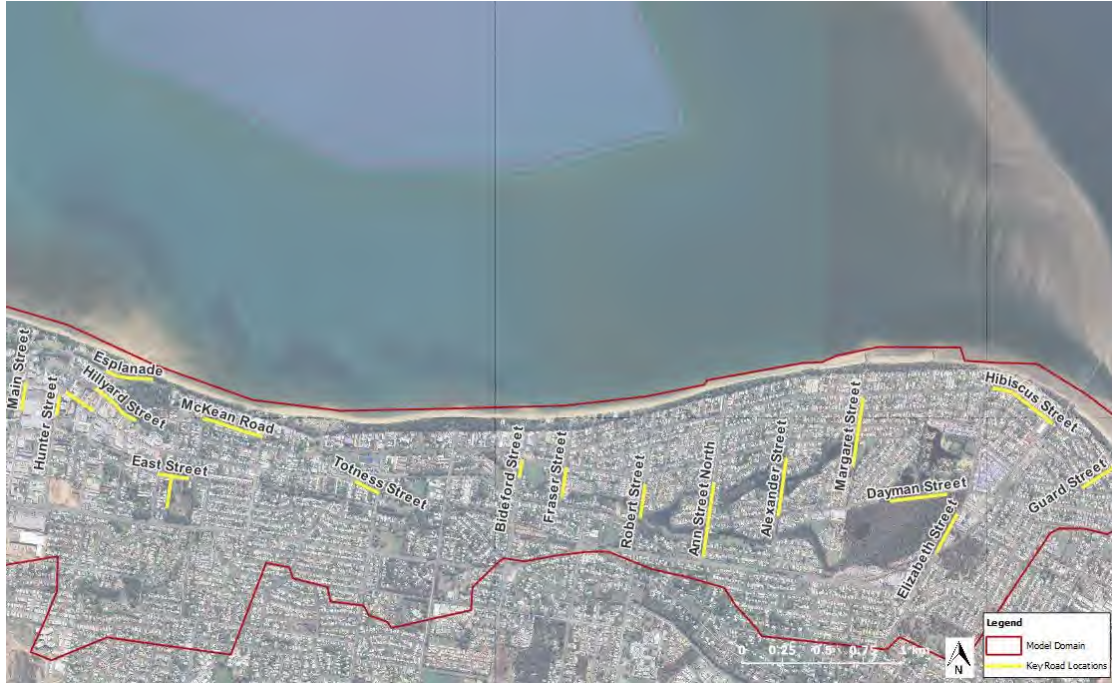


Figure 5-1 Key Road Locations across the Study Area

5.1.4 Hydraulic Hazard

Hydraulic hazard considers the potential loss of life, injury or damage to vehicles, buildings and infrastructure from floodwaters. Depending on the depth and speed of the floodwaters, people and vehicles can be swept away and infrastructure can be damaged or destroyed.

Hydraulic hazard considers the combination of flood depth and flood velocity to understand areas in the floodplain that may be unsafe for children and the elderly, or on the other end of the scale areas potentially exposed to hazard that threatens the structural integrity of buildings. Figure 5-2 and Table 5-3 present the hydraulic hazard classifications from the Australian Institute of Disaster Resilience (AIDR) Handbook 7 - Managing the Floodplain.

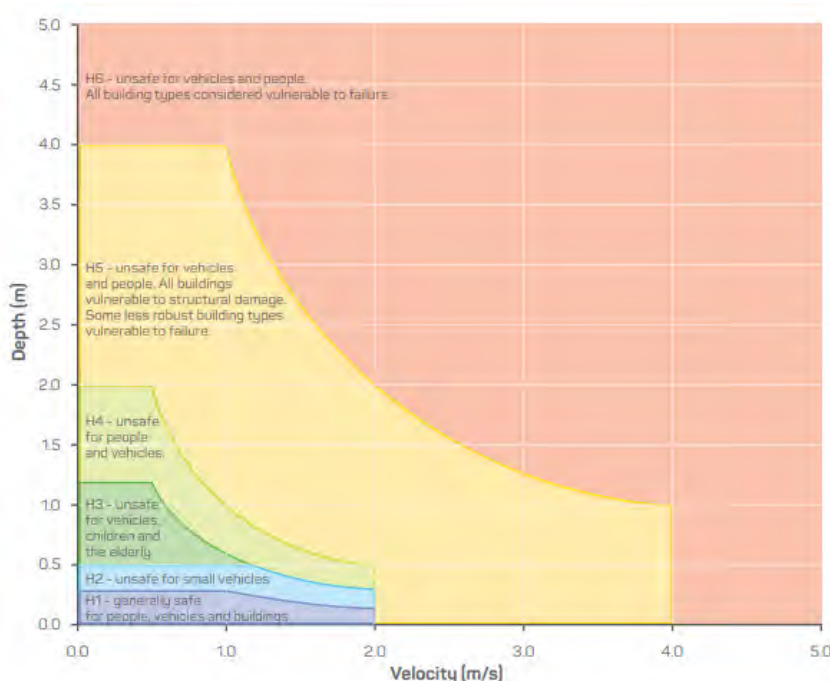


Figure 5-2 AIDR Hazard Categories (AIDR, 2017)

Table 5-3 AIDR Hazard Category Definitions

Hazard Vulnerability Classification	Description
H1	Generally safe for vehicles.
H2	Unsafe for small vehicles.
H3	Unsafe for vehicles, children and the elderly.
H4	Unsafe for vehicles and people.
H5	Unsafe for vehicles and people. All building types vulnerable to structural damage. Some less robust building types vulnerable to failure.
H6	Unsafe for vehicles and people. All building types considered vulnerable to failure.

Hydraulic hazard has been mapped across the floodplain and is presented in Appendix C. A summary of key findings focusing on the 1% AEP 2100 RCP8.5 design flood event are described below:

- High hazards are generally constrained to the main channel, areas immediately adjacent to the channel, lake system, and areas subject to coastal inundation.
- Lower hazards in the order of H1 to H2 are seen in industrial area in the upper parts to the west of the Toonan Toonan catchment with only small pockets of H3 hazard.
- The flow path between Charles Street and Taylor Street, which comprises majority of the commercial precinct, experiences higher hazards between H3 and H5 to both buildings and roads.



- Hillyard Street, just downstream of the commercial precinct, is subject to very high flood hazards of up to H6.
- Upstream of Boat Harbour Drive, higher hazards of greater than H3 are largely contained to the parkland. However, higher hazards of H4 and H5 are seen in the southern section of Zephyr Street.
- The Esplanade ranges in hazard from low hazard of H1 and H2 to higher hazard of H5 between the Toosan Toosan Creek outlet to the corner of Queens Road.
- The Lowlands Lagoon side of the catchment generally has lower velocities and shallow depth ponding to the north of the lake system.
- The lake system is subject to very deep flood depths, and subsequently has high hazards of above H4.
- There is a pocket of H3 hazard near Guard Street and Larsen Street in the northeast corner of the Lowlands Lagoon catchment. This area impacts both property and the road network.
- Larger areas of H3 hazard are seen from Truro Street, north to Cypress Street, Churchill Street and the Esplanade.

5.1.5 Flood Function

Flood function (i.e., hydraulic categorisation) is one of the tools used to identify flood behaviour and risk in a flood risk management study. Outcomes of the flood function definition are primarily used to inform future land use planning. The categorisation is not used to assess individual developments, but rather to give a catchment-scale overview of which areas may be sensitive to changes in landform across the catchment.

Three flood function areas are defined in the Handbook 7 – Managing the Floodplain: A guide to best-practice floodplain management (AIDR, 2017), as follows:

- Flow conveyance – Areas conveying a significant proportion of flood flow where partial blocking will adversely affect flood behaviour. Changes in landform through fill should not be allowed to take place in these areas.
- Flood Storage Areas – Areas outside flow conveyance area which store significant volumes of floodwaters. Reduction in flood storage would cause downstream flood flows to increase.
- Flood Fringe – The remaining area of land affected by flooding, after floodway and flood storage has been defined. Development in flood fringe areas would not generally cause significant hydraulic impact.

These definitions are not precise and vary in application between catchments. A number of studies of similar scale and catchment features were reviewed. Of those tested, the following definitions were found to best meet the criteria outlined in the Handbook 7 – Managing the Floodplain: A guide to best-practice floodplain management (AIDR, 2017).

Table 5-4 Hydraulic categorisation

Floodplain function	Hydraulic behaviour
Floodway	1%AEP velocity-depth > 0.25 m ² /s
Flood Storage	1%AEP velocity-depth > 0.025 m ² /s
Flood Fringe	Remainder of floodplain (up to PMF)

Flood function has been analysed and mapped in Appendix D for the 1% AEP design flood event. These results indicate the *flood fringe* area is very limited in this catchment. Most areas in the catchment will therefore require hydraulic investigation prior to major filling or development works. The impact of filling in the floodplain has been explored in Section 5.3.



5.2 Exposure

5.2.1 Land Use

The current land use zoning for Fraser Coast Regional Council has been analysed to understand the exposure of each zone to flooding. Table 5-5 and Figure 5-3 below outline the number of lots exposed to flooding for each design flood event by land use. To avoid counting lots that are only impacted by a single cell, only lots with more than 5% of the lot area have been included in this count. Community facility zones have been grouped and include uses that can be defined as critical or vulnerable including education facilities, substations and utilities stations, emergency services, medical facilities and cultural facilities. There are no emerging community zones within the identified floodplain. Land use zones categorised as open space, sports and recreation and environmental management have not been included.

This analysis shows that residential uses are by far the most impacted land use across the study area. Approximately 940 residential lots (13% of all residential lots in the study area) are impacted in the 20% AEP design flood event increasing to approximately 1,850 residential lots (26% of all residential lots in the study area) in the 1% AEP design flood event. The principal centre land use is the most exposed land use outside of a residential use, which supports business, community and entertainment activities.

Table 5-5 Number of Lots Impacted by Catchment Flooding

Land Use	Number of Lots Impacted by Land Use (more than 5% of the lot area impacted)								Total Number of Lots in Study Area
	20% AEP	10% AEP	5% AEP	2% AEP	1% AEP	0.5% AEP	0.2% AEP	PMF	
Low Density Residential	354	462	585	696	782	864	987	2011	3960
Medium Density Residential	314	388	443	507	560	625	703	1288	1921
High Density Residential	271	328	385	451	511	593	667	1140	1262
Low Impact Industry	44	52	60	69	74	76	85	137	175
Medium Impact Industry	10	15	23	28	32	35	35	39	39
District Centre	3	3	3	3	4	4	5	8	10
Neighbourhood Centre	0	0	0	0	0	0	0	2	2
Principal Centre	84	101	125	161	184	211	245	491	523
Specialised Centre	3	3	3	6	6	7	8	24	53
Community Facilities	16	16	16	21	23	24	25	29	36

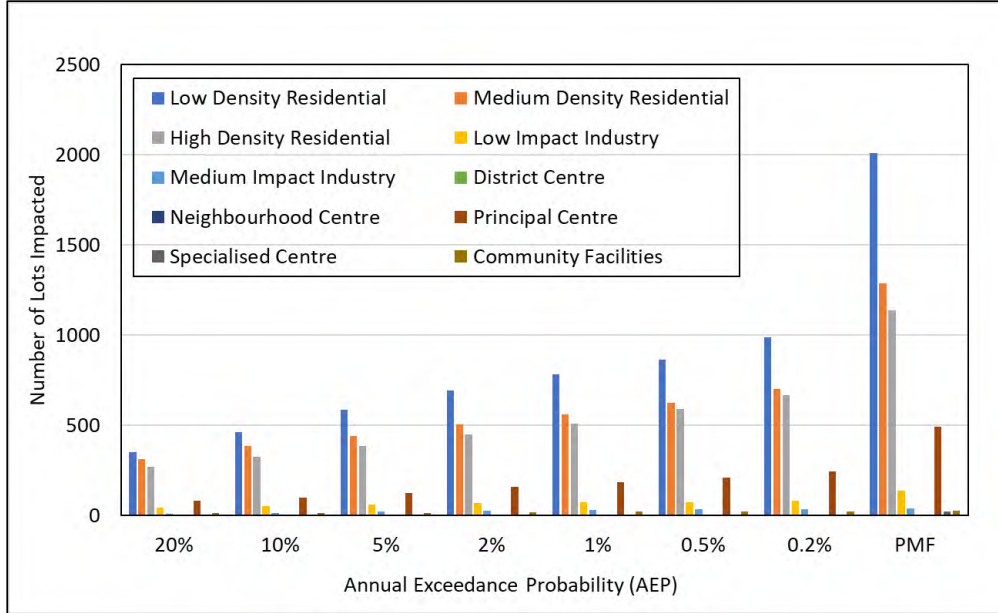


Figure 5-3 Number of Lots Impacted by Catchment Dominated Flooding (more than 5% of the lot area impacted)

Table 5-6 and Figure 5-4 explore land use exposure under a future climate scenario and assesses the lots exposed under a 1% AEP RCP8.5 catchment design flood event and a 1% 2100 storm surge in combination with a 5% AEP RCP8.5 catchment design flood event. There are approximately 3,640 residential lots (51% of all residential lots in the study area) exposed to flooding from either the 1% AEP RCP8.5 catchment design flood event or the 1% AEP 2100 storm surge and 5% AEP RCP8.5 catchment flood event.

Table 5-6 Number of Lots Impacted by Catchment and Storm Surge Flooding from Climate Change

Land Use	Number of Lots Impacted by Land Use (more than 5% of the lot area impacted)			Total Number of Lots in Study Area
	1% AEP RCP8.5	1% AEP 2100 storm surge 5% AEP RCP catchment	Combined	
Low Density Residential	968	1368	1452	3960
Medium Density Residential	676	957	991	1921
High Density Residential	733	1193	1195	1262
Low Impact Industry	80	72	80	175
Medium Impact Industry	35	33	35	39
District Centre	5	5	6	10
Neighbourhood Centre	0	1	1	2
Principal Centre	227	204	234	523
Specialised Centre	8	6	8	53
Community Facilities	25	25	27	36

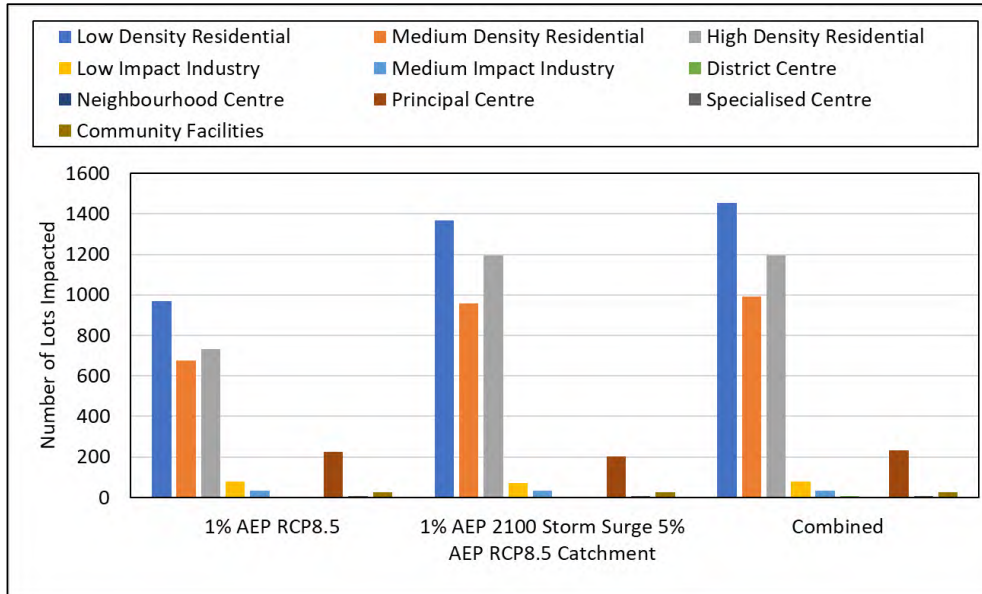


Figure 5-4 Number of Lots impacted under a Future Climate Change Scenario

Lots exposed to high hazard (H5 and H6) have been extracted for the 1% AEP Climate Change Catchment Event, and the 2100 RCP 1% AEP Storm Surge and 5% AEP Climate Change Catchment Event. Table 5-7 shows the number of lots by land use expected to be exposed to high hazards under a future climate scenario. Of note, high density residential is by far the most exposed land use zone to high hazards in both the 1% AEP Catchment Climate Change event and the 2100 1% AEP Storm surge and 5% AEP Catchment Climate Change event. In a 2100 1% AEP Storm surge and 5% AEP Catchment Climate Change event, principal centre and community facilities zoned lots are the most exposed non-residential land use. Community facilities can include a number of vulnerable and critical uses. Of the lots zoned for community facilities, a visual inspection has been completed to understand what uses are impacted. These include the following:

- Hervey Bay Historical Village and Museum,
- East Street Kindy,
- Substation and utility station (location communicated separately to Council),
- Hervey Bay State High School,
- Hervey Bay Neighbourhood Centre, and
- Undeveloped land zoned for community facilities.

Table 5-7 Land Use Impacted by High Hazards from Climate Change

Land Use	Number of Lots Impacted by high hazards by Land Use (more than 5% of the lot area impacted)	
	1% AEP RCP8.5 Climate Change	2100 1% AEP Storm Surge and 5% AEP RCP8.5 Catchment
Low Density Residential	0	241
Medium Density Residential	8	353



Land Use	Number of Lots Impacted by high hazards by Land Use (more than 5% of the lot area impacted)	
	1% AEP RCP8.5 Climate Change	2100 1% AEP Storm Surge and 5% AEP RCP8.5 Catchment
High Density Residential	69	1065
Low Impact Industry	5	4
Medium Impact Industry	0	0
District Centre	0	1
Neighbourhood Centre	0	1
Principal Centre	8	14
Specialised Centre	0	0
Community Facilities	3	10

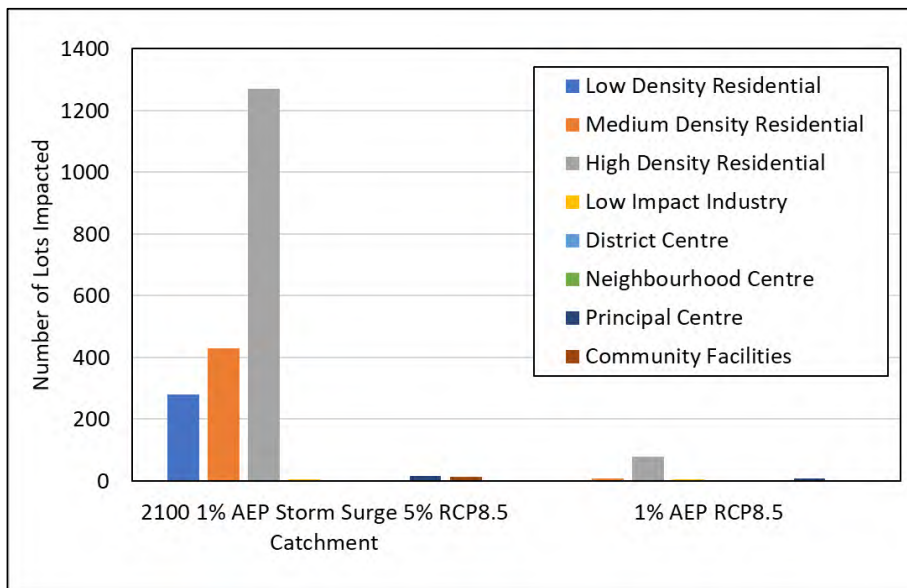


Figure 5-5 Number of Lots impacted by high hazards (H5 and H6) under a Future Climate Scenario

Figure 5-6 through to Figure 5-8 present residential and principal centre lots exposed to the 1% AEP Catchment Climate Change event and the 2100 1% AEP Storm surge and 5% AEP Catchment Climate Change event, and high hazards.

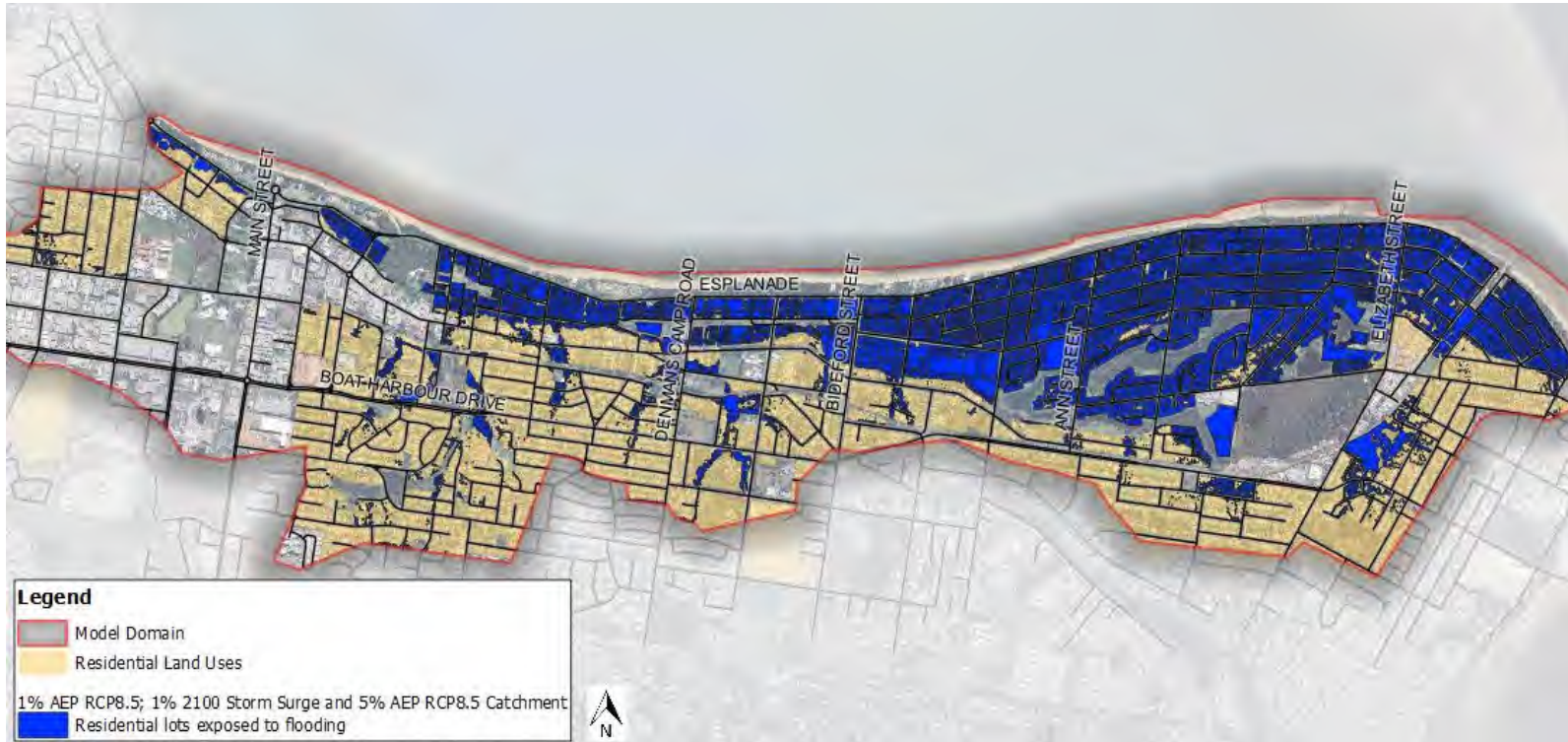


Figure 5-6 Residential Lots Exposed to a Future Climate Change Scenario

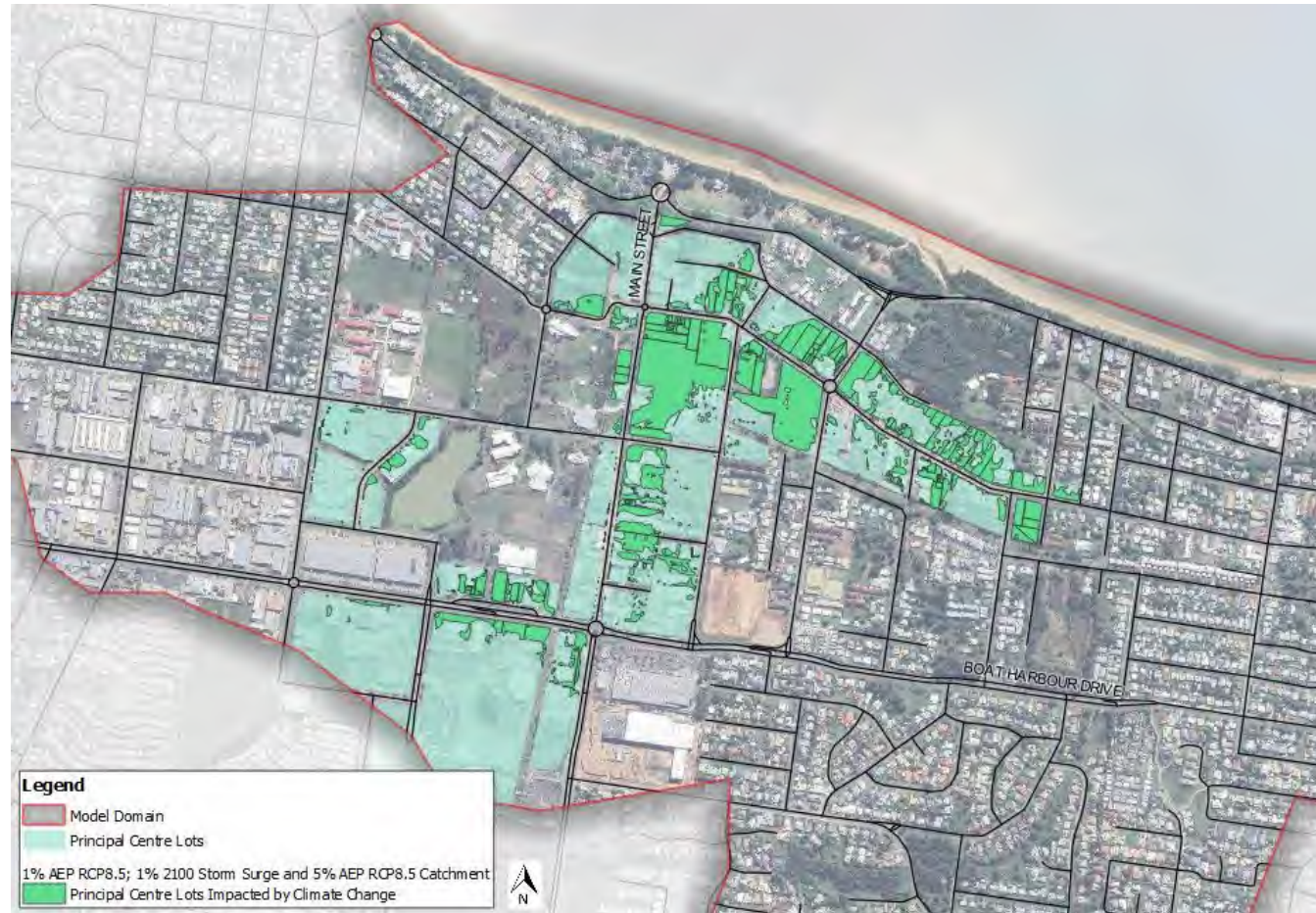


Figure 5-7 Principal centre lots exposed to a Future Climate Scenario.



Figure 5-8 Residential Lots Exposed to H5 or H6 hazards under a Future Climate Scenario



5.2.2 Building database

A building database for the entire catchment has been created as the basis for analysis of property impacts in this study. This database has been developed using best available information at the time of this study. It is recommended when improved LiDAR information is available or if Council undertakes a floor level survey project that this database is updated.

Building footprints were not available as a spatial dataset from Council, so freely available Microsoft generated building footprints for Australia were used. LiDAR information containing both eave levels, roof levels and ground levels was not available, subsequently assumptions were required to estimate floor type and floor levels. Without LiDAR information or completing manual checks using Google Street view, it was not possible to differentiate between slab on ground, lowset or highset residential properties. Subsequently, it has conservatively been assumed that all residential buildings are slab on ground. In reality there will be a mixture of slab on ground, lowset and highset. Additionally, without completing manual checks using Google Street View, it was not possible to determine the number of stories for each property.

The building database documents the building classification types, listed in Table 5-8. This database has been used for calculating existing and mitigated flood damages.

Table 5-8 Residential Building Classification

Description	Category	Category Acronym
One-storey, slab on ground	Fully Detached Single Storey Slab on Ground	FDSS – SOG
Multi Unit, slab on ground	Double or more stories	MUDS

Estimating Floor Levels

Floor level data is required to provide an understanding of building exposure to flooding and to estimate economic damages caused by flooding when flood waters inundate property. There are a number of methods available to estimate floor levels, including using a registered surveyor, estimating floor levels by mobile laser survey (MLS), aerial laser survey (ALS), using a GIS-based algorithm or where data is limited applying broad assumptions. In summary the floor level data used in this flood risk management study have been estimated using available topographic information and assuming a generic floor rise value to represent floor level above ground. Without more detailed information, it is not possible to estimate floor levels more accurately.

Table 5-9 Estimated Floor Height Above Ground

Land Use Type	Building classification	Floor level above surrounding natural ground level
Residential	One-storey, slab on ground	0.3m
Commercial/Industrial	One-storey, lowset	0.1m
Other		0.1m

5.2.3 Building and Population Exposure

A spatial analysis of the land use zoning, buildings and flood behaviour informs an understanding of exposure of the existing land use across the catchment.



5.2.3.1 Building Use Type Exposure Summary

An analysis looking at building exposure has been undertaken across the study area using the building database and the land use zoning from the planning scheme zonings. This analysis has considered any impact within the building footprint including both above floor and below floor flooding. Table 5-10 and Figure 5-9 below show the results of this assessment for each design flood event considered.

This analysis shows that approximately 3,997 buildings are exposed to flooding up to and including the PMF. However, storm surge flooding has a very different mechanism to catchment flooding and different properties are impacted by storm surge events than catchment dominant events. When looking at total buildings exposed by either catchment flooding (up to and including the PMF) or storm surge flooding (up to and include the 2100 1% AEP storm surge and 5% AEP 2100RCP8.5 catchment event) there are 4,047 buildings exposed. Similar to what was seen in the analysis of land use zoning, residential buildings are by far the most exposed to flooding.

Table 5-10 Building Exposure by Land Use

Flood Likelihood	Commercial	Industrial	Other	Residential
20% AEP	74	50	27	733
10% AEP	86	59	31	906
5% AEP	109	63	34	1089
2% AEP	125	70	40	1286
1% AEP	133	78	41	1435
1% AEP RCP8.5	145	83	71	1841
0.5% AEP	142	82	50	1613
0.2% AEP	149	83	53	1808
PMF	235	118	94	3550
1% Storm Surge 5% AEP Catchment	112	63	57	1855
2100 1% AEP Storm Surge 5% AEP RCP8.5 Catchment	133	76	74	2739

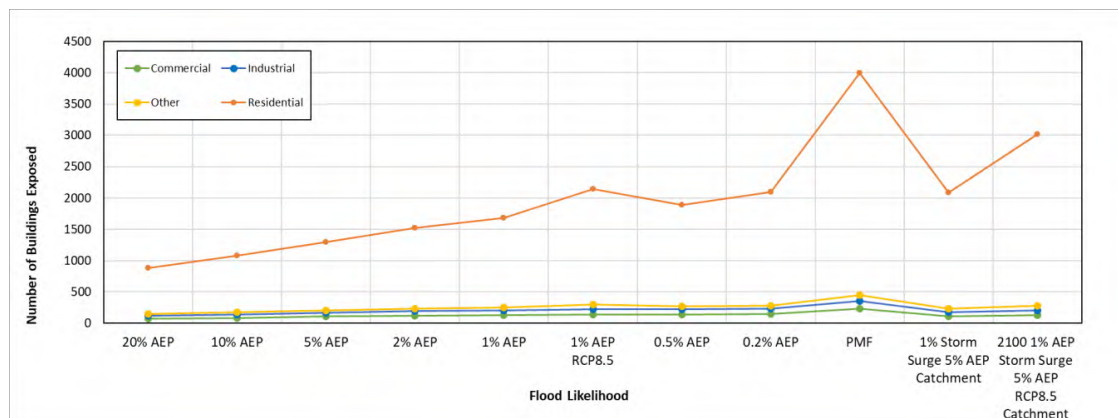


Figure 5-9 Building Exposure by Land Use



5.2.3.2 Residential Exposure

The potential for residential properties to be exposed to inundation was estimated using residential land use types across the catchment including:

- High density residential
- Medium density residential
- Low density residential

Table 5-11 and Figure 5-10 present the number of residential properties inundated above estimated floor level for each catchment design flood event.

Table 5-11 Above Floor Flooding to Residential Buildings

Residential land uses	20% AEP	10% AEP	5% AEP	2% AEP	1% AEP	0.5% AEP	0.2% AEP	PMF
High Density Residential	8	13	18	36	47	56	89	519
Medium Density Residential	11	15	21	32	42	54	83	659
Low Density Residential	9	14	21	35	47	76	102	1266
Total	28	42	60	103	136	186	274	2444

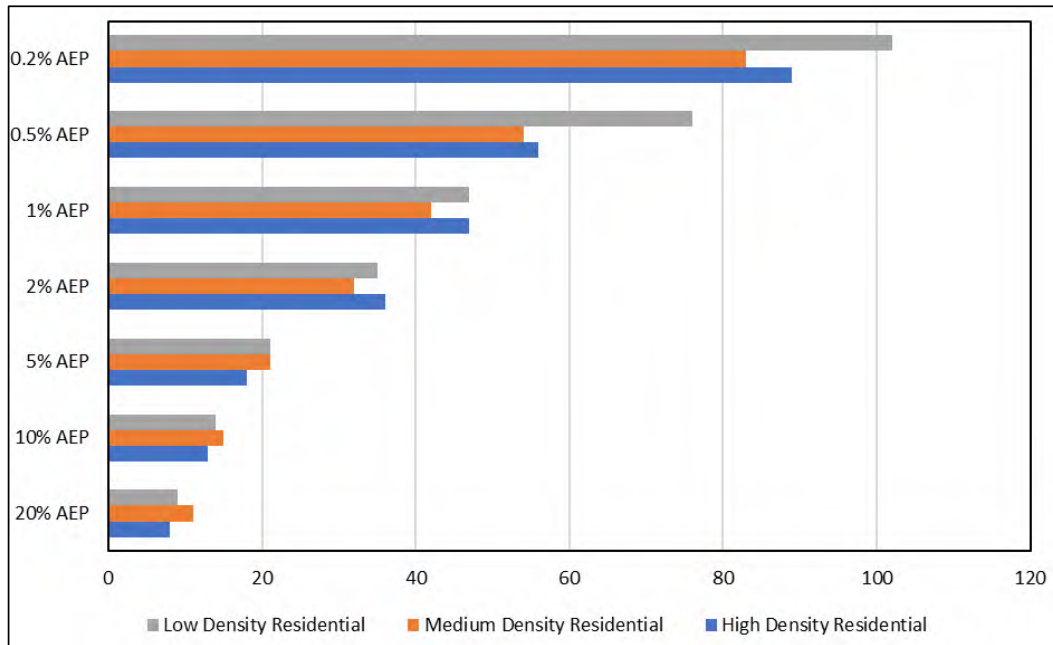


Figure 5-10 Above Floor Flooding to Residential Buildings



5.2.3.3 Commercial and Industrial Exposure

The potential for businesses to be exposed to inundation was estimated using commercial and industrial zones across the catchment including:

- District Centre
- Principal Centre
- Specialised Centre
- Neighbourhood Centre
- Low Impact Industry
- Medium Impact Industry

Table 5-12 and Figure 5-11 present the number of commercial and industrial properties inundated above estimated floor level for each catchment design flood event.

Table 5-12 Above Floor Flooding to Commercial and Industrial Buildings

Zone	20% AEP	10% AEP	5% AEP	2% AEP	1% AEP	0.5% AEP	0.2% AEP	PMF
District Centre	1	1	1	2	2	2	2	6
Low Impact Industry	13	17	21	23	24	30	37	74
Medium Impact Industry	1	1	1	2	7	9	10	30
Neighbourhood Centre	0	0	0	0	0	0	0	2
Principal Centre	18	24	39	46	54	68	81	186
Specialised Centre	1	1	1	1	1	2	3	16
Total	34	44	63	74	88	111	133	314

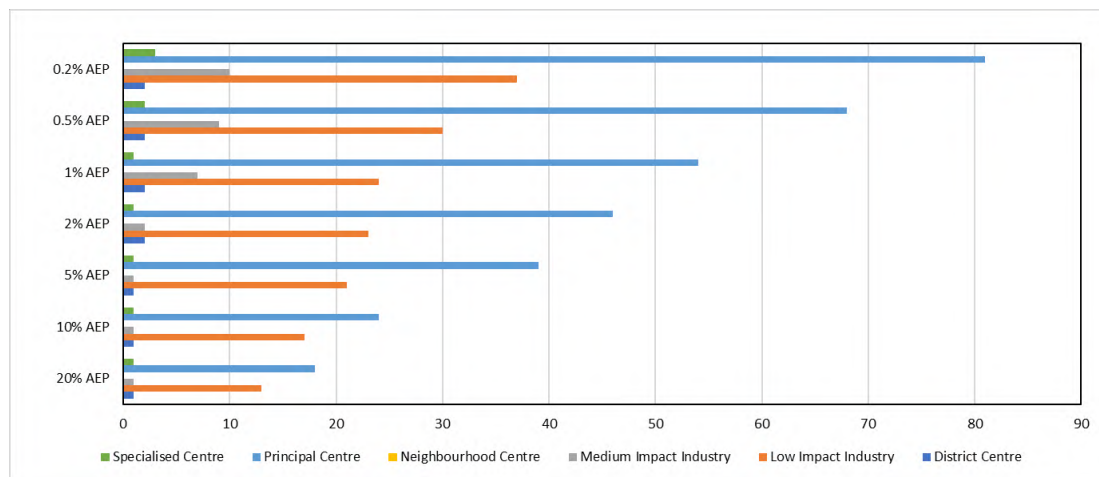


Figure 5-11 Exposure of Commercial and Industrial businesses by return period.



5.2.3.4 Population at risk

The potential exposure of people from flooding was estimated using residential buildings impacted (above and below floor flooding) and the average household size (person per dwelling) from the Australian Bureau of Statistics (ABS). The average number of people per dwelling is 2.3.

Figure 5-12 presents the population exposed by return period. There are over 8,000 people potentially impacted in the floodplain. This does not consider people who may be indirectly impact (e.g., impacted because their workplace was inundated). Of note, an additional 933 people are impacted in the 1% AEP RCP8.5 Climate Change event versus the 1% AEP existing climate design flood event.

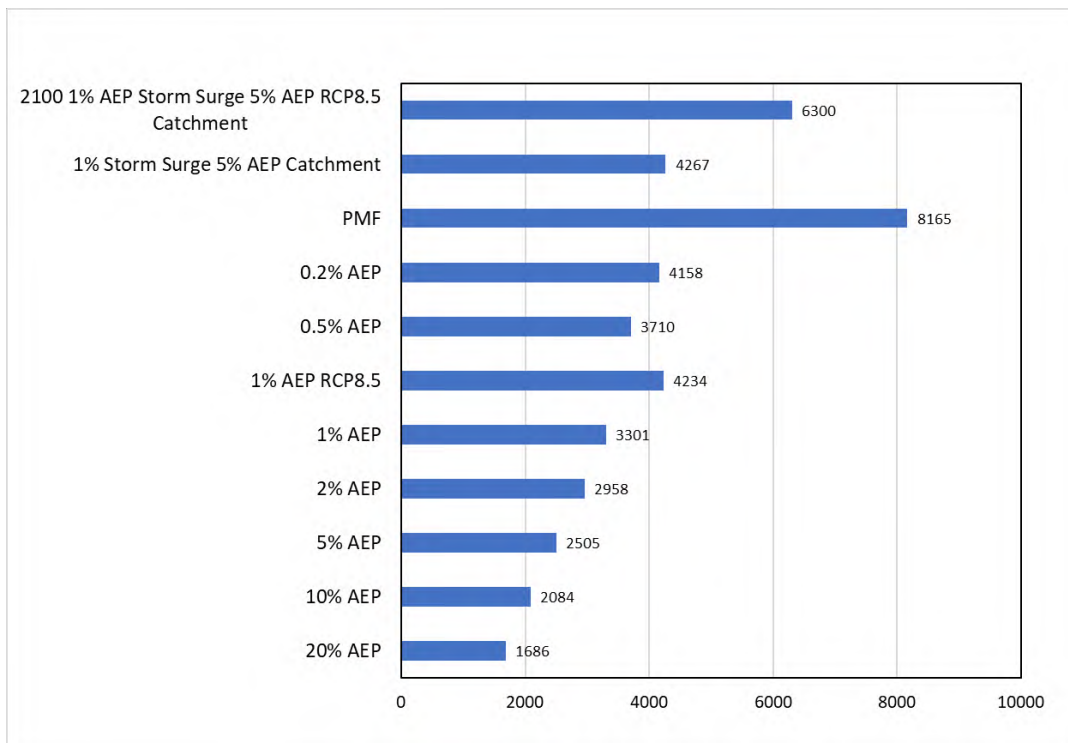


Figure 5-12 Population exposure by return period.

5.3 Future Development

This section explores the impact future development in the Toon Toon and Lowlands Lagoon catchment may have on flood behaviour. Development in the floodplain will ultimately result in changes to flood behaviour, however, it is important to manage this impact and ensure the risk and impact is acceptable.

Typically, future development is assessed on a case-by-case basis and may still result in very minor impacts that are not considered to be of an actionable level. However, minor non-actionable impacts on an individual scale can accumulate across the floodplain as development continues and cause larger impacts across the study area. Given this, it is important to assess the potential impacts from future development across a catchment scale. This provides a mechanism to understand the potential impact should all land available be developed to its maximum potential. This assessment aims to understand the potential impact from future development to inform land use planning changes and development controls to manage this risk.



5.3.1 Future Development Potential

Zoning layers available from the Fraser Coast Planning Scheme have been used to identify land available for future development. Land use zones have been categorised based on the level of development assumed and is described in Table 5-13 below.

Table 5-13 Future Development Zone Categorisation

Land Use	Development Categorisation
Low density residential	Low density residential
Medium density residential	Medium density residential
High density residential	High density residential
District centre	Commercial / Industrial
Low impact industry	Commercial / Industrial
Medium impact industry	Commercial / Industrial
Neighbourhood centre	Commercial / Industrial
Principal centre	Commercial / Industrial
Specialised centre	Commercial / Industrial
All other land use zones	No development

5.3.2 Design Flood Event

The defined flood event represents the event for which is used to set minimum habitable floor levels (1% AEP + 300 mm freeboard). The defined flood event for Fraser Coast is the 1% AEP design flood event.

This assessment has been conservative in its approach and has been completed for the 1% AEP Climate Change (TP05) catchment design flood event only. To provide a more informed understanding of potential impacts from future development, a design event smaller and larger than the 1% AEP Climate Change should be considered in addition to an assessment looking at a storm surge dominant event. However, this was out of the scope of this flood risk management study and instead is noted as a limitation.

5.3.3 Future Development Scenarios

Based on the above land use categorisation, lots across the floodplain have been identified based on their development potential. Three future development scenarios have been developed and assessed hydraulically.

A number of assumptions have been made to allow for this and there are limitations to the future development assessment. These are described below:

- Only the 1% AEP (TP05) Climate Change design flood event has been considered,
- No consideration of use of balanced cut and fill,
- No consideration of drainage infrastructure,
- Broad assumptions have been made around the total lot area that can be filled for residential and commercial development.

The three future development scenarios assessed are as follows:

- Future development scenario 1:
 - Considers the impact of residential development only.



- Assumes all residential lots (low, medium and high density) are filled to the 1% AEP 2100 RCP8.5 Climate Change + 300 mm to a total of 80% of the total lot size.
- Hydraulic roughness (Manning's 'n') has been modified to represent increased development across these lots.
- Future development scenario 2:
 - Considers the impact of both residential and commercial / industrial development.
 - Residential development as per future development scenario 1.
 - Assumed all commercial and industrial lots identified are filled to the 1% AEP flood level to a total of 100% of the lot size.
 - Hydraulic roughness (Manning's 'n') has been modified to represent increased development across these lots.
- Future development scenario 3:
 - Considers the impact of both residential and commercial / industrial development but protects the floodway from fill.
 - Any lots or area within the identified floodway was removed from the fill extent.
 - No consideration of development outcomes has been included as this was outside the extent of this assessment (e.g., how development would occur on lots where the floodway flows through the middle).

Figure 5-13 through to Figure 5-15 present lots identified for future development.

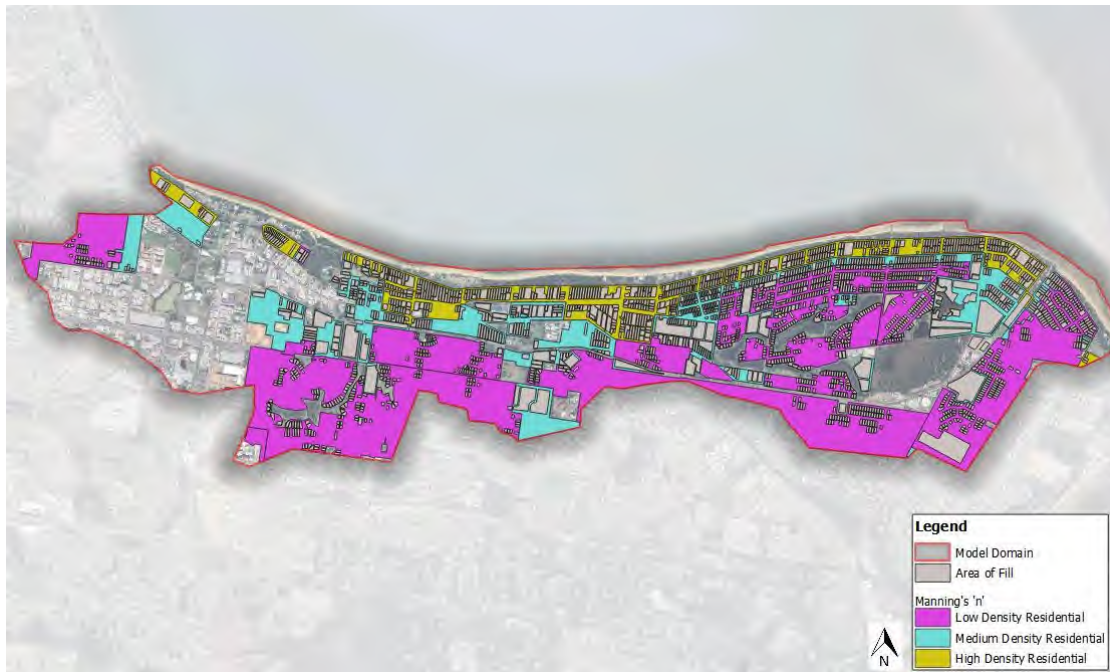


Figure 5-13 Future Development Scenario 1

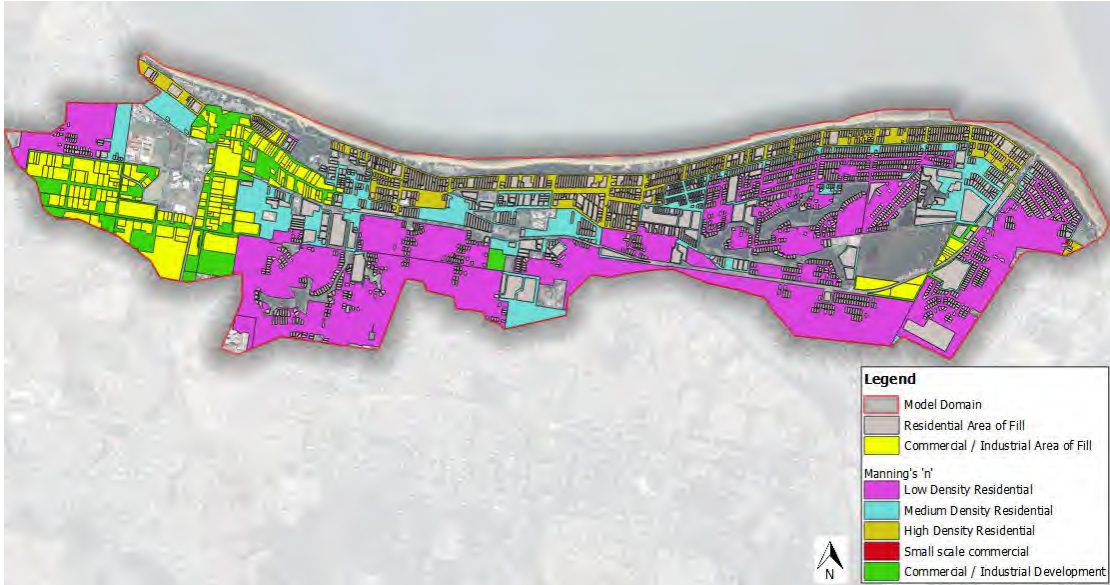


Figure 5-14 Future Development Scenario 2

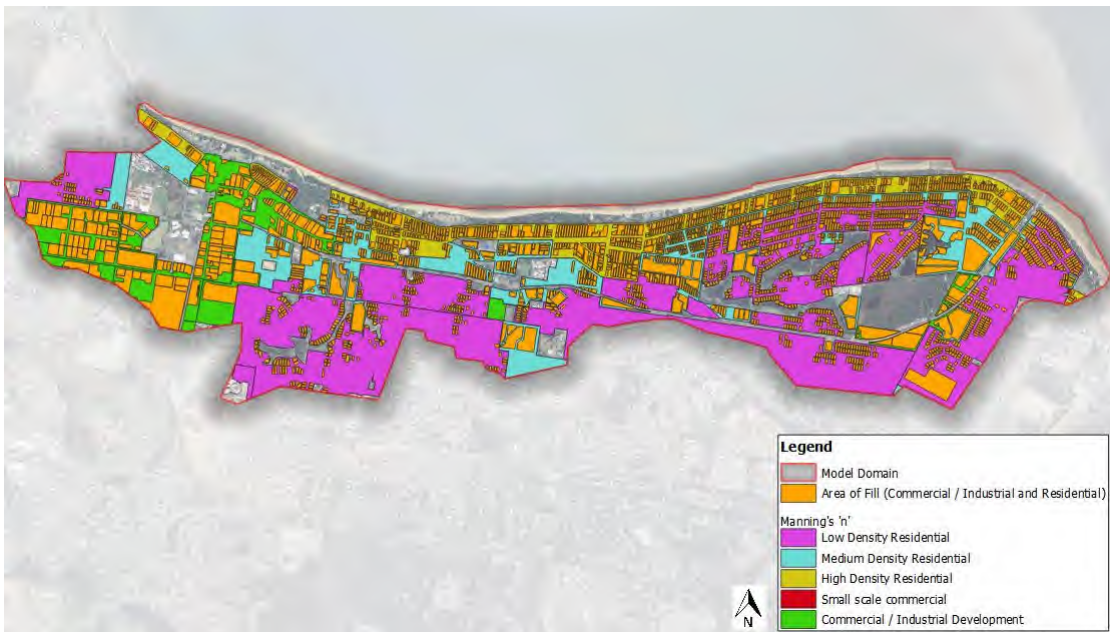


Figure 5-15 Future Development Scenario 3

5.3.3.1 Hydraulic Roughness (Manning's 'n')

Model hydraulic roughness was updated to reflect land use changes and future development for each development scenario. Table 5-14 below details the adopted Manning's 'n' values for the future development scenarios.



Table 5-14 Future Development Hydraulic Roughness (Manning's 'n')

Land Use Categorisation	Manning's 'n'
Low density residential	0.06
Medium density residential	0.1
High density residential	0.12
Small scale commercial	0.1
Commercial / industrial	0.12

5.3.4 Results

Future development scenarios have been modelled for the 1% AEP 2100 RCP8.5 Climate Change design flood event and compared to the current development 1% AEP 2100 RCP8.5 Climate Change design flood event. Results are presented as flood level impact maps and described below.

5.3.4.1 Future Development Scenario 1

The flood level impacts shown in Figure 5-16, show substantial impacts. There are large portions of newly impacted land across the study area, of which some includes residential property. Flood level impacts are widespread with some areas experiencing impacts of up to 0.43 m to residential property. Of note, the future development scenario 1 results in significant increases in extent and flood levels to the road network.

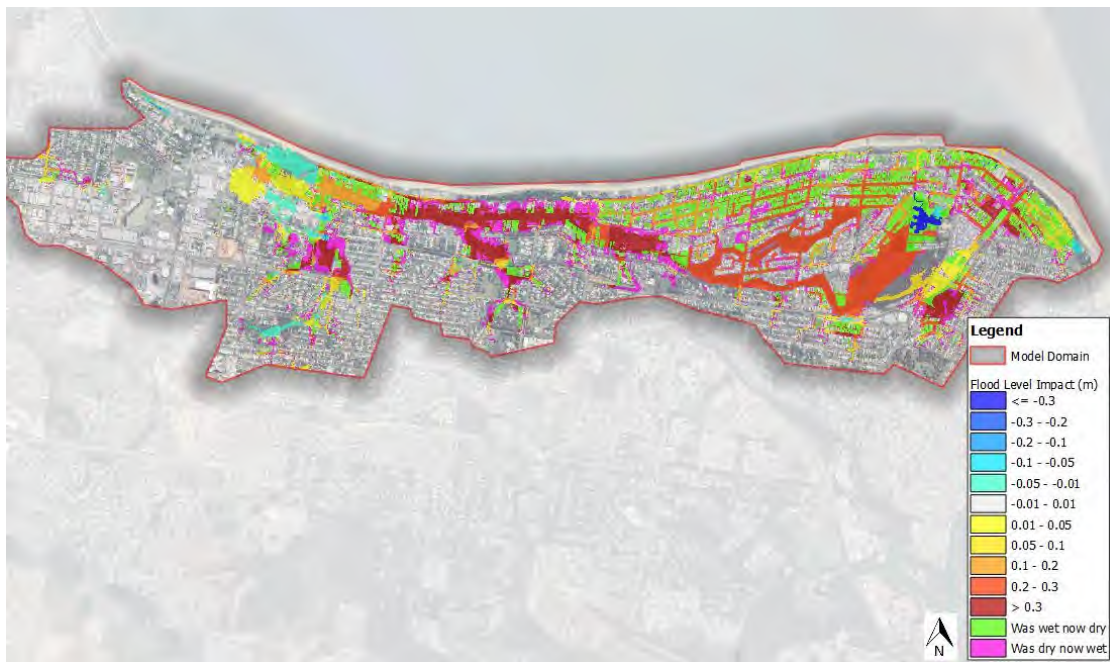


Figure 5-16 Future Development Scenario 1 Flood Level Impact (m)

5.3.4.2 Future Development Scenario 2

Future development scenario 2 considers the impact of both residential and commercial / industrial development. The results from this scenario are substantially more significant than seen in scenario 1 and are



shown in Figure 5-17. Increases to flood levels and newly inundated areas are now seen in the southwest of the study area in the vicinity of the commercial and industrial precinct.

Additionally, in the vicinity of Pialba Place between main Street and Taylor Street flood level impacts are seen of up to 1.3 m. Similar to what was seen in future development scenario 1, there are significant increases in flood levels and inundated areas to the road network.



Figure 5-17 Future Development Scenario 2 Flood Level Impact (m)

5.3.4.3 Future Development Scenario 3

Future development scenario 3 considers both residential and commercial / industrial development, and also protects the floodway from fill. This option still considers increases in hydraulic roughness to represent development across the entire lot available.

Flood level impacts for the future development scenario 3 are shown in Figure 5-18. This shows protecting the floodway will substantially decrease the impact from development across the floodplain. Within the Lowlands Lagoon areas, impacts are generally only up to 50 mm with a few areas of increased impact up to 0.1 m. Increases in flood levels are more significant in the Toosan Toosan Creek catchment, however, are generally less than 0.15 m to residential property. There are a few pockets of residential properties that experience increases in flood levels of up to 0.3 m.

The most significant increases in flood levels are seen between Main Street and Taylor Street, with the majority of that area experiencing increases in flood levels of between 0.2 m – 0.35 m. In addition, there industrial estate near Nissen Street and Beach Road experiences impacts of between 0.15 m – 0.35 m.



The results of the future development scenario 3 show that protection of the floodway will reduce impacts from future development. However, unacceptable flood level impacts are seen in the future development scenario 3. Further work is required to understand which areas of the floodplain are driving this impact to inform land use planning decisions and development controls in the study area. Additionally, this should be tested for a design flood event larger than the 1% AEP 2100 RCP8.5 Climate Change design flood event.



Figure 5-18 Future Development Scenario 3 Flood Level Impact (m)

5.3.5 Summary

The future development assessment shows that unmanaged development in the floodplain will have significant impacts including areas that were previously flood free newly flooded, increases in flood levels to property and the road network. Without managing future development on a catchment scale there is a risk development will increase the flood risk significantly for Toosan Toosan and Lowlands Lagoon.

There are options to manage impacts from development through adopting a risk based approach to land use planning. One of these options to prevent unacceptable impacts is by way of protecting the identified floodway from earthworks. The floodway is the areas of the floodplain that conveys a significant proportion of flood flow where partial blocking will adversely affect flood behaviour. Future development scenario 3 looked at impacts from future development where the floodway was protected from earthworks. This scenario shows that while protection of the floodway does reduce impacts, there are still areas of unacceptable impacts. This shows protection of the floodway is a good start, however, more consideration is needed to understand key areas that are sensitive to landform changes.



5.4 Community Vulnerability

Community vulnerability is an important aspect of a flood risk assessment, as it considers the population characteristics and how this may affect their ability to prepare, respond and recover from a flood event. Understanding social characteristics not only informs an understanding of flood risk but can also guide appropriate management measures tailored to the community's specific needs.

Factors included in an assessment of community vulnerability include awareness, physical vulnerability, socio-economic vulnerability and mobility. The vulnerability assessment methodology for the Toon Toon Creek and Lowlands Lagoon Coastal and Flood Risk Management Study has been adapted from the approach in the Brisbane River Strategic Floodplain Management Plan.

5.4.1 Types of Community Vulnerability

Vulnerability indices represent specific social attributes that can be used to assess community vulnerability. This information is available from the 2021 Australia Bureau of Statics (ABS) census records at the neighbourhood scale.

The types of vulnerability and indices considered in the assessment are described below.

It is important to note that this assessment considers the resident population and does not consider how tourism may impact community vulnerability.

5.4.1.1 Physical Vulnerability

The physical vulnerability type reflects the level of communities' vulnerability due to age and disability. The following indices were used:

- Percentage of population under 5 years,
- Percentage of population 65 years and over,
- Percentage of population 65 years and over, and living alone, and
- Percentage of population who require assistance with everyday living.

5.4.1.2 Economic Vulnerability

The economic vulnerability type reflects the level of communities' vulnerability due to financial capacity. The following indices were used:

- Percentage of population living in rental accommodation,
- Percentage of households with low household incomes (less than \$650/week), and
- Percentage of population who are unemployed.

5.4.1.3 Mobility Vulnerability

The mobility vulnerability type reflects the level of communities' ability to evacuate during a flood. The following indices were used:

- Average number of children under the age of 15,
- Percentage of households with no private vehicles,

Description of Vulnerability Methodology

Australian Bureau of Statistics (ABS) provides suburb and local area scale census data that can be used to inform vulnerability. Vulnerability indices were calculated at the Statistical Area 1 (SA1) scale, which is the finest resolution scale available for census data and can be generally described as 'neighbourhood scale'.

13 vulnerability indices across four vulnerability types namely, physical, social-economic, mobility and awareness were utilised.



- Percentage of single parent households, and
- Percentage of households with 5 or more people.

5.4.1.4 Awareness Vulnerability

The social and economic vulnerability type reflects the level of communities' vulnerability due to the inability, lack of awareness or barriers to access and/or understand flood warning information. The following indices were used:

- Percentage of population who are new to the area,
- Percentage of population with little or no English skills,
- Moved into the area within the last year, and
- Moved into the area within the last 5 years.

5.4.1.5 Calculating Combined Vulnerability

The calculation of relative community vulnerability involves a two-stage normalisation of data. The step-by-step approach to calculate relative community vulnerability is as follows:

- Vulnerability indices were calculated as a percentage of residents within that SA1 area.
- These percentages are ranked and normalised to assign each SA1 area a value of 0 to 1, with the value of 1 representing the highest percentage.
- The normalised values were summed for each vulnerability indices assessed within the corresponding vulnerability type.
- These final values were again normalised to provide a relative vulnerability for that vulnerability type.
- Repeat Step 1 to 4 for the remaining vulnerability types.

The four vulnerability types are summed and normalised again to highlight locations of combined relative vulnerability. The relative vulnerability for each vulnerability type and the combined vulnerability have been mapped across the study area in Figure 5-19 through to Figure 5-23.

5.4.2 Relative Community Vulnerability

The vulnerability analysis highlights areas of the catchment within the Fraser Coast Regional Council LGA that are relatively vulnerable based on the different criteria considered above. This is an important concept to understand in a spatial context as it affects the community's capacity to respond to flooding, may place additional burden on local disaster management and emergency services, and reduces overall resilience. These percentages across the catchment are used comparatively to prioritise suburbs for suitable mitigation responses as part of the community awareness and resilience work package.

Relative vulnerability has been calculated for the catchment for four vulnerability types and combined relative vulnerability. This is presented in Figure 5-19 to Figure 5-22, and the combined vulnerability shown in Figure 5-23. Highly vulnerable persons are exposed to varying degrees of vulnerability across the four vulnerability types:

- Highly vulnerable persons are those that are resident within the SA1 that represents the upper 20% of the relative vulnerability ranking for each indicator. In the normalised dataset, the score of these SA1s is 0.8 or above.



- Population within the SA1 has been calculated by multiplying the number of buildings by 2.27 as described in section 5.2.3.4. It is also assumed that for this analysis all persons within each SA1 have the same degree of vulnerability.



5.4.2.1 Physical Vulnerability

There are approximately 1,411 people within the upper 20% of relative physical vulnerability that are highly vulnerable and exposed to flooding. Figure 5-19 shows the distribution of the most vulnerable people across the catchment affected by physical factors such as age and disability.

For the SA1 areas identified as more physically vulnerable, the primary driver is either a higher percentage of people over 65 or living alone and over 65. There are a few SA1 areas that have also been identified as having higher percentages of children under 5, however, these range from 4 – 6%.

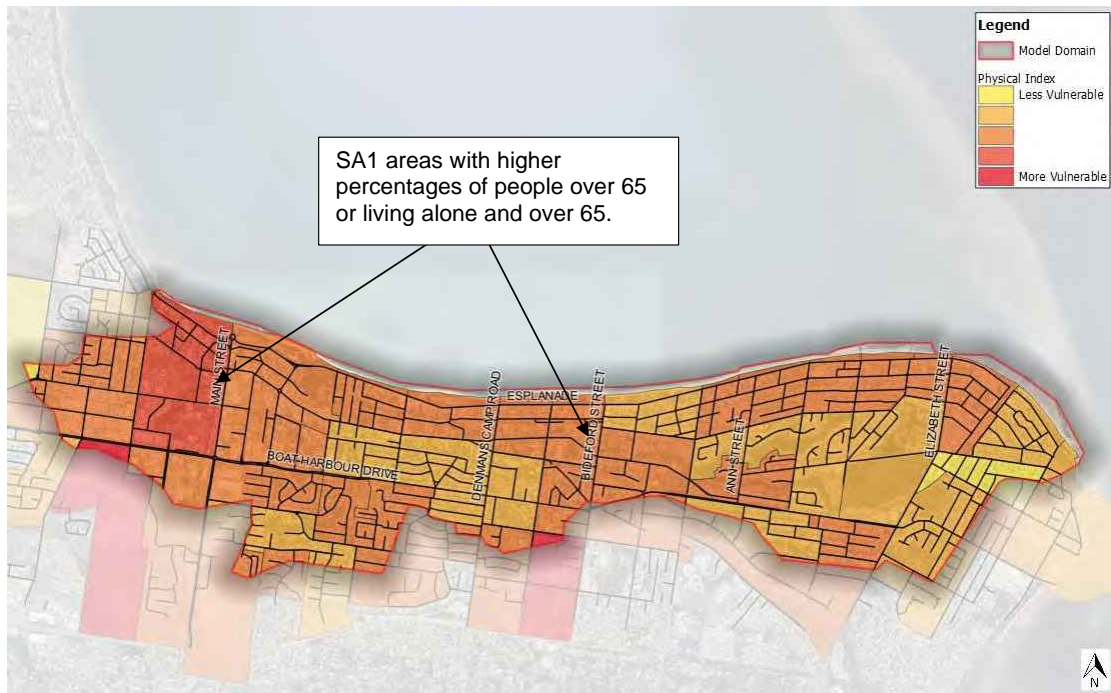


Figure 5-19 Community Vulnerability: Relative Physical Vulnerability



5.4.2.2 Social and Economic Vulnerability

There are approximately 3,268 people that are classified as highly vulnerable due to socio-economic factors that are exposed to flooding. Figure 5-20 shows the distribution of the most vulnerable people across the catchment affected by social and economic factors such as household income and unemployment.

For the SA1 areas identified as more economically vulnerable, the largest driver of this is the high percentage of households with a combined income of less than \$650 per week.



Figure 5-20 Community Vulnerability: Relative Economic Vulnerability



5.4.2.3 Mobility Vulnerability

There approximately 256 people that classified as highly vulnerable due to mobility factors that are exposed to flooding. Figure 5-21 shows the distribution of the most vulnerable people across the catchment affected by mobility factors such as lack of vehicle access and group households with more than 5 residents.

SA1 areas identified as having higher mobility vulnerability were largely driven by lone parent households and dwellings with more than 5 people. Some SA1 areas with moderate mobility vulnerability are flagged as they have a higher percentage of dwellings with no motor vehicles.



Figure 5-21 Community Vulnerability: Relative Mobility Vulnerability



5.4.2.4 Awareness Vulnerability

There are over 1,712 people within the upper 20% of awareness vulnerability that are considered to be highly vulnerable and exposed to flooding. Figure 5-22 shows the distribution of the most vulnerable people across the catchment affected by awareness factors such as lack of access to the internet or language.

The vulnerability assessment has been based on 2021 ABS census data. However, the statistics for the number of people without access to internet has not been captured since 2016. The justification for this is because it is assumed most people have a mobile phone with access to the internet and the question is less relevant. Subsequently, this information has been pulled from the 2016 ABS Census data and of note, there are a large percentage of people in Tooan Tooan and Lowlands Lagoon that do not have dwelling access to the internet (19 SA1 areas). While it is likely most have access to the internet via a mobile phone, when considering the generally older population in conjunction with this statistic, it becomes important when considering awareness vulnerability.

The biggest drivers of awareness vulnerability are dwelling access to internet, and higher percentages of people who moved into the area within the last year to 5 years.



Figure 5-22 Community Vulnerability: Relative Awareness Vulnerability



5.4.2.5 Combined Vulnerability

Highly vulnerable people may be classified as such due to a combination of factors described in this section. With regards to the overall combined vulnerability there are approximately 2,681 people in the floodplain that are in the upper 20% of relative vulnerability of all vulnerability types. Figure 5-23 shows the distribution of the most vulnerable people across the catchment affected by a combination of vulnerability types.



Figure 5-23 Combined Relative Vulnerability

5.4.3 Vulnerability compared to Queensland

While the above assessment looks at relative vulnerability across the study area, Table 5-15 compares vulnerability within the Fraser Coast LGA to the Queensland average. It should be noted that these factors are indicators only and do not provide the complete picture.

Fraser Coast has a much higher physical vulnerability compared to the Queensland average. Physical vulnerability impacts a person's ability to mobilise and evacuate quickly and is measured by age demographics and need for assistance. Fraser Coast has been identified as having higher physical vulnerability due to the older demographic. 30% of the Fraser Coast population is over 65 compared to the Queensland average of 17%. Additionally, 11% of the Fraser Coast population require assistance with everyday living compared to only 6% of the Queensland population.

Financial resilience is measured through employment and income statistics. Fraser Coast has higher percentages of low-income earners and slightly higher percentages of unemployment compared to the Queensland average. However, this could be slightly biased due to potentially a higher percentage of retired population.

While Fraser Coast has a similar awareness vulnerability to the Queensland average, this does not capture local context and insights from Council. The study area has not experienced a significant catchment or storm



surge event in some time and local knowledge of this is limited. Subsequently, there is a known awareness vulnerability in the area that is not captured when looking at the census statistics. When considering the known high awareness vulnerability and high physical vulnerability, it will be very important to consider flood risk management options targeted towards improving both flood awareness and education, and evacuation.

Table 5-15 Community Vulnerability for Fraser Coast Local Government Area compared to Queensland.

Vulnerability Factors	Fraser Coast LGA	Queensland
Physical		
Median Age	51	38
Percentage of population < 5	4%	6%
Percentage of population 65 and over	30.2%	17%
Percentage of population 65 and over, and living alone	7%	4%
Percentage of population who require assistance with everyday living	11%	6%
Economic Vulnerability		
Percentage of population living in rental accommodation	24.4%	33.1%
Percentage with low household incomes (<\$650/week)	25.5%	16.4%
Percentage of population unemployed	8.5%	5.4%
Mobility		
Average number of children in a family	1.8	1.8
Percentage of households with no vehicles	5.8%	5.7%
Percentage of single parent households	17.5%	16.8%
Percentage of households with 5 or more people	7%	10%
Awareness		
Percentage of population with little or no English	5.6%	15.6%
Moved into the area within last year	13%	14%
Moved into the area within last 5 years	36%	39%



5.5 Isolation

Isolation caused by flood waters can be a major risk especially for long durations, where critical services are cut-off or if persons isolated need emergency assistance and evacuation. Areas of isolation are an important element of overall flood risk that must have due consideration. An analysis of isolation was undertaken to provide flood intelligence to plan for pre-emptive evacuations during flooding, resupply operations, strategic land use planning responses and for community education and awareness. Isolation can be used in combination with other flood risk factors to prioritise for flood risk management treatment and to ensure suitable future land uses are commensurate with the risk.

The isolation component of flood risk detailed in this section is a critical component to highlighting and assessing potential emergency management and strategic land use planning responses. In particular, these datasets and processes are used extensively in developing the evacuation analysis, prioritisation and capability assessment. Isolation in this flood risk assessment has considered both road immunity, and low and high flood islands, as described in Section 5.5.1 and 5.5.2.

5.5.1 Flooded Road Immunity

The analysis of flooded roads identifies the first event in which the road is inundated. An overview map of the flood immunity is presented in Figure 5-24. The flooded road immunity shows locations across the catchment which may be affected by poor road flood immunity. Road immunity is an important concept for both emergency management and land use planning. It is possible to identify weakness in the network from this point of view and to identify areas that may pose a risk to public safety. This output is useful for high level assessment of drainage infrastructure upgrades and for identifying key evacuation routes that may require further investigation for upgrade.



Figure 5-24 Road network immunity



5.5.2 High and Low Islands

Flood islands are a unique, complex, and relatively dangerous situation that can develop during flood events. Flood islands develop when servicing roads to areas are cut (often multiple) and the area is then isolated via no means of vehicle transportation and likely pedestrian mobility.

Two types of flood islands can develop during flood events: low and high flood islands and these scenarios are shown below in Figure 5-26.

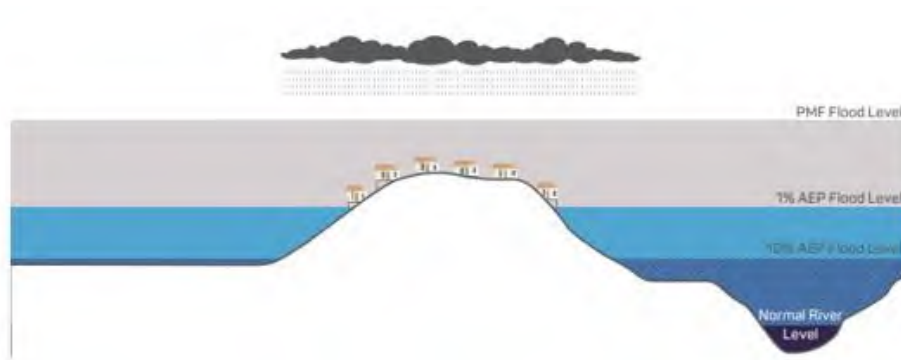


Figure 5-25 Low Flood Island (AIDR, 2017)

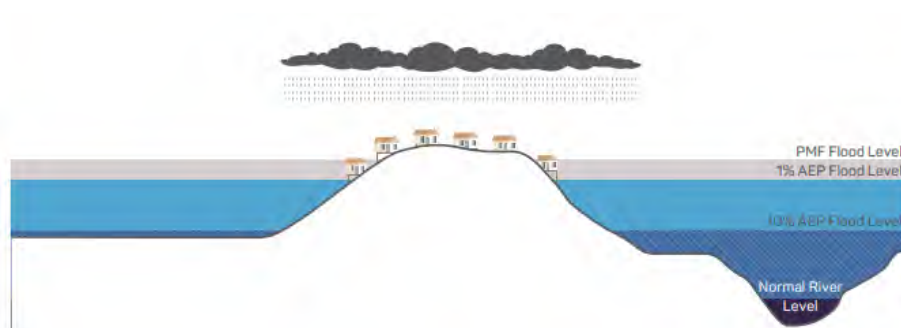


Figure 5-26 High Flood Island (AIDR, 2017)

5.5.2.1 High Flood Islands

High flood islands are classified by:

- Entry and exist roads to the island are flooded,
- As flood waters rise, a section of the flood island remains dry and immune in the PMF event,
- High islands will shrink to a small section of available PMF immune land and become a refuge during flood events where there is a safe section of land available,
- High flood islands eventually have added complexities and responses needed depending on the duration of flooding and the length of time the roads are cut. If roads are cut for a significant amount of time, resupply of essential items will be required, and the risk of critical health issues also becomes an issue,



- High flood islands require special attention with regards to emergency personnel access which can only be via air or boat, and
- High flood islands require the community to be aware and prepared, such as having emergency kits, resupply of their own medication and also the need to know the community around them as relocation may be necessary if no formal/informal area is available for relocation. This can add complexity when durations of flooding are very long (days).

5.5.2.2 Low Flood Islands

Low flood islands are classified by:

- Entry and exist roads to the island are flooded,
- As flood waters rise, eventually the entire island will submerge. Depending on the extent of flooding, this can obviously become a life-threatening situation,
- Low flood islands are very dangerous areas to be isolated as there is no way to evacuate and eventually the only method for evacuation is via air or boat. This is often highlighted during flood events in areas such as this with people stranded on roof tops,
- Low flood islands are further categorised by the event that the road inundates and the event that the island inundates. The lower the AEP for both inundation mechanisms generally mean the higher risk the flood island is, and
- Low flood islands can be further complicated as evacuation may be needed early, advanced and accurate flood forecasting systems are required and a level of community understanding, and awareness is also critical.

5.5.2.3 Flood Island Distribution

Outputs of the flood island analysis areas are shown in Figure 5-27, the spatial data also contains further information on the respective AEP inundation events which can be useful in prioritising mitigation responses to flood islands combined with other outputs such as time to inundation, vulnerability and hazard.

Table 5-16 below presents the number of lots impacted by flood islands for each land use. Only lots with more than 5% of the lot area have been included in this count.

Table 5-16 Lots within a flood island for each land use

Land Use	Impacted by a Low Flood Island	Impacted by a High Flood Island	Total Lots in Study Area
Low Density Residential	1100	495	3960
Medium Density Residential	490	380	1921
High Density Residential	795	313	1262
Low Impact Industry	24	15	175
Medium Impact Industry	15	1	39
District Centre	1	3	10
Neighbourhood Centre	1	1	2
Principal Centre	173	134	523
Specialised Centre	0	13	53
Community Facilities	15	7	36

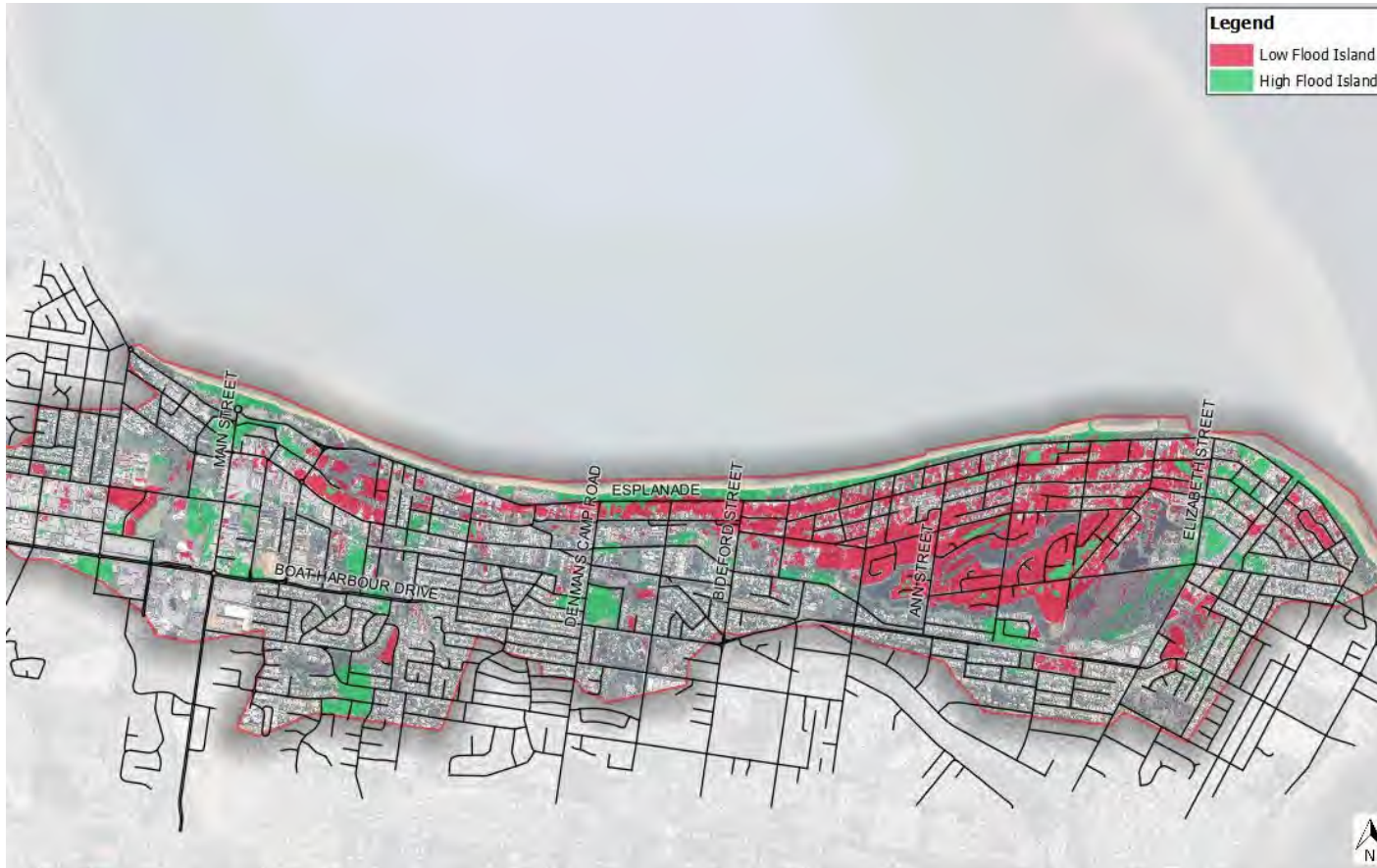


Figure 5-27 Flood Islands Overview

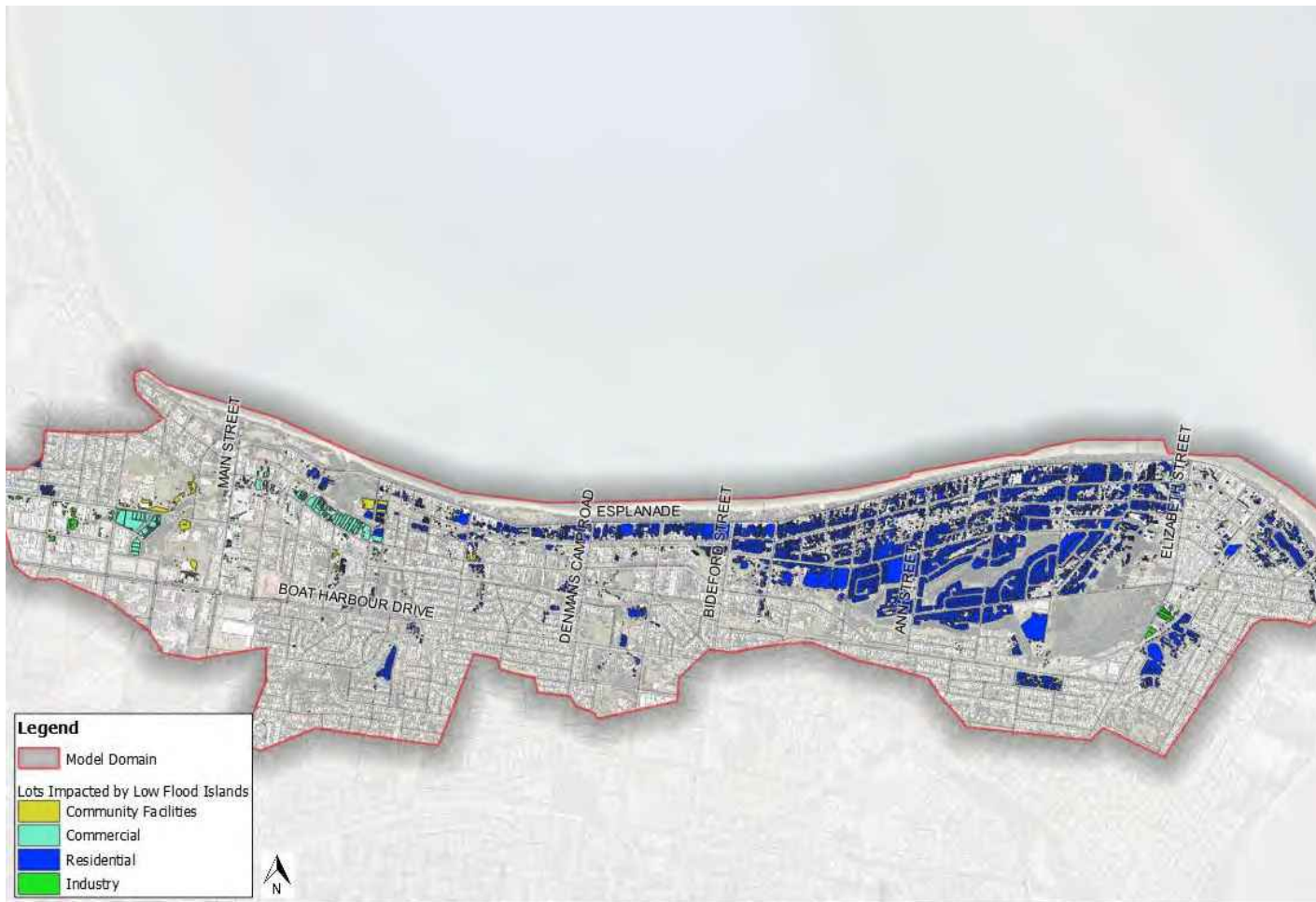


Figure 5-28 Lots exposed to Low Flood Islands by Land Use



5.5.3 Time to Inundation

The earliest time a road, building or asset is inundated with floodwaters is known as the Time to Inundation (TTI). The time to inundation provides important information around potential evacuation constraints and isolation and is an important factor to consider when defining flood risk for a study area. TTI helps Council to understand exposed road assets and the need for earlier action on road closures. In combination with other factors that affect flood risk, time to inundation can be used to inform disaster management and land use planning.

Where possible, time to inundation should always be linked back to a level at a gauge. This provides context for both the community and disaster managers and a trigger in which decisions around evacuation should be made. However, for the Tooan Tooan and Lowlands Lagoon study area, there are no gauges in the catchment. As such, the time to inundation is not linked back to any gauges and should be interpreted only as providing an indication of which areas that have more or less time to inundation.

Various published literature is available for considering what is an appropriate timeframe for flood warning and evacuation. Key considerations include:

- Flood warning and prediction that is available at the site and in the lead-up to instigating site evacuation procedures. The longer the advance warning, the greater the time for evacuation preparedness; and
- The evacuation trigger point, this being the point at which a decision is made to evacuate a site; and the actual time for evacuation of the site which is associated with mobilisation of site personnel.

A schematic timeline for evacuation is shown in Figure 5-29 from Opper, 2004.

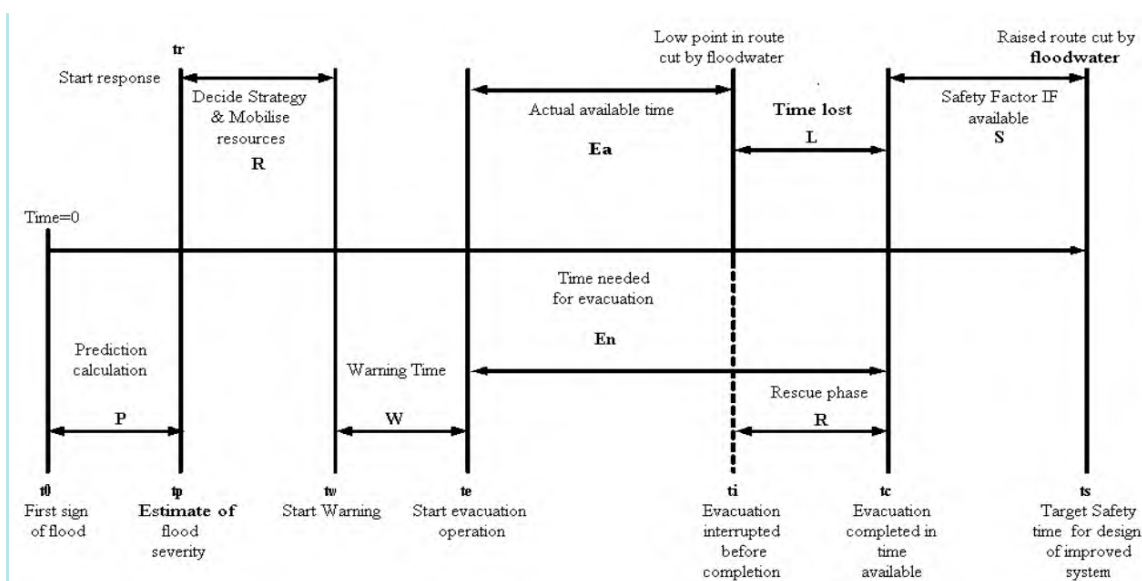


Figure 5-29 Schematic Timeline of Emergency Response for Flood Evacuation

Time to inundation has been mapped across the study area for the 1% AEP Storm Surge and 5% AEP Catchment Design Flood Event, and the 0.2% AEP Catchment Design Flood Event.

Time to inundation for the 0.2% AEP Design Flood Event is shown in Figure 5-30 and maps the time to when the flood depths are greater than 0.1 m. These figures show that the majority of the floodplain experiences inundation above 0.1 m in less than 30 min – 1 h. There are some small pockets, which may have 1 – 2 h time to inundation, however, 2 h is still considered to be very short potential warning time.



Figure 5-31 shows the 1% AEP Storm Surge and 5% AEP Catchment Event time to when the inundation depth is greater than 0.1 m. These figures show that under a storm surge event, there is considerably less time available with almost the entire area inundated showing less than 30 min time to inundation.

It is important to understand that because the time to inundation mapping for the Toosan Toosan and Lowlands Lagoon study area is not linked to a gauge, this does not represent warning time as it is not relative to a trigger. Subsequently, the actual warning time is expected to be substantially less than what is indicated on these maps. The Toosan Toosan and Lowlands Lagoon Study area is considered to have extremely short potential warning time available. Flash flooding is defined as flooding which peaks within 6 hours of the rain which causes it (AIDR, Manual 20, Flood Preparedness). The Bureau of Meteorology also defines flash flooding within their general glossary as anything less than 6 hours response time. Based on the time to inundation analysis, the entire study area can be classified as vulnerable to flash flooding.



Figure 5-30 0.2% AEP Time to Inundation above 0.1 m

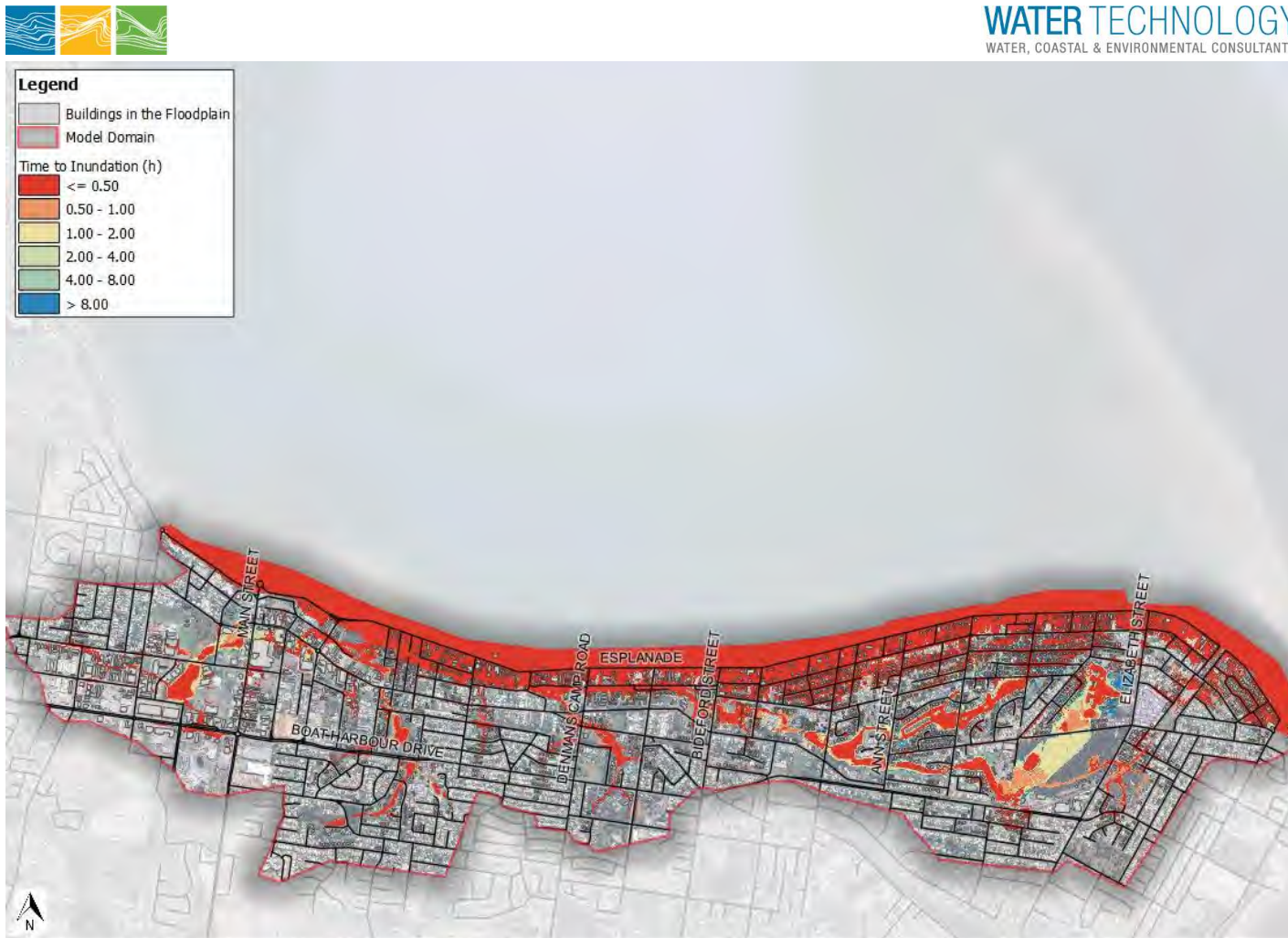


Figure 5-31 1% AEP Storm Surge and 5% AEP Catchment AEP Time to Inundation above 0.1 m



5.5.4 Duration of Inundation

Duration of flood inundation (DFI) by floodwaters is the length of time flood levels exceed a certain threshold. This helps identify property, roads and other assets that are exposed to a significant duration of flooding which may lead to highly stressful or life-critical situations, or structural damage. Additionally, it can inform disaster management requirements such as understanding resourcing needs for trapped residents (i.e., in high flood island locations, or apartment buildings), or when flooded road signs can be removed.

Figure 5-32 below maps the duration where the depth inundation is greater than 0.1 m across the study area for the 0.2% AEP Design Flood Event. This mapping shows the Lowlands Lagoon catchment is a slow draining system. The lake system within Lowlands Lagoon shows durations of inundation of greater than 15 hours. Additionally, the ponding seen in Lowlands Lagoon area south of the Esplanade behind the dune system, also shows duration of inundation of greater than 15 hours.

The duration of inundation for the Tooan Tooan Creek area is generally shorter than what is seen for Lowlands Lagoon. The series of lakes still experiences inundation for longer than 15 hours, however the duration of inundation for the flow path along Freshwater Street is generally between 4 hours and 12 hours. The fringe areas of the Tooan Tooan Creek floodplain show inundation generally only lasts less than 2 hours.

Figure 5-33 below shows the duration where the depth of inundation is greater than 0.1 m across the study area for the 1% AEP Storm Surge Design Flood Event and 5% AEP Catchment Design Flood Event. This map shows that along the Esplanade, inundation above 0.1 m is generally less than 2 hours. However, the trapped low areas behind the sand dunes in Lowlands Lagoon, and the Lowlands Lagoon Lake system experience longer durations of inundation of over 15 hours. Properties along McKean Road and some along the Freshwater Street flow path in the Tooan Tooan Creek catchment experience inundation for longer than 15 hours as well.



Figure 5-32 0.2% AEP Duration of Inundation above 0.1 m

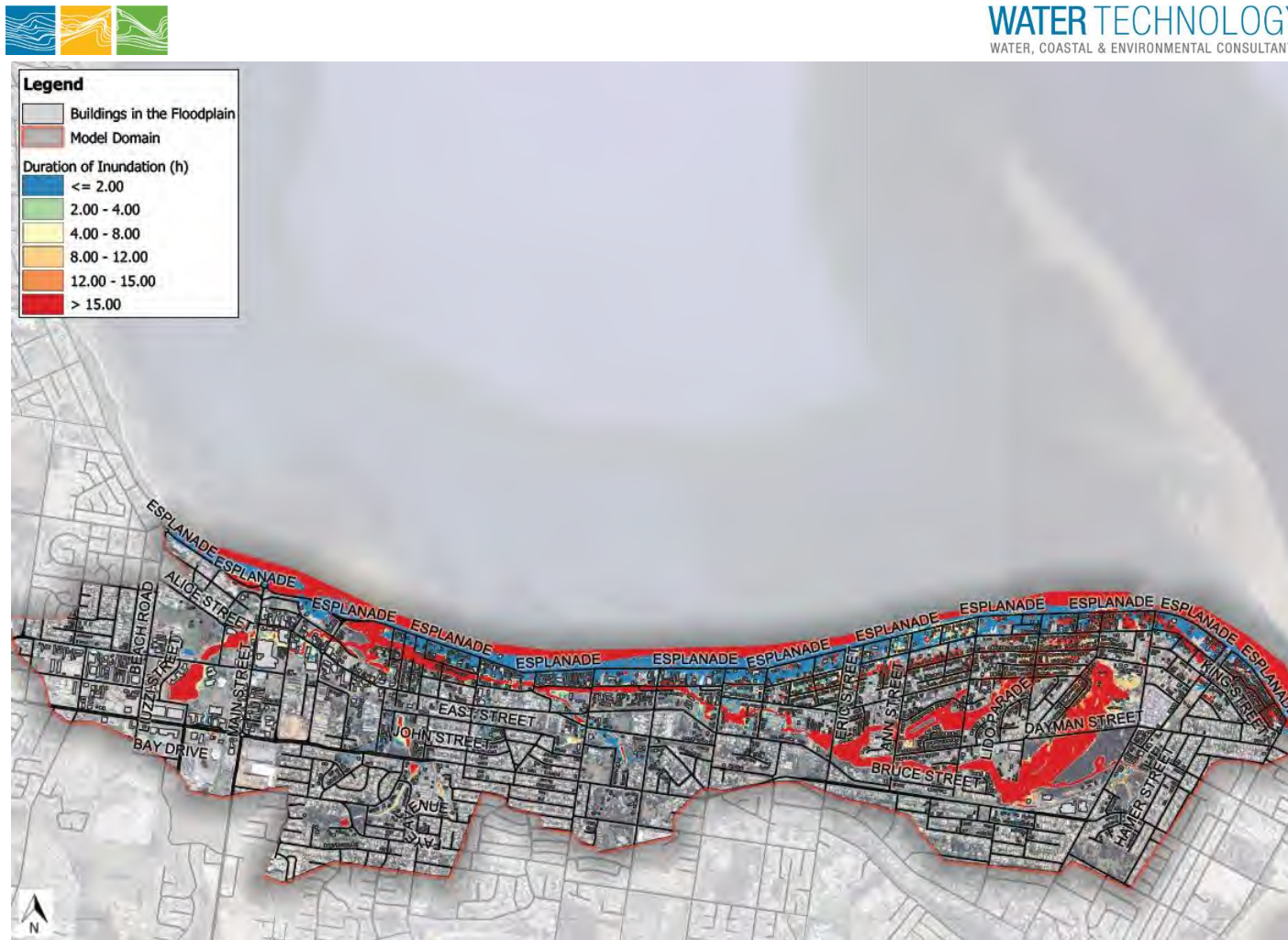


Figure 5-33 1% AEP Storm Surge and 5% AEP Catchment Duration of Inundation above 0.1 m



5.6 Economic Impact of Flooding

5.6.1 Overview

Economic assessments for floodplain management projects aim to quantify the existing and future flood risk in a catchment and provide a method of assessing the benefits associated with floodplain risk management measures. This is done by quantifying all tangible and intangible flood damages over a range of available design flood events. Tangible flood damages are defined as those which are easily quantifiable and there is a market value, such as property damages. Intangible damages are not easy to quantify, and it is difficult to determine a dollar value, such as environmental damages or health impacts.

Flood damages can be further categorised as either direct or indirect damages. Direct flood damages are a result of direct impact with floodwater such as damage to property or infrastructure, whereas indirect damages are caused by the flow on effects following a flood event, such as the clean-up costs. The Queensland Government released its Economic Assessment Framework of Flood Risk Management Projects (QRA, 2021) in 2021 and categorised flood damages as per the table illustrated in Figure 5-34. The economic assessment for the Toosan Toosan Creek and Lowlands Lagoon Coastal and Flood Risk Management Plan will adopt these definitions to ensure consistency.

The accepted approach for reporting flood damages is the Average Annual Damages (AAD). This considers the total damages from floods in a catchment over a range of design flood likelihoods and determines what the average cost of floods would be each year.

Table 1: Categories of flood damage

Direct tangible damage	Indirect tangible damage	Intangible damage
<i>Losses incurred as a result of the disaster event that have a market value</i>	<i>Any tangible flow-on effects, not directly caused by the natural disaster but arise as a consequence of the damage and destruction</i>	<i>Direct and indirect damage that cannot be easily priced</i>
<ul style="list-style-type: none"> • Property: <ul style="list-style-type: none"> – residential – commercial – industrial – public assets – community infrastructure – vulnerable facilities • Transport (damage to assets): <ul style="list-style-type: none"> – roads, rail, bridges – airports, train stations – passenger transport – active transport facilities along ports • Agriculture • Motor vehicles 	<ul style="list-style-type: none"> • Emergency costs • Alternative accommodation • Clean-up and rehabilitation • Business disruption • Disruption of public services and services to the community • Transport disruptions and indirect costs (travel time, delays, vehicle operating costs) 	<ul style="list-style-type: none"> • Mortality (loss of Life) • Morbidity (injury, stress and mental health, other flood-related health impacts) • Environmental values • Cultural, heritage, social and recreational values

Figure 5-34 Categories of Flood Damages as defined by the Queensland Economic Assessment Framework of Flood Risk Management Projects (QRA, 2021)

5.6.2 Methodology

5.6.2.1 Tangible Property Damage

Tangible flood damages to property are estimated using stage-damage-curves, which quantify the monetary damages as the flood depth increases. As part of the Brisbane River Strategic Floodplain Management Plan (BRSFMP) (Queensland Government, 2019), a comprehensive economic assessment was undertaken. This included the development of locally specific stage damage curves for the Brisbane River floodplain. The



Brisbane River locally specific stage damage curves were informed by a property damage survey of 96 properties comprising of 66 residential and 20 commercial properties. Region-specific stage damage curves for the Fraser Coast region were not available, therefore the Brisbane River SFMP stage damage curves represent the most recent and suitable basis for flood damage estimation.

For full reference to the research and application of the BRSFMP method please refer to the *Brisbane River Strategic Floodplain Management Plan Technical Evidence Report*. A summary of the method used, and the unmitigated flood damages results tables are provided in this section.

5.6.2.2 Intangible Flood Damages

Intangible damages however are more complex as they result from the human and social impact of flooding. Quantifying these impacts is difficult and there are varying methods proposed within literature. The BRSFMP assessed the available research and adopted an uplift factor to account for intangible damages.

Table 5-17 Intangible Uplift Factor to the Total Tangible Residential Damages adopted by the BRSFMP.

AEP	Uplift Factor
20%	0
10%	0
5%	0
2%	0.7
1%	1.2
0.5%	1.7
0.2%	2.3
0.001% (notional PMF)	4.6

5.6.2.3 Actual and Potential Damage

Actual damage incurred in flood events is nearly always less than potential damage calculated via flood damage curves. A number of factors affect the ratio of potential to actual damages and are primarily associated with the amount of warning time available whereby residents are able or not able to prepare their house for floods (taking protective measures outside or moving contents and valuable items to higher ground).

Research in this space is complex as it is associated with human behaviour during flood events. There is merit for further investigation with regards to exploring the difference in damages between riverine and flash flooding scenarios, however, this is beyond the scope of this study. In the absence of regional-specific research, the same approach adopted in the Brisbane River SFMP has been used to estimate actual damages.

This approach applies a ratio of potential to actual damages across all flood frequencies and depths. Essentially this provides a ratio of 0.8 and reduces the damages by 20% across the study area. For risk aware communities with longer lead times, or flash flooding catchments the ratio or potential to actual damages could be smaller or larger respectively. However, without locally specific research or guidance, there is no justification to modify this ratio.

5.6.2.4 Indirect Flood Damages

Indirect flood damages were estimated by applying a percentage of the direct actual damages for both residential and commercial properties. The adopted percentage was 15% of the direct damage for residential properties and 55% of direct damage for commercial properties. This approach is consistent with the BRSFMP.



5.6.3 Building Classification and Floor Levels

Building datasets were filtered by removing structures less than 80 square metres. This allows structures such as small to medium size sheds and ancillary structures to be removed and not counted in flood damage assessment. Whilst some larger structures such as sheds may be included, increasing the filter would also remove structures such as auxiliary dwellings (granny flats etc) from premises. However, it is still likely that damages are elevated due to numerous structures such as sheds being included. Where residential properties had a building footprint area of greater than 600 m², these were converted to commercial as per the approach adopted in the Brisbane River SFMP.

5.6.4 Existing Flood Damages

The following section presents the results of the damage assessment using the adopted BRSFMP methodology and the various outputs described above. Ultimately whilst total damages per magnitude of flood event is an important aspect to consider and understand, the Average Annual Damages (AAD) is the defining factor of how much flood damages are expected to cost the catchment community each year on average.

Reducing these average annual damages is an important aspect of floodplain management to reduce the overall impact of flooding. This target is not an isolated goal and is part of a multi-pronged approach to flood management across all work packages. Damages are used in the flood mitigation works and flood resilient materials prioritisation (where reducing damages is a primary aspect of these structural and non-structural measures).

5.6.4.1 Residential Damages

The results of the total residential tangible damages are detailed below in Table 5-18. Of note in the residential damages is the following:

- There are generally very high damages in more frequent flood events. Damages are consistent in rising scale until the PMF.

Table 5-18 Total Residential Damages

AEP (1 in X)	Properties affected	Properties flooded above floor	Direct Tangible	Indirect Tangible	Total Tangible Residential
5	430	27	\$2,424,347	\$363,652	\$2,788,000
10	555	41	\$3,262,837	\$489,426	\$3,752,262
20	686	58	\$4,621,732	\$693,260	\$5,314,992
50	855	101	\$7,181,235	\$1,077,185	\$8,258,421
100	987	134	\$9,568,513	\$1,435,277	\$11,003,790
200	1145	184	\$12,873,481	\$1,931,022	\$14,804,503
500	1382	272	\$18,824,751	\$2,823,713	\$21,648,463
PMF	3317	2413	\$195,150,161	\$29,272,524	\$224,422,685

5.6.4.2 Commercial and Industrial Damages

The results of the total commercial and industrial tangible damages calculations are detailed below in Table 5-19.

Of note in this damage class is the following:



- Unlike the residential damage, commercial and industrial damages are small in comparison in the lower magnitude events;
- Similar to residential damages, damages consistently increase until the 1 in 50 AEP flood event, where damages rise considerably (more than triple); and
- Again, in the 1 in 500 AEP event, there is a very large increase in damages. In addition, the 1 in 2000 AEP event also has a significant increase in damages which is unlike the residential damages.

Table 5-19 Total Commercial and Industrial Damages

AEP (1 in X)	Properties affected	Properties flooded above floor	Direct Tangible	Indirect Tangible	Total Tangible Commercial / Industrial
5	41	41	\$10,262,514	\$5,644,383	\$15,906,897
10	56	56	\$12,538,456	\$6,896,151	\$19,434,608
20	81	81	\$14,676,173	\$8,071,895	\$22,748,068
50	93	94	\$16,183,061	\$8,900,683	\$25,083,744
100	108	109	\$17,605,405	\$9,682,973	\$27,288,378
200	138	138	\$20,038,630	\$11,021,246	\$31,059,876
500	162	162	\$22,870,644	\$12,578,854	\$35,449,498
PMF	419	419	\$97,072,171	\$53,389,694	\$150,461,864

5.6.4.3 Total Property Damages

Table 5-20 presents the total property damages and shows the study area has an average annual damages for property damages of \$14.4 million. Figure 5-35 shows how total flood damages are distributed by land use for each design flood event.

Figure 5-36 presents a heatmap of average annual damages for residential properties only. Areas identified as darker pink represent areas where there are higher densities of residential properties with relatively high average annual damages.

Table 5-20 Total Property Damages

AEP (1 in X)	Properties affected	Properties flooded above floor	Total Tangible Damages	Intangible Damages	Total Damages
5	471	68	\$18,694,897	\$-	\$18,694,897
10	611	97	\$23,186,870	\$-	\$23,186,870
20	767	139	\$28,063,060	\$-	\$28,063,060
50	948	195	\$33,342,164	\$5,780,894	\$39,123,059
100	1095	243	\$38,292,168	\$13,204,549	\$51,496,717
200	1283	322	\$45,864,379	\$25,167,655	\$71,032,034
500	1544	434	\$57,097,962	\$49,791,466	\$106,889,427
PMF	3736	2832	\$374,884,549	\$1,032,344,351	\$1,407,228,901
Average Annual Property Damages			\$12,929,147	\$1,471,605	\$14,400,751

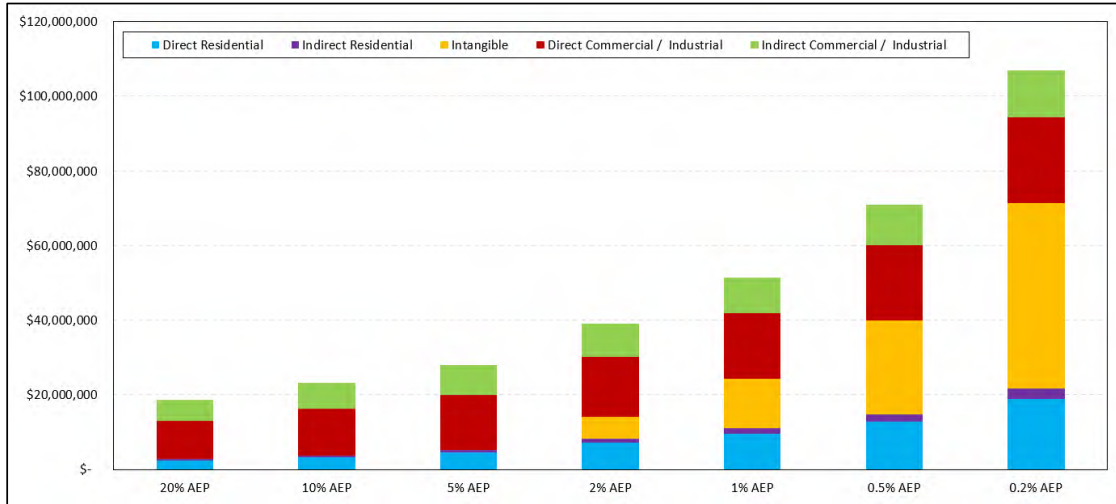


Figure 5-35 Total Flood Damages by Land Use



Figure 5-36 Average Annual Damages Heatmap for Residential Properties



5.6.4.4 Other Direct Tangible Damages

5.6.4.4.1 Motor Vehicles

The Queensland Economic Assessment Framework of Flood Risk Management Projects (QRA, 2021) provides average insurance claim values for three price ranges of motor vehicles, as presented in Table 5-21. These indicative values can be used to estimate the flood damages as a result of damage to motor vehicles. Based on economic indicators available for the study area from the 2021 Australia Bureau of Statics (ABS) compared to the Queensland average, it has been determined the low price range is likely to be most representative of average vehicle costs. Using an average of 1.7 motor vehicles per residential dwelling, and the average insurance claim per vehicle available, the potential flood damages to motor vehicles can be estimated.

The actual damage incurred as a result of motor vehicles can vary based on how prepared a community is and timing available. If flood warnings are communicated early and the community act to move their vehicles to higher ground, the actual damage to motor vehicles would be less than the potential damage. The Multi-Coloured Manual recommends assuming one quarter of all properties would have no vehicles present during a flood event (Penning-Roswell et.al., 2013). Given the relatively short warning time available in the study area, this could be a slight underestimation.

Table 5-21 Average Insurance Claim per Vehicle based on recommended values in the Queensland Economic Assessment Framework of Flood Risk Management Projects (QRA, 2021)

Price Range	Average Insurance Claim per Vehicle (2022 Values)
Low	\$4,940
Mid	\$9,879
High	\$14,819

Potential and actual total flood damages to motor vehicles in the study area is presented in Table 5-22.

Table 5-22 Total Flood Damages to Motor Vehicles

AEP (1 in X)	Residential Dwellings Impacted	Potential Total Damages to Motor Vehicles	Actual Total Damages to Motor Vehicles
5	430	\$2,124,024	\$1,593,018
10	555	\$2,741,473	\$2,056,105
20	686	\$3,388,559	\$2,541,420
50	855	\$4,223,350	\$3,167,513
100	987	\$4,875,376	\$3,656,532
200	1145	\$5,655,832	\$4,241,874
500	1382	\$6,826,515	\$5,119,886
PMF	3317	\$16,384,623	\$12,288,467
Average Annual Motor Vehicle Damages			\$1,105,544

5.6.4.4.2 Road and Rail

Impacts from flooding to road and rail include both the physical damages to the infrastructure, and also the disruption caused by delays to traffic. There is no rail within the Toon Toon and Lowlands Lagoon study



area, subsequently only damages to road is relevant. The extent of damages is dependent on the size and type of flooding and the impact flooding has on the wider network. Flood damages for road and rail can be estimated either using a unit reconstruction cost per km of road or rail inundated, or where unit values are not available can be estimated based on a proportion of residential flood damages informed by previous flood events.

The Multi Coloured Manual (Penning-Roswell et.al., 2013) recommends quantifying road damages as 15.9% of total tangible residential damages. However, the manual notes this value is based on the most significant flood events in England and Wales and will not be reflective of road damages experience in all floods (Penning-Roswell et.al., 2013). It is likely this proportion overestimates damages in more frequent events and underestimates damages for less frequent events. Estimated road damages within the Toon Toon and Lowlands Lagoon study area are detailed in Table 5-23 below.

Table 5-23 Total Flood Damages to Road

AEP (1 in X)	Total Damages to Road
5	\$443,292
10	\$596,610
20	\$845,084
50	\$1,313,089
100	\$1,749,603
200	\$2,353,916
500	\$3,442,106
PMF	\$35,683,207
Average Annual Road Damages	\$371,099

5.6.4.4.3 Aquatic Infrastructure

In addition to road damages, there will also be damages incurred as a result of flood damage to aquatic infrastructure in the area including piers, jetties and boat ramps. Quantifying these damages would be difficult and require specialist knowledge of both coastal processes and economic impacts as a result. Subsequently, this economic assessment has not attempted to quantify the flood damages to aquatic infrastructure. Where a floodplain management option is identified for further detailed assessment, and it may have an impact on aquatic infrastructure in the area, a more detailed should be done to quantify these flood damages.

Identified aquatic infrastructure:

- Stormwater beach outlets,
- Revetment walls,
- Stormwater detention basins,
- Urangan Pier,
- Torquay Jetty,
- Scarness Jetty,
- Two boat ramps identified through aerial analysis, and
- Two groyne structures located in Urangan.



5.6.4.5 Other Indirect Tangible Damages

5.6.4.5.1 Emergency Costs

Emergency management costs represent the incurred costs as a result of increased staff hours, administration, and materials associated with responding to a flood event. This impacts local and state agencies, and not-for-profit organisations that provide support. The costs associated with emergency costs is typically much larger in more extreme events than frequent events. The Queensland Economic Assessment Framework of Flood Risk Management Projects (QRA, 2021) recommends using average costs per residential property impacted as a way to estimate flood damages for emergency management and are presented in Table 5-24.

Table 5-24 Emergency Costs based on Design Events as per the Queensland Economic Assessment Framework of Flood Risk Management Projects (QRA, 2021)

Design Event	Emergency Costs per Residential Property Impacted (2022 Values)
5% AEP	\$49
2% AEP	\$795
1% AEP	\$3,479
PMF	\$15,370

Total flood damages as a result of emergency management costs are shown in Table 5-25.

Table 5-25 Total Flood Damages as a Result of Emergency Costs

AEP (1 in X)	Dwellings impacted	Total Emergency Costs
5	430	\$-
10	555	\$-
20	686	\$33,848
50	855	\$679,817
100	987	\$3,433,867
200	1145	\$7,441,748
500	1382	\$12,584,083
PMF	3317	\$50,983,273
Average Annual Emergency Management Damages		\$152,883

5.6.4.5.2 Clean-up Costs

The Queensland Economic Assessment Framework of Flood Risk Management Projects (QRA, 2021) provides average clean-up costs per property based on low, medium and high values, and are detailed below in Table 5-26. The medium average values have been used to estimate flood damages as a result of clean-up costs.



Table 5-26 Clean-up Costs per Property based on recommended values in the Queensland Economic Assessment Framework of Flood Risk Management Projects (QRA, 2021)

Clean Up Costs per property (Low – Med)	Clean-up Costs per Property (2022 Values)
Low	\$6,668
Mid	\$7,957
High	\$9,247

Total flood damages as a result of clean-up costs are presented below in Table 5-27.

Table 5-27 Total Flood Damages as a Result of Clean-up Costs

AEP (1 in X)	Dwellings impacted	Total Clean-up Costs
5	471	\$3,747,781
10	611	\$4,861,771
20	767	\$6,103,074
50	948	\$7,543,305
100	1095	\$8,712,994
200	1283	\$10,208,924
500	1544	\$12,285,720
PMF	3736	\$29,727,622
Average Annual Clean-up Damages		\$2,612,727



5.6.5 Total Average Annual Flood Damages

The total average annual damages (AAD) for the Toonan Toonan Creek and Lowlands Lagoon study area is \$18,643,000.

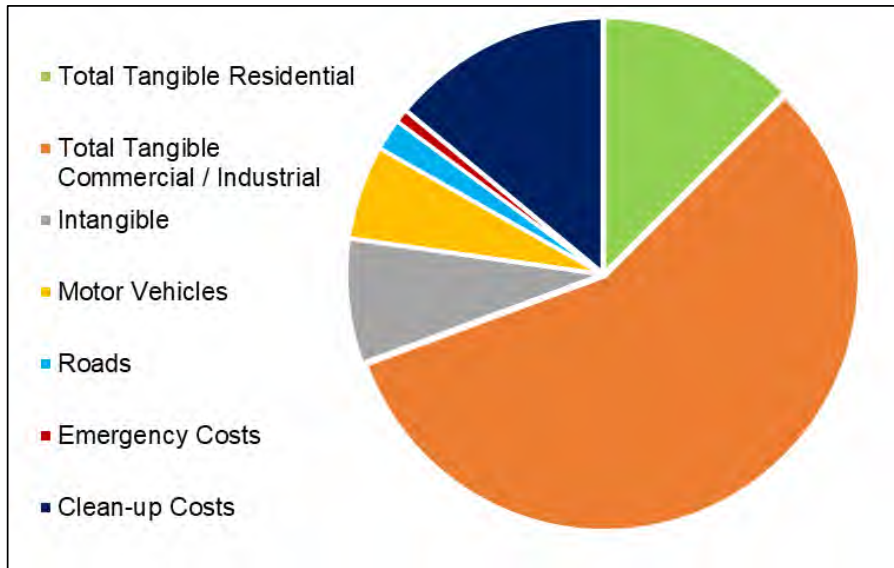


Figure 5-37 Total Average Annual Flood Damages

5.6.6 Storm Surge and Climate Change Damages

Property flood damages have also been estimated for storm surge dominant events and under climate change. The results of the property flood damages for storm surge and climate change are detailed below in Table 5-28. The results of the 1% AEP existing design event have also been included for comparison. Figure 5-38 shows a heatmap of total residential property damages for the 5% AEP Catchment and 1% AEP Storm Surge design flood event. This shows the highest density of total residential damages under a storm surge dominated flood event is seen along the Esplanade.

Table 5-28 Total Property Damages – Climate Change and Storm Surge

Event	Properties affected	Properties flooded above floor	Total Tangible Damages	Intangible Damages	Total Damages
1% AEP	1095	241	\$33,441,727	\$11,531,938	\$44,973,665
1% AEP RCP 8.5	1581	483	\$55,403,305	\$25,342,901	\$80,746,206
5% AEP Catchment 1% AEP Storm Surge	1638	738	\$107,586,823	\$62,806,150	\$170,392,973
5% AEP RCP8.5 Catchment 1% AEP 2100 Storm Surge	2712	2206	\$393,337,596	\$280,507,240	\$673,844,835



Figure 5-38 Residential Total Property Damages Heatmap for the 1% AEP Storm Surge and 5% AEP Catchment Event



5.7 Hot Spot Identification

5.7.1 McKean Road

Properties along McKean Road have been identified as a hot spot location. This is due to both the flood risk from catchment dominated events and storm surge flood events. Figure 5-39 and Figure 5-40 show which events properties are first inundated above floor in catchment dominated events and storm surge dominated events. Note, that only 1% AEP and 1% AEP Climate Change storm surge events have been modelled. Some properties may be inundated above floor level in more frequent storm surge events.

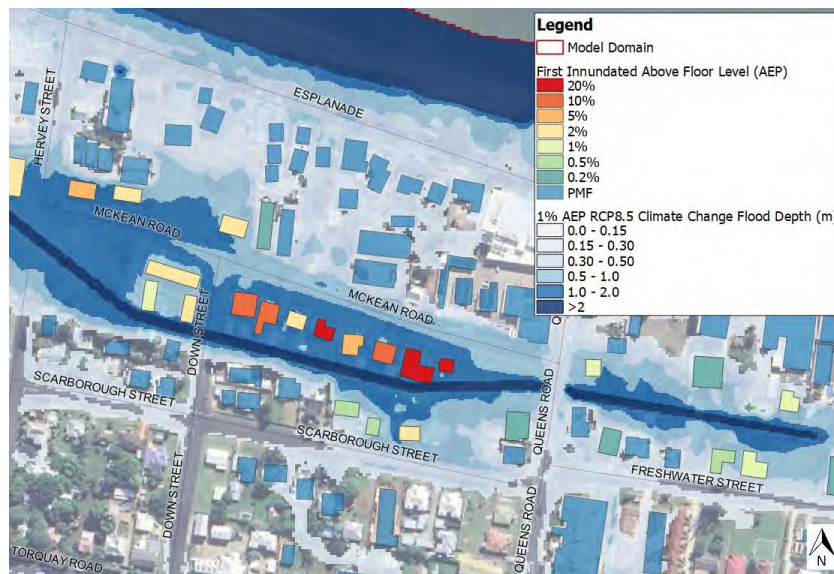


Figure 5-39 McKean Road Hot Spot – Event First Inundated Catchment Dominated

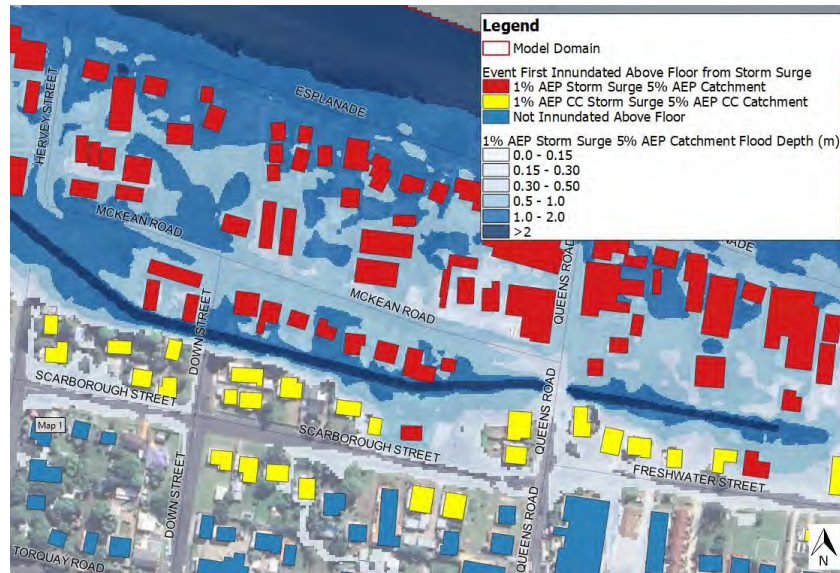


Figure 5-40 McKean Road Hot Spot – Event First Inundated from Storm Surge

Figure 5-39 shows some properties along McKean Road are flooded above floor in events as frequent as the 20% AEP design flood event. While there are accuracy limitations with the floor level estimates, being impacted this frequently still increases the flood risk. In addition to this, properties along the beach front are subject to very high flood hazards of H5 and H6 during storm surge events, as can be seen in Figure 5-41. Flood hazards in this range pose risks to life, are not safe for people or vehicles and can cause structural damage to buildings. The flood hazard is not as extreme in catchment dominated events, however, McKean Road still experiences hazards of H3 and H4 in the 1% AEP RCP8.5 Climate Change design flood event.

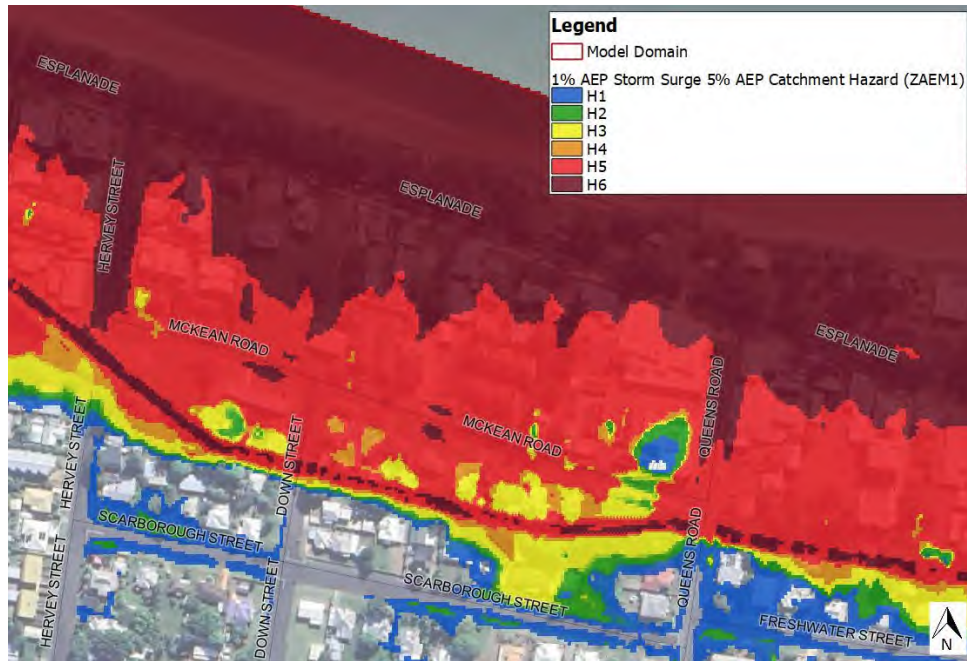


Figure 5-41 1% AEP Storm Surge and 5% AEP Catchment Flood Hazard (ZAEM1)

The community vulnerability analysis shows McKean Road is located in an SA1 area that has been identified as having high relative combined vulnerability and economic vulnerability when compared to other areas of the floodplain. In combination with having high economic vulnerability, McKean Road has some of the highest tangible average annual damages for property across the study area. Figure 5-41 below maps tangible average annual damages for property and shows that five of the properties located on McKean Road have an individual tangible AAD of greater than \$10,000.

A small portion most west along McKean Road is located within a low flood island. However, while the remaining hot spot area is not located within either a low or high flood island road trafficability is poor. McKean Road itself is inundated and not trafficable in events as frequent as the 20% AEP. Connecting roads namely, Queens Road and the Esplanade have improved immunity. Queens Road provides rising road access and provides an evacuation route for the hot spot area for design events smaller than the 0.5% AEP.

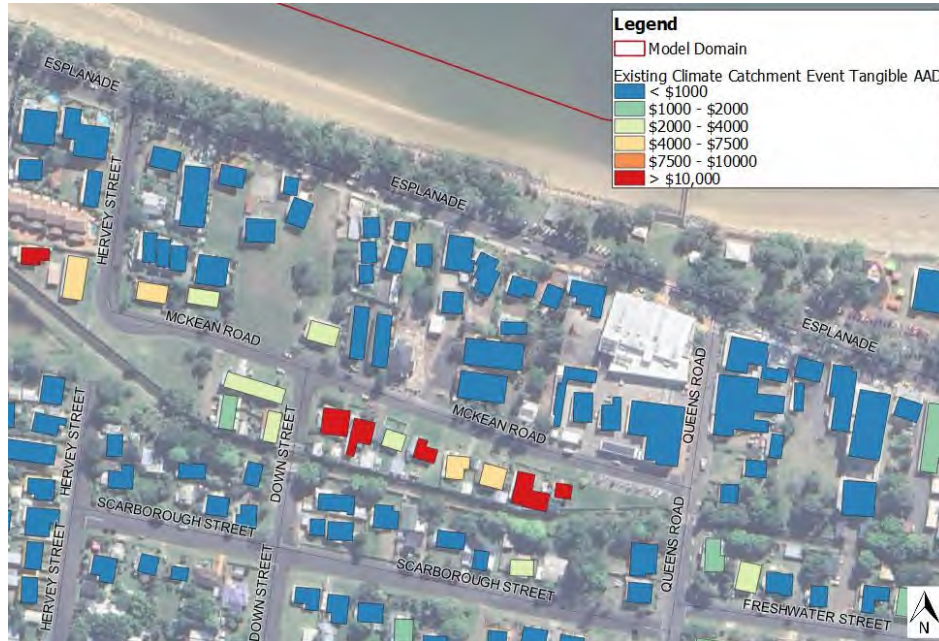


Figure 5-42 Existing Climate Catchment Event Tangible Property Average Annual Damages

Table 5-29 Summary of McKean Road Hot Spot Flood Risk Factors

Risk Factor	Qualitative Assessment
Catchment Dominated Flood Behaviour	Medium – Flood depths of greater than 1 m and hazards of between H3 and H5 in the 1% AEP RCP8.5 design flood event. Experience inundated in design events as frequent as the 20% AEP.
Storm Surge Dominated Flood Behaviour	High – Very high hazards of H5 and H6 that pose risk to life, are unsafe for people and vehicles and could result in structural damage to buildings in the 1% AEP Storm Surge and 5% AEP Catchment Design Flood Event.
Isolation and Evacuation	Medium – A small location of the hot spot area is within a low flood island. McKean Road itself has low trafficability, however, Queens Road offers a potential rising road access.
Exposure	High – Buildings along McKean Road experience above flood inundation in events as frequent as the 20% AEP design flood event.
Vulnerability	High – identified as having relatively high economic and combined vulnerability when compared to other SA1 areas in the catchment.
Flood Damages	High – identified as having some of the highest relative tangible flood damages (> \$10,000 in average annual damages) across the catchment.



Risk Factor	Qualitative Assessment
Land Use	Medium – residential properties with high exposure to flooding.

5.7.2 North of Cypress Street, Freshwater Street, and Campbell Street

The land north of Cypress Street, Freshwater Street and Campbell Street, as shown in Figure 5-43 below, is exposed to storm surge inundation. The properties identified in red in Figure 5-43, are properties that experience flood inundation above the floor level in a 1% AEP storm surge event in combination with a 5% AEP catchment event.

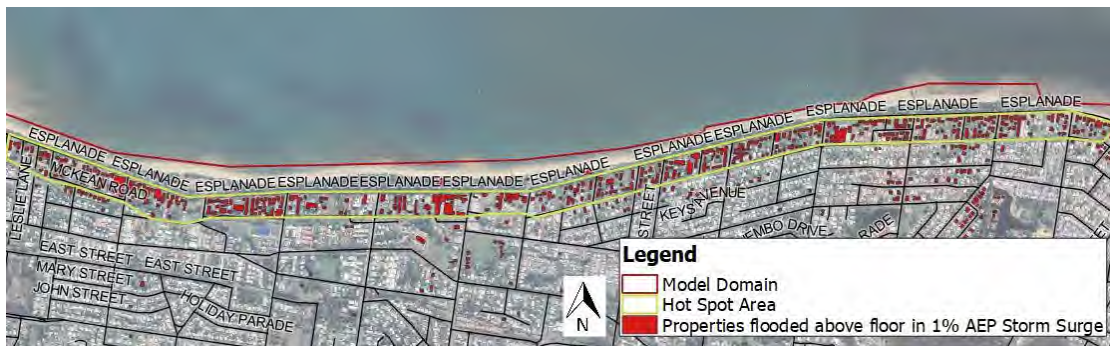


Figure 5-43 Cypress Street, Freshwater Street and Campbell Street – Properties inundated above floor level in the 1% AEP Storm Surge and 5% AEP Catchment Event

Storm surge events can be characterised as having very high velocities and hazards which increase the risk to these properties exposed. Figure 5-44 below shows the hydraulic hazard in this area and shows a large portion of the area is subject to H5 and H6 hazard. Flood hazards in this range pose risks to life, are not safe for people or vehicles and can cause structural damage to buildings.

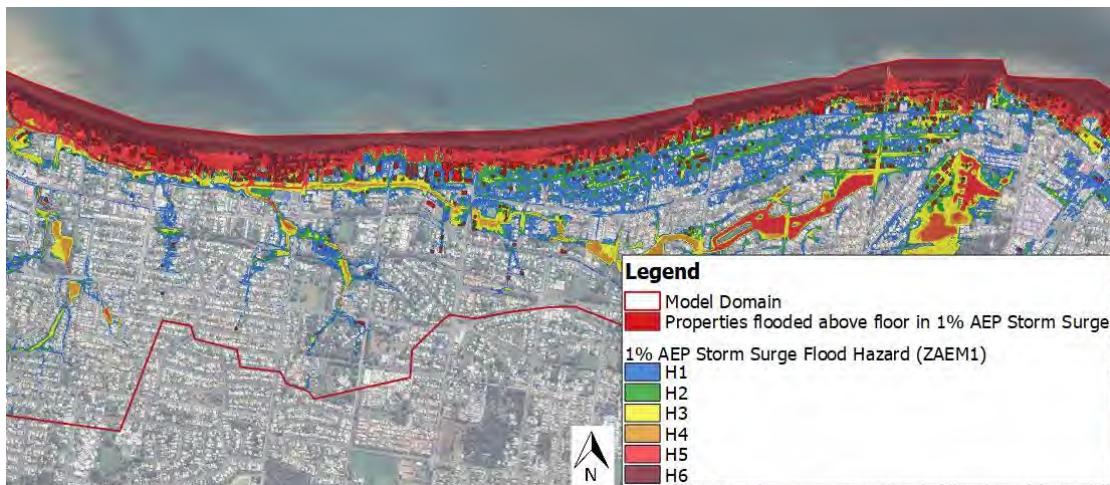


Figure 5-44 Hydraulic Hazard for the 1% AEP Storm Surge and 5% AEP Catchment Event



Average annual damages cannot be estimated for storm surge flooding conditions, as there are only the 1% AEP storm surge and 2100 1% AEP storm surge available. However, Figure 5-46 maps total property damages for the 1% AEP storm surge and 5% AEP catchment event. In this event, the majority of properties north of the Cypress Stret, Freshwater Street and Campbell Street are estimated to have total property damages of above \$50,000.

This hot spot area is not as exposed to catchment dominated flooding, as can be seen in Figure 5-47 below which shows the majority of properties north of Cypress, Freshwater and Campbell Street are only subject to above floor flooding in the PMF event under catchment dominated conditions. However, a large portion of this hot spot area has evacuation constraints and is considered either part of a high or low flood island. The area north of the waterway and lake systems is trapped by both the waterway to the south and the ocean to the north. Figure 5-45 shows catchment dominated islands and road immunity.



Figure 5-45 Low and High Flood Islands and Road Trafficability

Table 5-30 Summary of Cypress, Freshwater and Campbell Street Hot Spot Flood Risk Factors

Risk Factor	Qualitative Assessment
Catchment Dominated Flood Behaviour	Low – The majority of the hot spot area is not flood prone in the 1% AEP. There are some small locations of ponding towards the east of the area. However, there is a small area towards the west of the hot spot area near the Toonan Toonan Creek outlet where flood depths do reach up to 0.8 m. This is relatively a small area when compared to the hot spot area.
Storm Surge Dominated Flood Behaviour	High –Very high hazards of H5 and H6 that pose risk to life, are unsafe for people and vehicles, and could result in structural damage to buildings in the 1% AEP Storm Surge and 5% AEP Catchment Design Flood Event.
Isolation and Evacuation	High – The majority of this hot spot area is within a low flood island area. This is worsened by poor road trafficability with sections of roads likely to be used for evacuation not trafficable in events as frequent as the 20% AEP.



Risk Factor	Qualitative Assessment
Exposure	High – The majority of properties in the hot spot area experience above floor flooding in the 1% AEP Storm Surge and 5% AEP Catchment Event.
Vulnerability	Medium – The area west of Bideford Street and between Robert and Ann Street have comparatively high combined vulnerability.
Flood Damages	Medium – relatively low tangible damages under a catchment dominated event compared to other (< \$1,000 in average annual damages). However, in the 1% AEP Storm Surge and 5% AEP Catchment Event properties in this area experience property damages of over \$50,000.
Land Use	Medium – residential properties with high exposure to flooding.



Figure 5-46 Total Property Flood Damages for the 1% AEP Storm Surge and 5% AEP Catchment Event.



Figure 5-47 Event First Inundated Above Floor Catchment Flooding



5.7.3 Commercial Precinct near Hunter Street and Main Street (Pialba Place Shopping)

The commercial precinct near Hunter Street and Main Street (Pialba Place Shopping Centre) has largely been identified as a hot spot due to the very high flood damages. All buildings impacted in this area are commercial or industrial buildings, subsequently the risk is less compared to if it was residential homes. With that said, the impact of a significant commercial precinct being inundated and damaged, is that people may lose their income and businesses. This causes significant tangible and intangible damages. Figure 5-48

The flood depth in the 1% AEP design flood event ranges from 0.2 m to 0.8 m across the hot spot area. Flood hazard in the hot spot area ranges from H1 to H5. It is generally between H1 and H3 in the vicinity of buildings with a few buildings subject to higher flood hazards.

Main Street and Hunter Street have varying degrees of trafficability, however, portions of the road are no longer trafficable in a 20% AEP design flood event. Additionally, Torquay Road is no longer trafficable in the 5% AEP design flood event. Hunter Street does provide rising road access when travelling south up to the PMF. However, while there may be some constraints around access and egress given this is a commercial precinct the risk associated with limited evacuation access is reduced.

Table 5-31 Summary of Commercial Precinct near Hunter Street and Main Street (Pialba Place Shopping) Hot Spot Flood Risk Factors

Risk Factor	Qualitative Assessment
Catchment Dominated Flood Behaviour	Medium – Flood depths are up to 0.8 m in the 1% AEP design flood event. Flood hazards range from H1 to H5, however, near buildings the flood hazard is generally less than H3.
Storm Surge Dominated Flood Behaviour	Low – Flood depths range from 0.1 m to 0.4 m in the 1% AEP storm surge and 5% AEP catchment event. However, given the type of buildings vulnerable, flood damages are still very high.
Isolation and Evacuation	Low – The area is not considered a low or high flood island area. Rising road access via Hunter Street travelling south. However, Main Street and Hunter Street in the immediate vicinity of Pialba Place is no longer trafficable in the 20% AEP and 5% AEP design events respectively. Given the land use, the risk associated with evacuation is considered to be lower.
Exposure	High – a large portion of the properties identified in this hot spot area are inundated above floor level in the events more frequent than the 2% AEP design flood event.
Vulnerability	Low – While the combined vulnerability is high for this area, given the development is commercial, the relative vulnerability is considered low.
Flood Damages	Very High – tangible property damages are the highest in this area compared to the rest of the study area. This is due to the type of development in this area.
Land Use	Low – Commercial precinct with no residential or vulnerable uses.

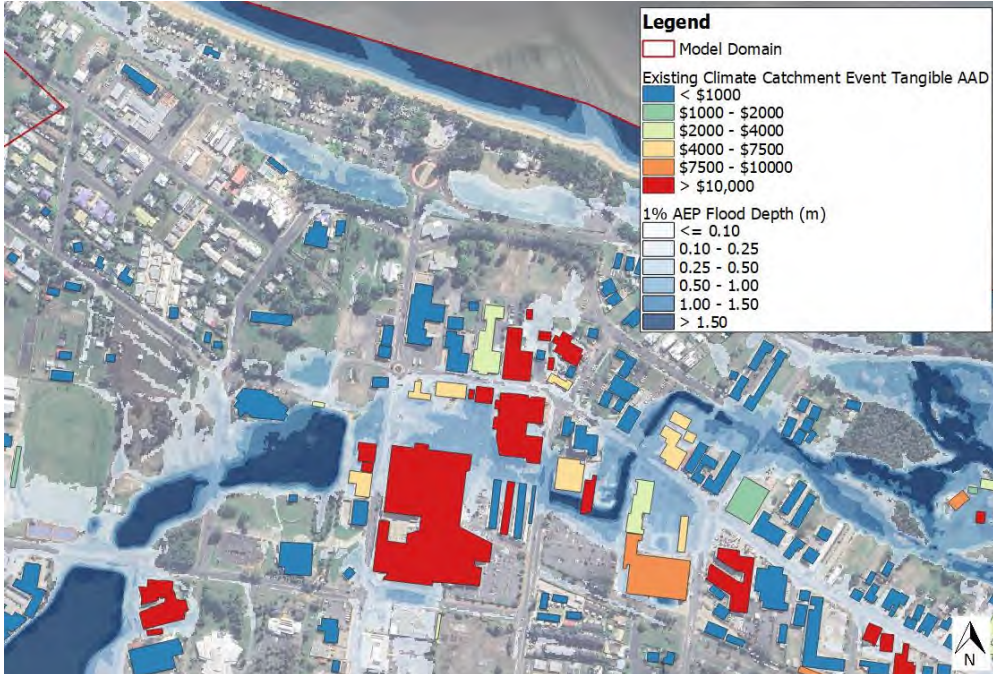


Figure 5-48 Existing Climate Catchment Event Tangible Property Average Annual Damages

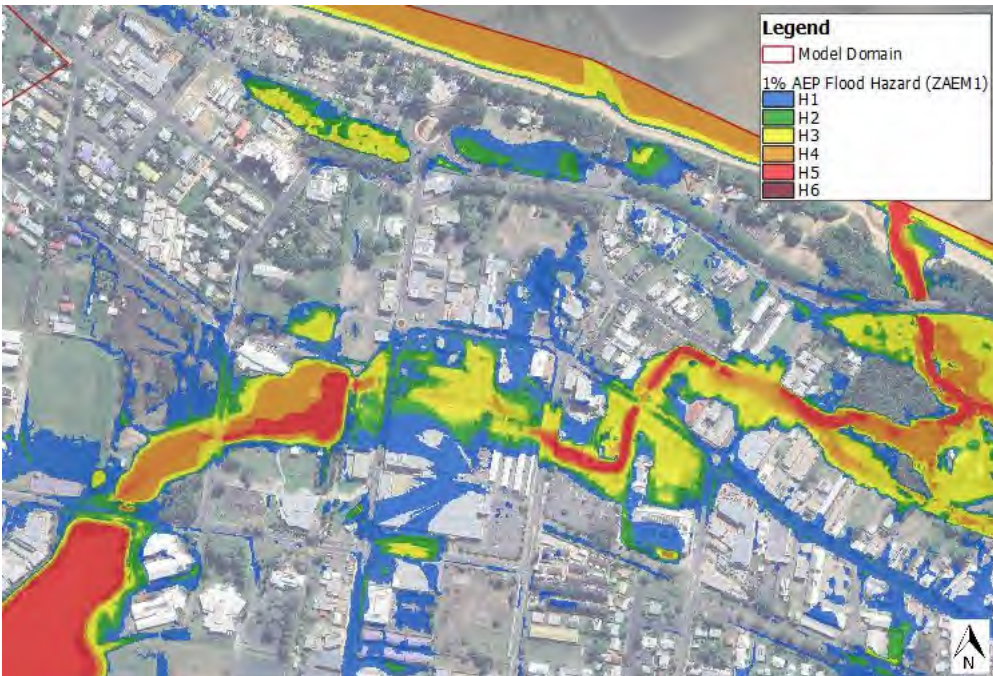
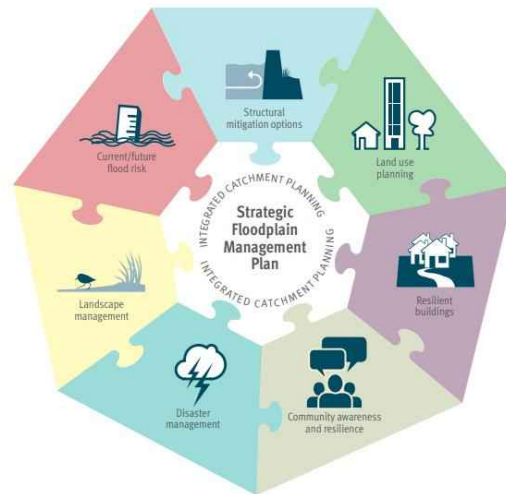


Figure 5-49 1% AEP Design Flood Hazard



6 FLOODPLAIN MANAGEMENT OPTIONS IDENTIFICATION

The Tooan Tooan Creek and Lowlands Lagoon Coastal and Flood Risk Management Plan aims to identify floodplain management options to reduce and manage the flood risk across the study area. The Queensland Flood Risk Management Framework provides a multi-disciplinary and integrated approach to flood risk management. This approach encourages engagement with a wide range of floodplain practitioners and to consider the full range of floodplain management option including structural mitigation options, property modification, land use planning, community awareness and resilience, disaster management and landscape management practices.



Our approach to floodplain risk management adapts these measures into an integrated, adaptable application of a holistic suite of risk reduction measures that are identified through a risk-based, catchment and community-centric options identification process.

The available options will be assessed quantitatively and qualitatively using fit-for-purpose multi-criteria assessment and cost-benefit metrics.

In considering the range of flood risk reduction measures, it is beneficial to understand the contextual application of each measure. The following section seeks to introduce and provide an overview of each type of flood risk management measure and discuss preliminary options for consideration.

6.1 Assessment of Structural Options

The process of identifying and assessing structural options includes the following:

- Identification of a long list,
- Qualitative assessment to understand previous modelling results and constraints that would prevent the option from moving forward. This assessment identified options that should proceed to the preliminary assessment,
- Preliminary assessment of options hydraulically for the 1% AEP catchment event and the 1% AEP storm surge and 5% AEP catchment event. Options identified as showing benefits or potential will proceed to the detailed assessment,
- Detailed assessment of options and combined options. This phase includes assessing options under all design flood events, economic assessment to estimate a benefit-cost ratio and full multi-criteria assessment.

Figure 6-1 below presents the proposed approach to assessing identified structural options.

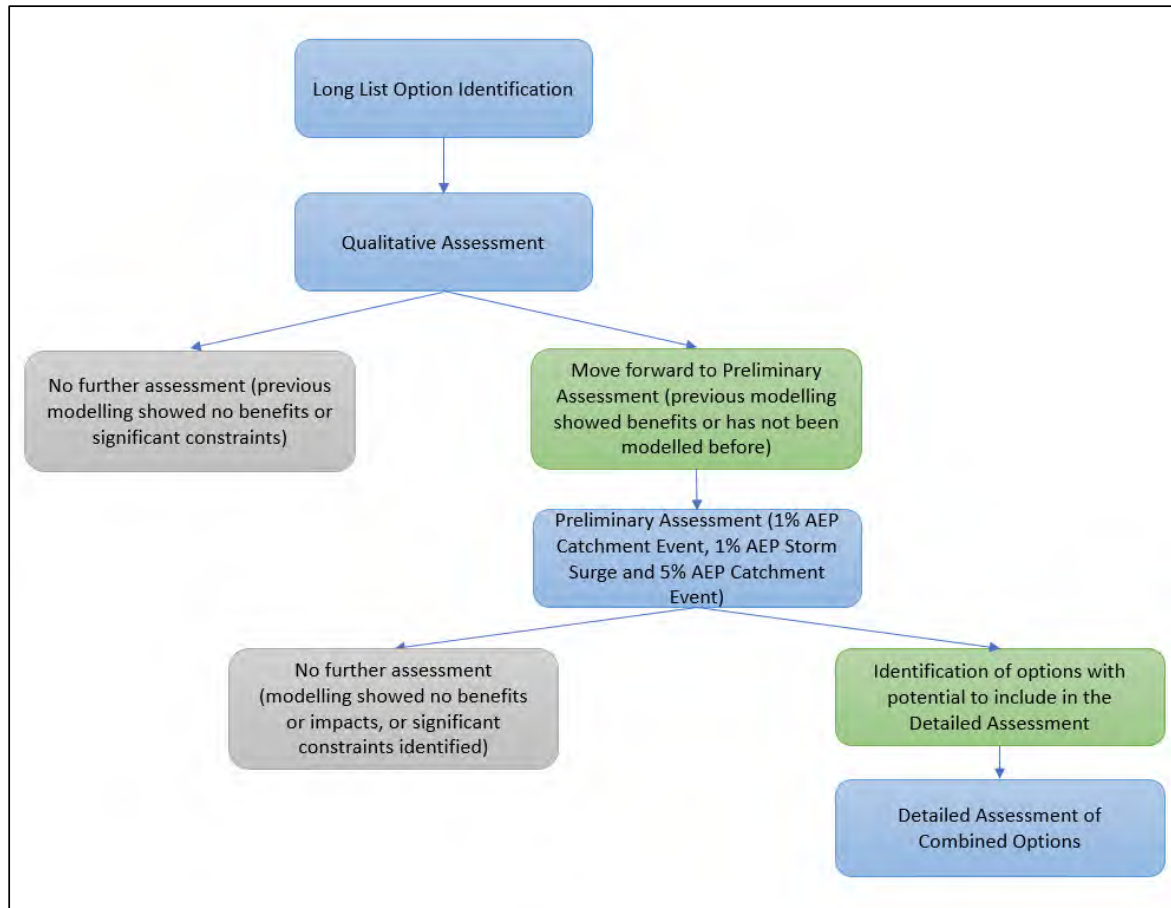


Figure 6-1 Assessment of Structural Options Flow Chart

6.1.1 Multi-Criteria Assessment

Best practice floodplain management considers a suite of integrated flood risk management measures, which are to be employed in a fit-for-purpose manner on a place-based application commensurate with flood hazard and the tolerability of flood risk.

In addition to considering structural measures, a multicriteria assessment was undertaken to consider the broader suite of available floodplain management measures and on a qualitative basis assess the feasibility of flood risk management across the catchment.

National best practice guidance and the latest Brisbane River Strategic Floodplain Management Plan (BRSFMP) recommends the consideration of seven key criteria which overarch 17 sub-criteria.

In a workshop with Council, each criteria was scored on overarching priority for 1 to 5. The score for each overarching criteria and the rank of that criteria amongst the other criteria are shown in Table 6-1. Council also identified two place-based criteria for inclusion in the MCA:

- Economic: Economic Multipliers - The effect on local economics, for example tourism.



- Social: Community Support - Expected support for option type or specific option. Consideration of impact on social values.

This MCA has been used to assess both the preliminary options list and the detailed options list.

Table 6-1 MCA overarching Criteria

Criteria	Score	Rank
Economic	5	1
Feasibility	5	1
Infrastructure	5	1
Social	4	2
Environmental	5	1
Safety	5	1
Emergency Management	4	2

Table 6-2 Multicriteria scoring

Multi-criteria category	Sub-category	Description	Weighting
Economic	Cost benefit analysis	Consideration of option costs compared to reduction in flood damages.	7
	Economic Multipliers	The effect on local economics (e.g., tourism)	5
	Financial feasibility	Likelihood of securing funding. Consideration of initial and ongoing costs.	7
Feasibility	Technical feasibility	Option design and construction or implementation feasibility.	4
	Approval / legal feasibility	Likelihood of option being approved.	5
	Long term viability	Ongoing maintenance requirements.	6
	Political support	Expected political support and option agreement with current Council policies.	5
	Climate change feasibility	Is the option still viable under future climate conditions. Does the option mitigate against changing climate.	5
Essential Infrastructure	Impact on critical or essential infrastructure	Change in exposure of critical or essential assets.	6
Social	Community support	Expected support for option type or specific option. Consideration of impact on social values	5
	Community awareness and resilience	Impact on community flood awareness, preparation, response and recovery.	5
Environmental	Improved water quality	Change in impact to water quality in lakes and coastline.	7



Multi-criteria category	Sub-category	Description	Weighting
	Ecosystem health	Impact on biodiversity and ecosystem health.	6
Safety	Impact on vulnerable properties	Change in exposure of vulnerable properties	7
	Change in building exposure	Number of properties flooded above ground and above floor	5
	Change in flood hazard and risk to life	Change in hazard classification	7
Emergency management	Impact on emergency services	Change in burden on emergency services.	4
	Impact on evacuation	Change in response time or evacuation constraints.	4

6.1.2 Types of Structural Options

6.1.2.1 Stormwater Drainage

Stormwater drainage options include both the construction of new stormwater drainage and maintenance of existing drainage. Stormwater infrastructure includes stormwater pipes, street gutters and pits. Stormwater drainage networks are effective at managing more frequent design flood events, and cannot provide flood protection during larger sized flood events. While stormwater infrastructure is important to decrease localised flooding, there are installation and maintenance costs associated. Stormwater drainage improvement measures can include upgrades to the existing network or construction of new stormwater infrastructure.

Stormwater maintenance is important to prevent failure within the network and ensure infrastructure is operating efficiently. Stormwater maintenance includes measures like regular removal of vegetation and debris causing blockages to the network, the installation of debris reduction structures or regular network inspections.

6.1.2.2 Hydraulic Structures

Structural options such as hydraulic structures, refer to major hydraulic controls like bridges, large culverts and weirs. These types of structures can significantly impact the hydraulic behaviour of floodwater. Generally, by increasing the cross-sectional area of a hydraulic structure (i.e., increasing a culvert size, adding additional culverts, widening the bridge opening etc.) the flow conveyance through the structure can be improved. However, poorly designed hydraulic controls can result in increases in peak water levels, adverse increases in velocity and sediment erosion and hydraulic modelling is required.

6.1.2.3 Channel Modification

Channel modification aims to reduce upstream flood impacts by modifying the flow of water by either increasing channel capacity of conveyance. Channel modification includes a variety of structural options including dredging, channel widening, altering the channel path, naturalisation or concrete lining.

Consideration needs to be given to the floodplain characteristics and environmental features. Channel modification can have adverse impacts on the environment. Further to this, while channel modification can provide significant upstream benefits, there can be a corresponding increase in flood levels downstream. The success of channel modification measures is dependent on the type of floodplain and channel. Hydraulic modelling in conjunction with other studies such as geomorphology and ecology studies are critical in ensuring channel modification has no adverse effects.



For channel modifications such as dredging, this option is temporary solution only and requires regular dredging to maintain the benefits. Dredging can be expensive and have significant environmental impacts such as leading to increases in bank erosion and disruption to the natural ecosystem. The dredged material is often considered hazardous waste and requires appropriate consolidation and disposal. Additionally, there is no guarantee where in the dredging cycle a flood will occur.

6.1.2.4 Detention Basins

Detention basins are designed as storage areas to temporarily store floodwater and control the outflow of water. Detention basins often require significant land acquisition and excavation, and subsequently can have community impacts. They can be designed as either wet or dry areas and often are designed to have multi-purposes such as parks or water features etc.

Detention basins can only provide protection up to the flood event they are designed for. Community education is important to ensure the community understand their risk.

6.1.2.5 Levees

Levees can be temporary or permanent wall like structures designed to prevent floodwater from inundating certain areas of the floodplain.

Temporary levees are short term structures made from manmade materials. Temporary levees are only appropriate where an area has adequate warning time to allow for assembly, and a nearby space to store the levee structure. Without adequate warning time, temporary levees are likely to fail.

Permanent levees can be made from a range of materials, from manmade materials such as concrete to earthen materials designed to form part of the environment (i.e., permanent earthen levees could be designed to look like part of an ocean bund). Both permanent and temporary levees can only provide protection up to the flood event they are designed for. Subsequently, levees can introduce a false sense of safety in the community. Use of levees need supporting community education to ensure the community understand their risk.

In some cases, levees can displace the floodwater to another area of the floodplain. As such, hydraulic modelling is essential to ensure no adverse impacts will be caused to the community. Further to this, levees do not prevent localised stormwater flooding behind the levee.

6.1.3 Qualitative Options Assessment

A long list of options was identified, including a combination of previously assessed options and newly identified options. These are presented below in Table 6-3.

An initial qualitative assessment of these structural options was completed to identify which of options from the long list would proceed to the preliminary hydraulic assessment phase. This initial qualitative assessment has either been based on previous modelling that has shown no benefits, or where options have known constraints that would not be possible to overcome.

Table 6-3 presents the results of this qualitative assessment and the options recommended for further hydraulic modelling.



Table 6-3 Qualitative Assessment of Structural Options to proceed to Preliminary Assessment

Option Description	Previously Assessed	Expected reduction in flood risk	Cost and Maintenance Costs	Other Considerations	Proceed to Preliminary Assessment
Cunningham Street kerb and channel, and drainage works	Yes (Advisian, 2021)	No reduction, slight increase.	Low	N/A	No. No benefit demonstrated
Lowlands Lagoon Trunk Duplication	Yes (Advisian, 2021)	Initial modelling showed potential benefits.	Moderate	Revised modelling shows flooding in the Lowlands Lagoon area not as significant.	No. Benefits likely overestimated in original modelling.
Lake / detention storage repurpose – Old Maryborough to Main Street	Yes (Advisian, 2021)	Minor reduction only.	Moderate		No. Isolated benefits only.
Esplanade Crossing Upgrade	Yes (Advisian, 2021)	Moderate reduction in levels.	Moderate	N/A	Yes (MIT001).
Toonan Toonan Creek Naturalisation	Yes (Advisian, 2021)	Moderate reduction in levels.	Moderate	N/A	Yes (MIT004 and MIT008).
Totness Street Culvert Weir	Yes (Advisian, 2021)	No reduction.	Low	N/A	No. No benefit demonstrated
Beach outlet rationalisation	Yes (Advisian, 2021)	Not modelled.	High	Revised modelling shows flooding in the Lowlands Lagoon area not as significant.	No. Prohibitively expensive and benefits overestimated in original modelling
Beach outlet modifications	No	Not modelled.	Moderate	Coastal processes would need to be considered.	Yes. Include to understand potential impacts (MIT002).
Increased drainage under Pialba Place	No	Not modelled	Moderate	N/A	Yes to understand if potential benefits (MIT003).
Increased drainage along Main Street	No	Not modelled.	Moderate	N/A	Yes (MIT007).
Ocean Levee east of Toonan Toonan Creek outlet	No	Not modelled.	High	Coastal processes and ecosystem impacts would need to be considered.	Yes. Include to understand potential impacts (MIT006).



6.1.4 Preliminary Assessment

Structural options included in the preliminary assessment have been modelled for the 1% AEP catchment design flood event and 1% AEP storm surge and 5% AEP catchment event. Appendix E presents the flood level difference results for all structural options assessed as part of this detailed options assessment. Section 6.1.4 through to 6.1.4.8 describe the option details and results.

6.1.4.1 Esplanade Crossing Upgrade (MIT001)

This option assessed upgrading the culverts underneath the Esplanade to a bridge. Currently there are 5 x 2.7 m x 1.7 m box culverts. This option looks at removing these and replacing it with a 20.5 m wide bridge shown in Figure 6-2. The option has not undergone design and has assumed a 0.8 m deck with a 1.2 m railing. Appendix E presents the flood level difference mapping and shows minor benefit only of reductions of up to 0.05 m to properties in the vicinity of McKean Road. Each option has been tested under a storm surge event as well to confirm if the option remains viable. Option S01 is still viable under storm surge conditions and shows reductions in flood levels at property of up to 0.1 m.

While reductions in flood levels are not significant, this option is recommended for further assessment due to the potential benefit to property.

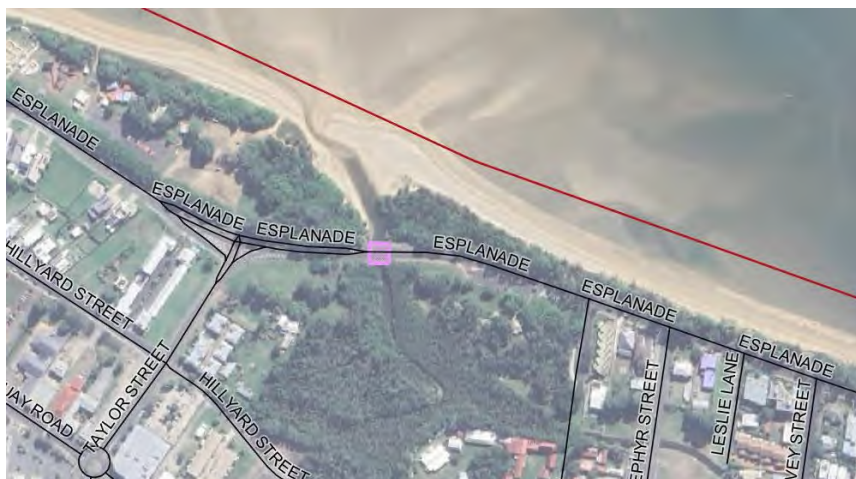


Figure 6-2 Esplanade Crossing Upgrade (MIT001)

6.1.4.2 Dredging downstream of the Esplanade Culverts (MIT002)

This option considers further dredging downstream of the Esplanade culverts. The model digital elevation model was modified to reduce the downstream sand banks to the same level as the channel bed. Figure 6-3 below shows the location of proposed dredging. Appendix E presents the flood level difference mapping and shows the option provides benefit under a catchment dominated event but results in significant widespread impacts under a storm surge dominated event. Notwithstanding the impacts under a storm surge event, dredging downstream of the esplanade culverts would require further investigation to understand the influence of coastal processes and ecological investigations. Additionally, aerial imagery shows significant sand deposits downstream of the model boundary. Consideration would be needed to how to tie in the proposed dredging location with the current elevation of the ocean bed immediately downstream.

Due to the impacts seen under a storm surge dominated event and the wider coastal and ecological considerations, this option is not recommended for further assessment.

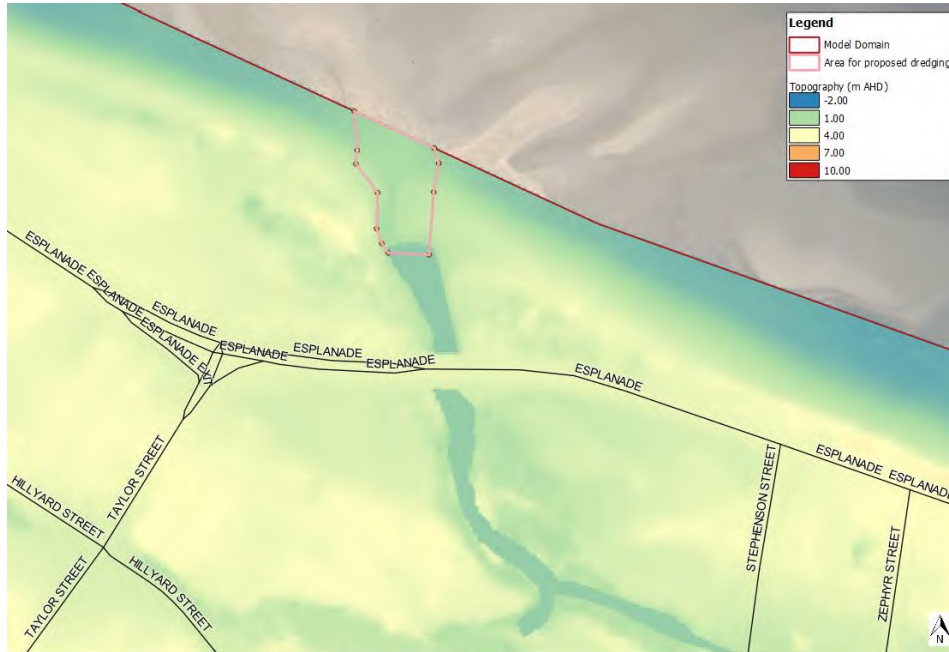


Figure 6-3 Dredging downstream of the Esplanade Culvers (MIT002)

6.1.4.3 Pialba Place Drainage Improvement (MIT003)

The Pialba Place drainage improvements included adding additional pits and pipes in the vicinity of Pialba Place and upgrading some pipes. Figure 6-4 below shows the location of new or upgraded pipes and new pits. A series of 525 mm RCPs have been added along Torquay Road and Hunter Street before discharging to the open channel downstream of Pialba Place. The pipes running underneath Pialba Place have been upgraded 3 x 1.2 m RCPs (currently 2 x 1.05 m RCPs). Appendix E presents the results and shows no noticeable change in flood level. This is likely because the magnitude of flows being captured by the pipes is small compared to the flood flows.

While this option is not recommended for further consideration in isolation, it was agreed to consider this option in combination with improvements to conveyance capacity downstream.



Figure 6-4 Pialba Place Drainage Improvements (MIT003)

6.1.4.4 Widening of Concrete Channel downstream of Frank Street (MIT004)

This option looks at widening the existing concrete lined channel from just downstream of Frank Street through to where it converges with the natural channel. Figure 6-5 below shows the proposed location for channel widening and on average, the channel has been widened approximately 4 m either side. This option would require some land resumption as the proposed channel widening extends into the backyards of some properties. Appendix E presents the results of the option and show benefits of up to 50 mm in the 1% AEP design flood event and benefits of up to 100 mm in the 1% AEP storm surge event and 5% AEP catchment event. There are some isolated impacts upstream of East Street in the 1% AEP storm surge event and 5% AEP catchment event. This is due to the interaction between the two flow paths.

Widening and naturalisation of the channel is recommended for further consideration. MIT008 explores at how widening and channel naturalisation could be extended further.



Figure 6-5 Channel widening downstream of Frank Street (MIT004)

6.1.4.5 Physical Protection of Pialba Place (MIT005)

This option looks at a levee style protection for the commercial precinct at Pialba Place. Council has advised the design of the shopping centre at Pialba Place is such that it would prevent the ingress of water. This has been investigated by way of a mitigation option only. Generally, buildings are not completely flood proof and it is likely floodwater will inundate the property. Figure 6-6 below shows the levee arrangement at Pialba Place. Appendix E presents the results of the assessment and shows that during a 1% AEP catchment design flood event there are impacts of up to 0.3 m directly west of the levee placement and over 0.3 m along Main Street. These impacts seen as a result of the levee arrangement are less pronounced under a storm surge dominant flood event with impacts of only up to 0.1 m in the 1% AEP storm surge and 5% AEP catchment design flood event.

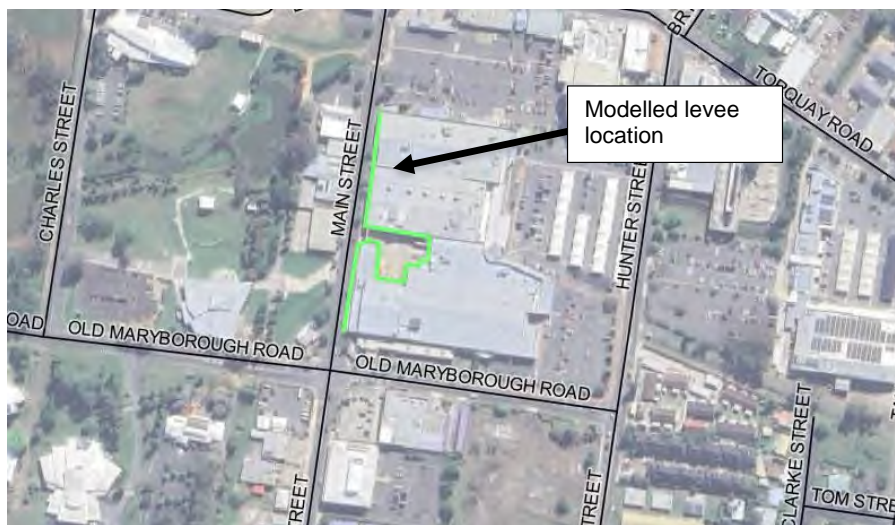


Figure 6-6 Physical protection of Pialba Place (MIT005)



6.1.4.6 Raising of Bideford Street and Ocean Bund Levee (MIT006)

This option looks at raising Bideford Street from Torquay Terrace through to the ocean bund to act as a levee and also raising the ocean bund to act as a levee. Figure 6-7 below shows the location where the Bideford and Ocean Bund levee is proposed. Appendix E presents the results of the assessment and show that during a 1% AEP storm surge and 5% AEP catchment event there are reductions in flood levels of up to over 1 m and some area of was wet now dry. However, there are some increases in flood levels northwest of the channel opening where there is no ocean bund levee. These impacts are up to 60 mm and impact some property. In the 1% AEP catchment flood event there are increases in flood levels west of Bideford of up to 100 mm impacting property.

This option is not recommended further due to the financial and technical feasibility constraints in conjunction with the likely negative impact on the ecosystem. Additionally, mitigation options like ocean levees can provide the community a false sense of protection and may lead to a reduction in flood awareness.



Figure 6-7 Bideford and Ocean Bund Levee (MIT006)

6.1.4.7 Main Street Drainage (MIT007)

This option includes adding a new pipe network along Main Street, which discharges to the ocean. Figure 6-8 below shows the location of this new pipe network and includes a series of 2 x 1.2 m RCP along Main Street. In the 1% AEP catchment event, this option provides widespread reductions of flood levels from Main Street through to Queens Road, however, reductions are limited to up to 50 mm. The option was tested under the 1% AEP storm surge event and 5% AEP catchment event and show benefits are still provided under a storm surge dominant event.

While benefits are limited, due to the widespread reduction this option is recommended for further consideration.



Figure 6-8 Main Street Drainage (MIT007)

6.1.4.8 Widening of Concrete Channel downstream of Tavistock Street (MIT008)

This option looks at widening the existing concrete lined channel from just downstream of Tavistock Street through to where it converges with the natural channel. Figure 6-9 below shows the proposed location for channel widening and on average, the channel has been widened approximately 4 m either side. This option would require some land resumption as the proposed channel widening extends into the backyards of some properties. Appendix E presents the flood level impact results for this option and show widespread reductions in flood levels of up to 100 mm in the 1% AEP catchment flood event. This option was tested for the 1% AEP storm surge and 5% AEP catchment event and shows the option still provides benefits under a storm surge dominant event.

Due to the widespread benefits provided, this option is recommended for further assessment.

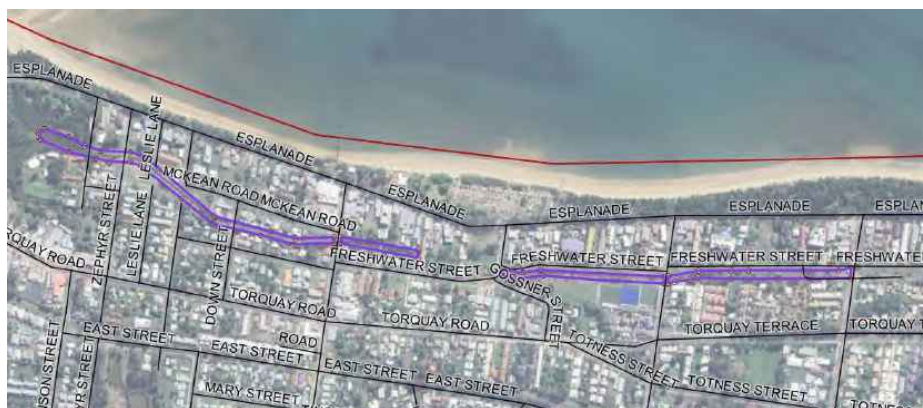


Figure 6-9 Channel widening downstream of Tavistock Street (MIT008)



6.1.5 Preliminary Options Multi-Criteria Assessment

A first pass multi-criteria risk assessment has been completed for the preliminary options considered, as shown in Figure 6-10. This has been used to inform identifying which options are recommended to investigate further as part of the detailed options assessment. MIT005 has not progressed to detailed assessment despite the high multi-criteria assessment, as this option was testing the existing design of the shopping centre.

The results of this first pass multi-criteria assessment has identified the following preliminary options for further assessment:

- MIT001 – Esplanade Crossing Upgrade,
- MIT003 – Pialba Place Drainage Improvements,
- MIT007 – Main Street Drainage, and
- MIT008 – Widening of Concrete Channel downstream of Tavistock Street (incorporated MIT004).



Multi Criteria	Criteria Weighting	Options							
		MIT001: Upgrade Esplanade Bridge	MIT002: Dredge downstream of Esplanade Bridge	MIT003: Increase pipe capacity near Pialba Place	MIT004: Widening of channel DS of Frank Street	MIT005: Physical protection of Piabla Place	MIT006: Ocean Wall	MIT007: Trunk drainage along Main Street	MIT008: Channel widening DS of Tavistock Street
Cost benefit analysis	7%	0	0	0	0	0	0	0	0
Economic Multipliers	5%	0	0	1	0	1	-2	0	0
Financial feasibility	7%	-3	-2	-2	-2	0	-3	-2	-2
Technical feasibility	4%	-1	0	-1	-1	1	-3	-2	0
Approval / legal feasibility	5%	-1	-1	0	-1	1	0	0	-1
Long term viability	6%	-1	-2	-1	-1	0	-3	-1	-1
Political support	5%	0	0	0	0	0	-2	0	-1
Climate change feasibility	5%	1	1	1	1	1	1	1	1
Impact on critical or essential infrastructure	6%	2	1	1	2	2	2	1	2
Community support	5%	0	0	0	-1	0	-3	0	-1
Community awareness and resilience	5%	1	1	1	1	1	-2	1	1
Improved water quality	7%	0	0	0	0	0	0	0	0
Ecosystem health	6%	0	0	0	1	0	-2	0	2
Impact on vulnerable properties	7%	1	1	1	2	1	2	1	2
Change in building exposure	5%	1	1	1	1	1	1	1	1
Change in flood hazard and risk to life	7%	1	1	1	1	1	1	1	1
Impact on emergency services	4%	0	0	0	0	0	0	0	0
Impact on evacuation	4%	1	1	1	1	1	1	1	1
Total Score		0.09	0.08	0.2	0.24	0.59	-0.61	0.11	0.29

Figure 6-10 First pass MCA (Preliminary Options)



6.2 Detailed Options Assessment

Based on the results of the preliminary assessment, three combined options have been identified for detailed assessment. All combined options have been modelled for the full suite of design flood events to allow for a comparison of average annual damages and estimate a benefit cost ratio. Appendix F presents the flood level impact results for each combined option.

Options have been costed based on unit rates provided by Fraser Coast Regional Council. All unit rates and indicative costs have been converted to 2022 dollars. Estimated costs for the combined option 1 are presented in Appendix G. These costs are indicative only and do not represent a detail cost breakdown of all design and work required.

6.2.1 Structural Mitigation Options

6.2.1.1 Combined Option 1 (COM01)

Combined option 1 included the Esplanade crossing upgrade (S01), Main Street Drainage (MIT007), and channel widening downstream of Tavistock Street (MIT008). Figure 6-11 below shows the proposed layout of this option. As previously outlined separately in Section 6.1.4, this structural option comprises:

- Replacing the 5 x 2.7 m x 1.7 m box culverts currently under the Esplanade with a 20.5 m wide bridge assuming a 0.8 m deck with a 1.2 m railing,
- A series of 2 x 1.2 m RCPs along Main Street, and
- Widening of the existing channel from Tavistock Street through to where the concrete channel converges with the natural channel.

Appendix F presents the flood level impact results and show benefits to flood levels in all design flood events. In frequent events such as the 20% AEP, this combined option offers reductions of up to 100 mm. In the 1% AEP design flood event there are reductions in flood levels of up to 170 mm along McKean Road. There are some benefits provided to the commercial precinct near Pialba Place and between Hunter and Taylor Street, however these are only up to 40 mm.

The results of the economic assessment are outlined in Figure 6-12 below and show the option offers a \$310,000 reduction in average annual damages. The option has been tested with a 4%, 7% and 10% discount rate. Under all three discount rates, the option has a BCR of below 1 and will never provide a payback of benefits.



- Replacing the 5 x 2.7 m x 1.7 m box culverts currently under the Esplanade with a 20.5 m wide bridge assuming a 0.8 m deck with a 1.2 m railing, and
- A series of 525 mm RCPs along Torquay Road and Hunter Street, which discharge to the open channel downstream of Pialba Place. Upgraded pipes underneath Pialba Place to 3 x 1.2 m RCPs (currently 2 x 1.05 m RCPs).

Appendix F presents the flood level impact results. The flood level difference for the combined option 2 is not as widespread as seen for combined option 2. However, there are more significant benefits to Pialba Place in frequent design events less than the 5% AEP. Benefits are provided in all design flood events and are up to 95 mm near McKean Road in the 1% AEP design flood event.

The results of the economic assessment are outlined in Figure 6-14 below and show the option offers a \$810,000 reduction in average annual damages. The option has been tested with a 4%, 7% and 10% discount rate. Under a 4% discount rate the option has a benefit cost ratio (BCR) of 1.34 and a payback period of 25 years. Under a 7% and 10% discount rate, the option has a BCR of 0.9 and 0.67 and will never provide a payback of benefits. The economic benefit provided by this option is because of the minor reduction in flooding to the commercial buildings in the Pialba Place precinct. These commercial buildings have very high flood damages and subsequently even a small reduction in flood levels results in a very large reduction in average annual damages. This may be overestimating the benefits provided by this option and should there be further assessment undertaken, a site specific property valuation should be completed to understand the economic value of Pialba Place.



Figure 6-13 Combined Option 2



Combined Option COM02			
Option AAD	\$	19,667,856.01	
Reduction in AAD	\$	812,564	
<i>Assuming 50 year design life</i>			
Capital Costs (inc. 20% contingency)	\$	13,102,000.00	
Annual Maintenance (estimate only)	\$	20,000.00	
Present Day Costs		4%	7%
NPV of Annual Maintenance Costs	\$	446,829	\$ 295,336
Total NPV Costs	\$	13,548,829	\$ 13,397,336
NPV of Benefits	\$	18,153,871	\$ 11,998,966
BC Ratio		1.34	0.90
Payback Period		25 years	<i>Never</i>

Figure 6-14 Combined Option 2 (COM02) Economic Assessment Results

6.2.1.3 Combined Option 3 (COM03)

Combined Option 3 includes the Esplanade crossing upgrade (S01), a variation and expansion of the channel widening option (MIT008), and proposed property buy backs to allow for further channel widening. Figure 6-15 below shows the proposed layout of this option. This structural option includes the following:

- Replacing the 5 x 2.7 m x 1.7 m box culverts currently under the Esplanade with a 20.5 m wide bridge assuming a 0.8 m deck with a 1.2 m railing,
- Widening of the existing channel from Tavistock Street through to where the concrete channel converges with the natural channel and minor realignment to straighten the channel near McKean Road. This channel modification option is wider than the previously assessed MIT008 option and also includes the section that was previously piped downstream of Frank Street,
- Purchase of properties along McKean Road and just downstream of Frank Street.

Appendix F presents the flood level impact results and show widespread benefits from the channel outlet up to lake system in Lowlands Lagoon. There are some minor impacts near Queens Road and Frank Street, however, these can likely be managed through more detailed design. Reductions in flood levels range from 15 – 20 mm in Lowlands Lagoon to 145 mm along Freshwater Street near Frank Street.

The results of the economic assessment are outlined in Figure 6-16 below and show the option offers a \$550,000 reduction in average annual damages. The option has been tested with a 4%, 7% and 10% discount rate. Under a 4% discount rate the option has a benefit cost ratio (BCR) of 0.42. Under a 7% and 10% discount rate, the option has a BCR of 0.28 and 0.21 respectively. The largest expense by far with this option is the required purchase of property to allow for the extent of channel widening proposed.



Figure 6-15 Combined Option 3

Combined Option COM003			
Option AAD	\$	19,928,662.42	
Reduction in AAD	\$	551,757	
<i>Assuming 50 year design life</i>			
Capital Costs (inc. 20% contingency)	\$	28,885,000.00	
Annual Maintenance (estimate only)	\$	25,000.00	
Present Day Costs		4%	7%
NPV of Annual Maintenance Costs	\$	558,537	369,170
Total NPV Costs	\$	29,443,537	29,254,170
NPV of Benefits	\$	12,327,072	8,147,690
BC Ratio		0.42	0.28
Payback Period		Never	Never

Figure 6-16 Combined Option 3 (COM03) Economic Assessment Results

6.2.1.4 Coastal Processes Study

It is understood that the outlet of Toon Toon Creek, and other beach outfalls in the study area experience frequent sand accretion. Investigation of coastal processes and mitigation options is outside the scope of this study. However, it is recommended a coastal management study be completed to investigate coastal



processes within the study area and investigate coastal mitigation options such as groynes to minimise the frequency of accretion. As part of this study, explore potential to provide flood mitigation benefits as well as environmental benefits.

6.3 Community Awareness and Resilience

It is not possible to prevent flooding, and floodplain management options relating to community awareness and resilience aim to manage the residual flood risk by building the communities understanding of flood risk, preparedness, and their capability to respond to and recover from floods. This includes the community's ability to remain functional through times of stress, being adaptable to changes in the environment, being self-reliant if resources are cut-off; and learning from experience over time.

Social impacts from natural disasters can be significant ranging from increases in mental illness, domestic violence, substance abuse, unemployment, chronic disease and post-traumatic stress disorders (Australian Business Round Table, 2016). The climate outlook for Queensland suggests more extreme and frequent disaster events. With communities already experiencing the effects of multiple hazards and repeat disaster events, ensuring communities are resilient is increasingly important. This is particularly relevant for Toosan Toosan and Lowlands Lagoon, as the study area is vulnerable to both catchment dominated flooding and storm surge flooding.

Building a flood resilient community requires deliberate, regular and ongoing action. Awareness and engagement activities in isolation or at a single point in time are not effective. Additionally, community education activities alone will not result in a flood resilient community. It is important to ensure the community understand their risk, but also know what actions they can take, believe that these actions will be effective and for these actions to be achievable (i.e., not prohibitively costly or difficult to implement). An effective approach to building a flood resilient community is ongoing, participatory, multifaceted and empowers the community.

The principles presented in the Queensland Prevention, Preparedness, Response and Recovery Disaster Management Guideline (Queensland Fire and Emergency Services, 2018) has been modified for this purpose (replacing *Prevention* with *Awareness*), as shown in Figure 6-17. While *prevention, preparedness, response, and recovery* is well documented as a best practice model, *prevention* measures are better addressed in other aspects of the Toosan Toosan Creek and Lowlands Lagoon Coastal and Flood Risk Management Study (including structural mitigation, land use planning and other applications). This model is consistent with previous best practice flood risk management studies including the Ipswich Integrated Catchment Management Plan (Water Technology, 2020).

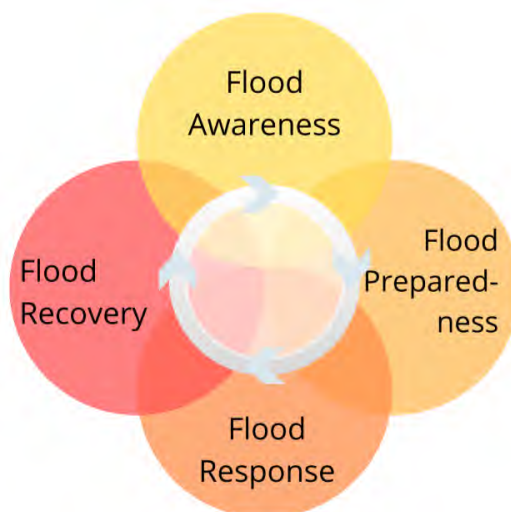


Figure 6-17 Modification of the PPRR Model for Community Awareness and Resilience

6.3.1 Existing Resources

6.3.1.1 Get Ready Queensland

The Council hub on the Queensland Reconstruction Authority's (QRA) Get Ready Queensland website provides a range of resources to use and information about how Councils can coordinate messaging with the Get Ready Campaign. This portal can be accessed through <https://www.getready.qld.gov.au/council-hub>, and includes:

- Council funding information, application templates, key dates, and timelines,
- QRA Get Ready Queensland logos and co-branding resources and guidelines,
- Media and social media tips and template images,
- Image library of photos and branded flyers to be used by Councils,
- Print portal enabling co-branding and assistance in collateral printing for messaging,
- News, including monthly newsletters and links to examples from Council resources, and
- Resource examples from Councils across Queensland (including Council resources).

6.3.1.2 QRA Flood Communication Toolkit

The QRA *Flood Communication Toolkit* (Toolkit) for Queensland Councils and State Agencies (QRA, 2020) aims to achieve regionally consistent messaging. The toolkit aims to provide consistent flood messaging across a range of topics through already prepared messages, images and graphics that are ready for Councils to use across a range of platforms. The toolkit provides messaging for the following topics:

- Awareness,
- Myths,
- Preparedness,



- Safety,
- Warnings,
- Insurance,
- Recovery,
- Resilient homes, and
- Rebuilding after a flood.

Flood messaging for these topics is aided by the provision of imagery, titles, linking documents, additional information, and hashtags for social media use. Using these resources as a starting point provides regional consistency in terminology, topics, and co-branding to build audience familiarity and awareness.

6.3.1.3 Birdie's Tree

Birdie's Tree is an initiative of the Queensland Centre for Perinatal and Infant Mental Health and was expanded to include natural disasters following Cyclone Yasi as mental health professionals identified children who experienced natural disasters were presented with post traumatic stress behaviours. This initiative is aimed at supporting children prepare for and recover from natural disasters. It provides a range of resources including books, games, information and resources and early childhood curriculum resources. This resource can be accessed via <https://www.childrens.health.qld.gov.au/natural-disaster-recovery/>.

6.3.2 Recommended Activities

Community awareness and resilience flood risk management is primarily delivered through successful communication, education, and engagement activities that build capacity within the community. The following section describes recommended activities.

6.3.2.1 Community Programs

6.3.2.1.1 School Education Programs

A formal school program for the Fraser Coast region delivering all-hazards awareness, preparedness and response content and activities. The aim of school education programs is to increase knowledge and understanding of flooding via the school education and indirectly convey messages to the wider family unit.

These programs can be planned to cover a range of flood and other hazard related topics and would include engaging activities and projects. The program should actively seek input from participants into shaping other community awareness and resilience activities across the region. Programs with community members and school operational staff can facilitate flood awareness, preparedness, and emergency management planning.

Specific activities related to school education programs include:

- School projects related to learning about historic natural disasters, flooding mechanisms, and protective action and the benefits that can be taken prior to, during and following a disaster event.
- Interviews with older residents, or subject matter experts.
- Workshops can be held at the end of school term with school age children that have participated in the schools' program inviting their parents to attend.
- Students can share what they have learnt throughout the program, and parents and students can participate in activities.

School education programs widen the audience of flood awareness messaging, and facilitates families discussing flood risk and protective actions. Schools within priority suburbs should be prioritised initially. Table 6-4 below provides some details on implementation requirements for school education programs.



Table 6-4 Implementation Considerations for School Education Programs

School Education Program	
Most effective for	Effective for all forms of flood exposure risks. Provide flood exposure risk at the level of individual streets and properties as a part of the programs. Inclusive of all vulnerability types, depending on program participants. Schools program only applicable for children and parents/carers.
Not effective for	Not effective for disengaged residents – community buy-in and participation is key to success of programs.
Resource requirements	<ul style="list-style-type: none"> ■ Advertising of program to invite participation ■ Participants that join for the life of the program ■ Available staff to facilitate and coordinate programs ■ Resources including program plans, content, facilitation resources, collateral, presentations, activities etc.
Evaluation methods	<ul style="list-style-type: none"> ■ Number of schools programs are offered to ■ Number of registrations and participants ■ Participant feedback ratings (satisfaction survey etc.).

6.3.2.1.2 **Community Champion Programs**

Establish a new Community Champions Program to facilitate community-led action and engagement. These types of programs aim to build positive relationships and networks between trusted community members and Council. Further to this, community champions programs aim to empower and upskill knowledgeable and trusted community members. Existing community groups can be used to identify these members.

Through community champions programs, individuals and communities will have capacity to understand risk, accept responsibility and implement initiatives. Other community awareness and resilience activities being implemented should be shaped by champions' input.

Specific activities related to community champion programs include:

- Advertising campaign and discussion with already identified community leaders to encourage participation,
- Meetings and information sessions to upskill identified community leaders around historic natural disasters in the area, flooding mechanisms, protective action and the associated benefits with these protective actions (i.e., having an emergency kit already prepared including your personal ID documents can make the recovery process and seeking financial support quicker and less stressful),
- Development of other community engagement activities through a collaborative exercise between the community champions and Council,
- Provision of flood exposure risk at the level of individual streets and properties as a part of the programs.

Table 6-5 below provides some details on implementation requirements for a community champions program.



Table 6-5 Implementation Considerations for Community Champions Programs

Community Champions Program	
Most effective for	<p>Effective for all forms of flood exposure risks. Inclusive of all vulnerability types, depending on program participants.</p> <p>Can be effective where the community is disengaged or distrustful of Council or state agencies.</p>
Not effective for	<p>May not be effective for communities without strong community groups or trusted community members.</p>
Resource requirements	<ul style="list-style-type: none"> ■ Advertising campaign and associated materials ■ Available staff to facilitate and coordinate programs ■ Resources including program plans, content, facilitation resources, collateral, presentations, activities etc.
Evaluation methods	<ul style="list-style-type: none"> ■ Number of meetings/sessions held ■ Number of schools/community programs are offered to ■ Number of registrations and participants ■ Participant feedback ratings (satisfaction survey etc.)

6.3.2.2 Flood Information Collateral

Flood information collateral includes the provision of hardcopy, online and mailout information sheets around flood risk information. The aims of this activity are to:

- Improve the communities flood awareness throughout the Toosan Toosan and Lowlands Lagoon study area,
- Educate the community on different types of flooding (i.e., catchment dominant versus storm surge flooding), and
- Ensure the community understand what protective actions they can take prior to, during and after a flood event, and understand the associated benefits with these actions.

Specific material to be developed under this action include:

- Hard-copy modes: Factsheets, infographics, QRA templates, flood risk summary mapping etc.
- Online modes: Social media and website material, news articles, media releases, video / animation
- Mailout modes: Postcards, letters, newsletters, welcome packs.

The flood information collateral should aim to provide both generalised and specific flood risk information and include the following:

- Summary of flood behaviour and flood risk of the Toosan Toosan Creek and Lowlands Lagoon catchment. This should be written in plain language, should avoid use of technical jargon and should be succinct,
- Discussion on historic flooding across the study area (where this information is available),
- Information specific to flash flooding and storm surge flooding including unique risks (i.e., short warning times),
- Links to where people can look to find out more about their personal flood risk,



- Activities people can undertake prior to a flood event to improve their ability to respond and recover. For example, this could include information on insurance options or discussing the importance of having personal ID documents secured to facilitate improved recovery.

Table 6-6 below provides some details on implementation requirements for flood information collateral.

Table 6-6 Implementation Considerations for Flood Information Collateral

Collateral – <i>distributed in hardcopy form, online and through mailouts</i>	
Most effective for	<p>Effective for all forms of flood exposure risks. Provide flood exposure risk at the level of individual streets and properties. Inclusive of all vulnerability indicators, depending on distribution.</p> <p>Specific uses:</p> <ul style="list-style-type: none"> ■ New residents - mail out information packs ■ LOTE households – translated resources, subtitled videos, and visual collateral (picture based) ■ Low digital literacy communities – text based collateral ■ Younger audiences – Social media ■ Without internet access - hardcopy collateral.
Not effective for	<ul style="list-style-type: none"> ■ Text based collateral may not be applicable to engage young children or those who require assistance due to disability. ■ Online resources will not cater for those with low digital literacy
Resource requirements	<ul style="list-style-type: none"> ■ Existing Council resources. ■ Existing QRA collateral including factsheets, posters, checklists, household emergency plan templates etc. (e.g., Get Ready Queensland Council hub). ■ The QRA Flood Communication Toolkit should be used to if preparing new collateral to ensure regionally consistent terminology / messaging.
Evaluation methods	<ul style="list-style-type: none"> ■ Number of collateral materials distributed (<i>e.g. 100 factsheets</i>). ■ Number of events and/or locations collateral is available for the community to access. ■ Accessibility / variety of materials that are made available.

6.3.2.3 Event Based Engagement

Event based engagement use already organised and advertised events as opportunities to engage with the community on flood risk. In some cases, popular locations that experience significant foot traffic, such as shopping centres can also be used. These events can be used to distributed prepared flood information collateral to the community, engage in discussions with the community and discuss flood risk on a personal level and build trust between Council and the community.

Event based engagement also offers a good opportunity to conduct any planned community surveys. This may include surveys to gain an understanding the communities current awareness and preparedness, seeking feedback on mitigation options or draft studies, or requesting information from residents around previous flood events.



Building on this, event based engagement also offers a good opportunity to undertake targeted engagement aiming to respond to the findings of previous community surveys or results from the vulnerability assessment completed as part of this flood risk management study.

The goal of these activities is to:

- Increase general awareness of flood risk concepts, as well as distribute flood preparedness, response and/or recovery information and resources (particularly after a minor-moderate flood event), and
- Facilitate informal discussion of flood-related topics and build trust with the community.

The type of event based activities can include:

- Pop-up events - (e.g. in shopping centres, public parks, or civic spaces with foot traffic) to talk to passers-by about flood-related issues.
- Presence at community events (e.g. stalls at cultural days, local markets, fetes/fairs, or expos) to talk to attendees about flood-related issues.
- Town hall meetings – to publicly discuss flood related issues with the community.

Table 6-7 below provides some details on implementation requirements for event based engagement.

Table 6-7 Implementation Considerations for Event Based Engagement

Event-based Engagement – Pop-up events, presence at community events, townhall meetings, online sessions, etc.	
Most effective for	<p>Effective for all forms of flood exposure risks. Events can be held within hot spot suburbs where flood risk is high.</p> <p>Events are likely to be most effective after heavy rainfall or after minor flood events (i.e., where impacts are only minor), or as part of delivering flood risk management reports such as Flood Studies or Flood Risk Management Studies.</p>
Not effective for	<ul style="list-style-type: none"> ■ Events requiring travel / limited access may not be effective for targeting those requiring assistance or those with mobility vulnerability such as large families or those without a private vehicle. ■ Online events are not well suited for those with awareness vulnerability – e.g. LOTE and without internet access.
Resource requirements	<ul style="list-style-type: none"> ■ Council stall set up materials, suburb-specific flood risk mapping, flood information collateral, QRA templates etc. ■ Staff to be knowledgeable about flood risk/information for the study area. ■ Town hall meetings – advertising, prepared agenda, PowerPoints, presenters etc. collateral materials to distribute to attendees. Post event survey. ■ Online events – online platform, advertising, prepared agenda, PowerPoints, presenters / facilitators etc. <p>This local-scale engagement can be resource intensive as attendance to the events is required by technical and engagement staff, however, provides an effective way to draw community focus on flooding, distribute information, have one-on-one discussions with the community about their personal flood risk or collect surveys/feedback.</p>



Event-based Engagement – <i>Pop-up events, presence at community events, townhall meetings, online sessions, etc.</i>	
Evaluation methods	<ul style="list-style-type: none"> ■ Number of events held ■ Number of locations events were held ■ Community attendance details/numbers ■ Number of engagement hours

6.3.2.4 Community Workshops

Community workshops generally aim to address a specific community education or flood risk management goal, such as business continuity planning. It can be difficult to encourage engagement in workshops like this unless the community perceive clear benefits and outcomes. Subsequently, community workshops should be centred around community needs and advertisement should outline the expected benefits for the community.

These workshops can be valuable methods to increase awareness, translate flood risk to a local scale, and facilitate preparedness actions that can be taken individually and as a community (*e.g., property specific actions, how to respond when a flood event occurs, making a household emergency kit, joining the community champions program etc.*).

The goal of community workshops is to:

- Directly engage residents and businesses within priority suburbs for enhanced flood awareness and resilience.
- Facilitate residents and businesses to take proactive preparedness action.
- Build community networks and identify community champions.

Workshops can be developed as a community education activity to build awareness and resilience.

They can be structured with 'template' information and have supporting suburb-specific or adapted slightly to consider the audience/local context. Some examples of community workshops include:

- Understanding your Flood Risk workshop (Flood Awareness for residents)
- Flood Resilient Homes workshop (Flood Preparedness for residents)
- Business continuity workshops (Flood Preparedness for businesses)

Table 6-8 below provides information for implementation of community workshops.



Table 6-8 Implementation Considerations for Community Workshops

Community Workshops	
Most effective for	<p>Flood awareness workshops can be designed to cater to residents within priority suburbs with the vulnerability driver of awareness (new residents, LOTE, without internet access), including:</p> <ul style="list-style-type: none"> ■ Mail-out invitations to priority suburbs to cater to new residents. ■ Offer translation and simplified English resources in event advertisement/registration to cater to LOTE households. ■ Advertise through a range of methods (not just online). <p>Flood preparedness workshops can be designed to cater to residents within priority suburbs with the vulnerability driver of physical or mobility. It is important that households with these vulnerability indicators have a household emergency plan and are adequately prepared for a flood event.</p> <p>May be effective in preparing residents and care providers to those who require assistance, and parents of school-aged children if workshops are hosted by schools and education facilities (refer school education program).</p>
Not effective for	<p>May not be effective for residents who are unemployed or in low income households unless flood workshops can be incentivised or organised via shelters and/or social service organisations.</p>
Resource requirements	<p>Effective community engagement can be resource intensive. Template workshops structure can be developed and made suburb-specific by bringing location flood maps, flood risk materials specific to the workshop audience. This will allow efficiency in running workshops, without compromising the relevance of workshops for participants.</p> <p>Workshop considerations for physical/mobility vulnerability include:</p> <ul style="list-style-type: none"> ■ Offer transportation if needed from care homes etc. and invite care provider staff ■ Select a venue that is wheelchair accessible ■ Consider providing child-care activities for the duration of the workshop to enable one-parent families to attend.
Evaluation methods	<ul style="list-style-type: none"> ■ Number of workshops held ■ Number of locations of workshops held ■ Number of advertising methods used (e.g. 50 mail-out invitations, 3 social media posts etc.) ■ Number of registrations and attendees ■ Participant feedback ratings (satisfaction survey etc.) ■ Number of businesses/residents that contacted the disaster management unit (relating to flood resilience)

6.4 Resilient Property Measures

The aim is to provide Council with a suite of recommendations and a suggested program of property specific flood mitigation measures that are prioritised, and which can be implemented as part of a longer-term floodplain management strategy. The implementation of a program of property specific actions is to be considered across



the study area on a case-by-case basis. The methods and results presented in this report are for consideration only.

6.4.1 Background

Managing flood risk within a local government area is best achieved by utilising a variety of measures. This section summarises what property specific actions homeowners within the Tooan Tooan and Lowlands Lagoon study area and wider Fraser Coast LGA can be encouraged to take for effective, localised flood risk management.

Whilst the onus to implement these measures will predominately reside with homeowners within the region, Fraser Coast Regional Council (Council) can facilitate this process by considering the recommendations included in this flood risk management plan. Such actions will be more effective when implementation is coordinated between the suite of flood risk management options presented as part of this FRMS.

The QRA provides tips for homeowners to renovate using flood resilient materials, this will be encouraged through the implementation of community awareness and resilience work actions in the study area. For consistent messages and advice regarding flood resilient building techniques please refer to www.getready.qld.gov.au/get-prepared.

There are a number of actions house owners can take to increase flood resilience, including:

- Residential property buy-back and voluntary purchase; and
- Voluntary house raising and flood-proofing (including both wet and dry-proofing methods via retrofitting with flood resilient building materials).

One of the initiatives of the Brisbane River Catchment Flood Studies is the *Flood Resilient Building Guidance for Queensland Homes* document, to be used by building professionals and residential building owners within flood impacted areas. While this was developed for the Brisbane River catchment, it can be adopted for other areas across Queensland. Every house type is able to improve their ability to prepare for and recover from flood events via flood resilient design solutions and consideration of building materials used.

6.4.2 Building and Development Controls

Existing building controls in Queensland include the Queensland Development Code MP3.5 which prescribes defined flood levels if building work is carried out in declared flood hazard areas. This ensures houses in a defined flood hazard area have their habitable floor levels built above the defined flood event (DFE) and are constructed to withstand hydrodynamic forces associated with floodwaters even if the development does not trigger assessment under the catchment planning scheme. However, this code does not prescribe flood resilient materials beyond the structural component, and does not provide building provisions for storm tide.

It is noted in the Brisbane River Strategic Floodplain Management Plan (State of Queensland, 2019), that property specific actions should be considered where 'flood risks are high and other alternative options are not feasible'. In that context and to further encourage and support the uptake of flood resilient built form in the Tooan Tooan Creek catchment and Lowlands Lagoon, the FRMS will present a suitable method for prioritising buildings and a methodology to mitigate the risk.

6.4.3 Comparison of Property Specific Actions

For the FRMS the following property specific actions will be considered under two categories:

1. Residential property buy-back and voluntary purchase; and
2. Retrofitting building materials such as flood-proofing (including both wet and dry-proofing methods) and voluntary house raising.



Voluntary House Purchase should be considered in areas subject to high hazards where it may be appropriate to cease occupation of the building in order to remove residents from dangerous situations and intolerable flood risks.

Building resilience into existing properties is suitable for lower hazard areas of the floodplain and can lower flood damages by contributing to reductions in personal loss, danger to personal safety and stress and post-flood trauma (Floodplain Development Manual, NSW).

While house purchasing is the most expensive of the categories, it is also the most effective in removing residents from the risk of flood inundation. To improve resilience to homes that are exposed to flood risk, encouraging some element of building control measure helps to reduce flood related consequences to an individual building. Figure 6-18 shows the relationship between cost and effectiveness of building control measures as per *Flood Resilient Building Guidance for Queensland, (2019)*.

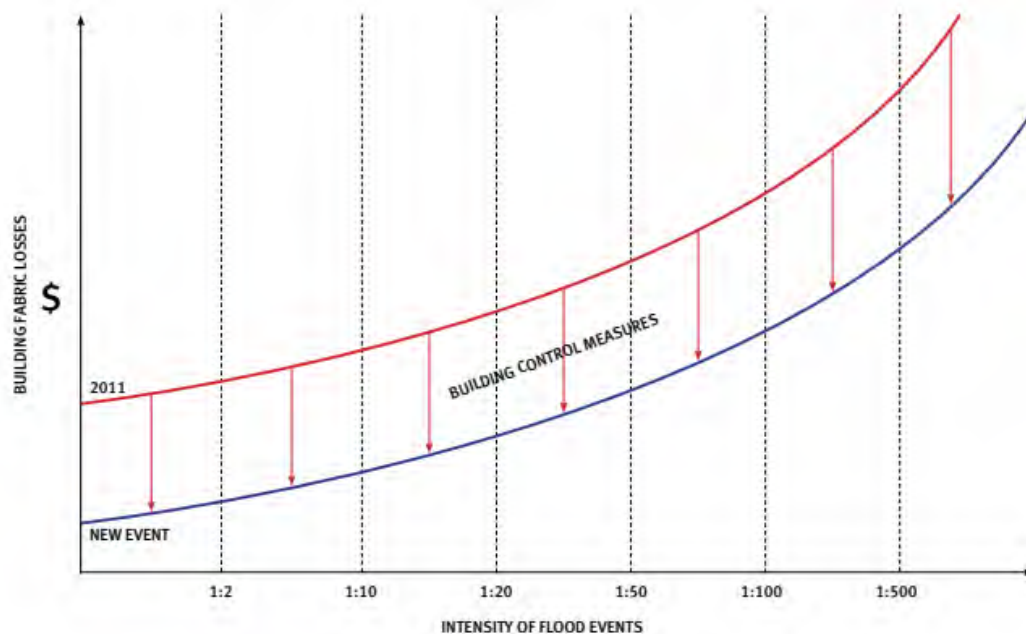


Figure 6-18 Relationship Between Cost and Effectiveness of Property Specific Actions (Building Control Measures) (Note: Indicative Only and Not to Scale) extracted from Flood Resilient Building Guidance for Queensland Homes (State of Queensland, 2019)

This measure applies to individual homeowners and is a form of adaptation to existing and future flood risks. The economic case increases when considering increased rainfall intensity and frequency associated with climate change.

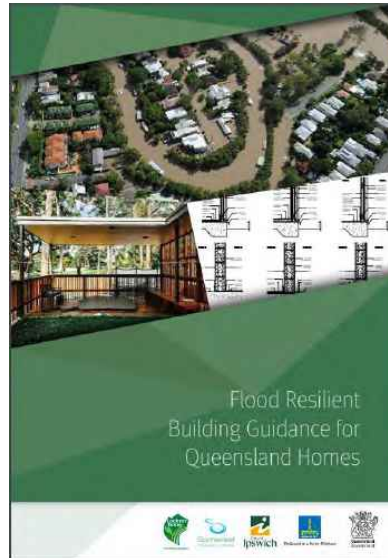


Figure 6-19 Flood Resilient Building Guidance Example

Property specific actions that create flood resilience are considered a viable option for reducing impacts of flood events up to a 1 in 100 AEP flood level (*Flood Resilient Building Guidance for Queensland, 2019*).

Property specific actions include house purchase, house raising and flood-proofing via retrofitting flood resilient building materials.

There are a number of guidelines, project reports and standards that provide homeowners and the industry the tools to implement flood resilient design, one of which is the Flood Resilient Building Guidance for Queensland, 2019. The aim of this report is to present a method and shortlist of buildings potentially eligible for a program of property specific actions and assess the economic viability of implementation, not to provide analysis of the effectiveness of the specific flood resilient building activities. Therefore, this section heavily references the guidelines presented in these materials.

6.4.4 Evolution of Property Screening Process

Existing or complete property specific actions programs such as in Brisbane City Council and Moree Plains Shire Council (NSW) have used an eligibility criteria based upon exposure to a chosen frequency flood event - such as the 1 in 2 AEP or properties that have floor levels below a 1 in 100 AEP. These approaches do not consider exposure to hazard. The Ipswich Integrated Catchment Management Plan (Water Technology, 2021) considers both frequency of flooding and hydraulic hazard. As part of this study, it has been considered that hazard should be incorporated into the prioritisation of properties for property specific actions process of the FRMS.

The first draft of screening potentially eligible properties for property specific actions considered the case study approach of exposure to a high frequency flood event (more frequent than the 1% AEP design flood event) in combination with exposure to high hazard. Properties inundated above floor level in frequent design events and exposed to H5 and H6 in either the 1% AEP or 1% AEP Climate Change design events would be listed for property purchase, whereas those exposed to H1 to H4 would be eligible for retrofitting building materials.



Further prioritisation of properties eligible for building materials will be ranked by damages as this will provide the best case in terms of cost-benefit.

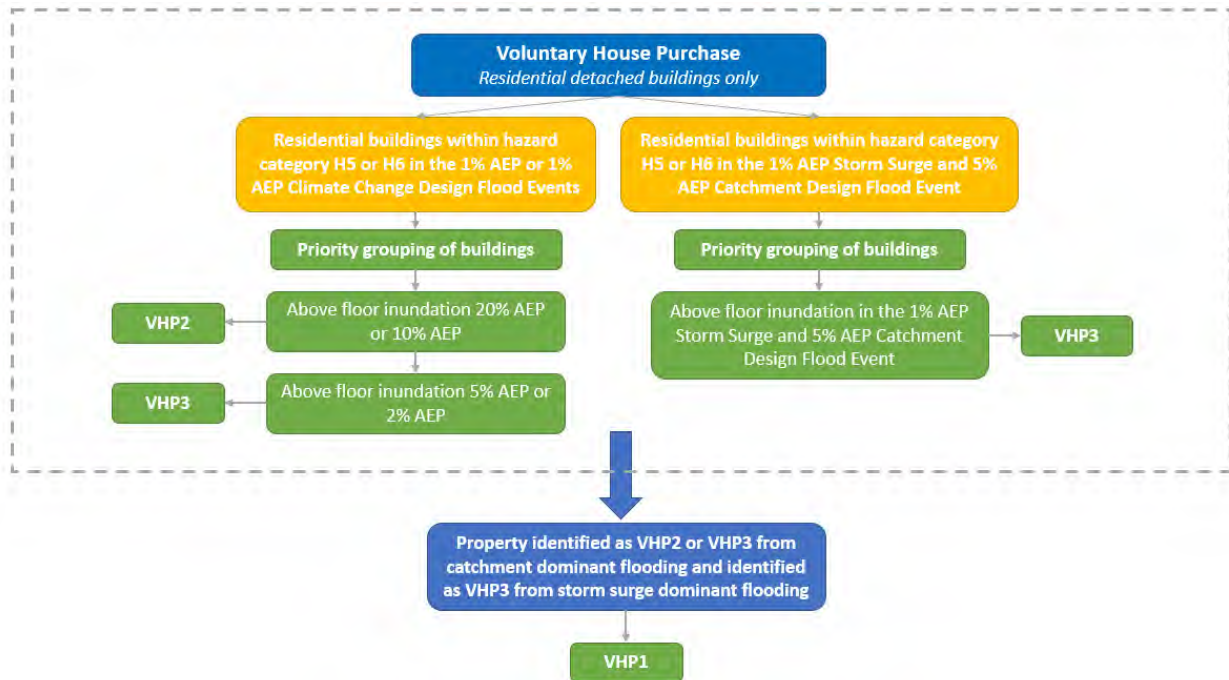


Figure 6-20 Process for Screening and Prioritising Properties Eligible for Voluntary House Purchase

6.4.5 Voluntary House Purchase

6.4.5.1 Eligibility and Prioritisation

Table 6-9 summarises filters applied to buildings exposed to flood hazards to determine a prioritised list of buildings potentially eligible for Voluntary House Purchase.

Table 6-9 Voluntary House Purchase – Eligibility and Prioritisation

Filter	Description
Residential Detached Buildings Only.	A voluntary house purchase program will only be open to property owners of detached residential dwellings and does not include multi-unit dwellings ¹ .
Catchment Events	Residential buildings exposed to the hazard categories H5 and H6 in the 20% (1 in 5), 10% (1 in 10), 5% (1 in 20), 2% (1 in 50) AEP, 1% AEP design flood events. Residential buildings exposed to the hazard H5 and H6 and inundated above floor in the 1% AEP Climate Change Event.

¹ Note: there are limitations with building and floor level classification. Subsequently, properties eligibility will need to be confirmed.



Filter	Description
Storm Surge	Residential buildings exposed to the hazard categories H5 and H6 in the 1% AEP storm surge and 5% AEP catchment event and experience above floor inundation.
Priority Grouping of Buildings	
<ul style="list-style-type: none"> Identified under both a catchment and storm surge dominant event 	<ul style="list-style-type: none"> For the first group of eligible buildings, the property must be identified in any priority group under both catchment event flooding and storm surge event flooding.
<ul style="list-style-type: none"> 20% AEP, 10% AEP 	<ul style="list-style-type: none"> For the second group of eligible buildings, floodwaters of the 20% AEP or 10% AEP must inundate the floor level and the property must be subject to a hazard category H5 or higher in the 1% AEP Climate Change event.
<ul style="list-style-type: none"> 5% AEP and 2% AEP 	<ul style="list-style-type: none"> For the second group of eligible buildings, floodwaters of the 5% AEP or 2% AEP must inundate the floor level and the property must be subject to a hazard category H5 or higher in the 1% AEP Climate Change event.
<ul style="list-style-type: none"> 1% AEP storm surge and 5% AEP catchment 	<ul style="list-style-type: none"> The third group of eligible buildings under storm surge flooding, must inundate the floor level and be of hazard category H5 or higher.

The results of this assessment have been provided to Fraser Coast Regional Council. Due to the private nature of the information, the properties identified have not been reported. However, Table 6-10 below reports on numbers identified in each priority.

Table 6-10 Priority Buildings Eligible for Voluntary House Purchase

Priority Grouping	Number of Properties Identified
VHP1	1
VHP2	None
VHP3	317

6.4.6 Retrofitting Building Materials

6.4.6.1 Eligibility and Prioritisation

House raising is a specific retrofitting activity that only applies to separate subset of buildings, i.e., Fully Detached High Set and Fully Detached Single Storey on stumps. The property database developed does not have this level of information. However, a process has been developed that could be used in the future should this information become available.


Table 6-11 Retrofitting Building Materials – Eligibility and Prioritisation

Filter	Description	
Residential Detached Buildings Only.	A retrofitting building materials program will only be open to property owners of detached residential dwellings and does not include multi-unit dwellings.	
H1 to H4	Residential buildings exposed to the hazard category H1 to H4. Buildings are NOT exposed to potential structural failure associated with H5 and H6.	
1 in 20 AEP	At a minimum, floodwaters of the 1 in 20 AEP must be inundate the floor level. Those that do not meet this criterion will not be eligible for retrofitting building materials or house raising. This is based on whether the building has been assigned a damage value for the 1 in 20 AEP and is therefore considered to be affected by over the floor flooding in this event.	
Priority Grouping of Buildings		
Annual Average Damages (AAD) Above \$10,000	The first priority group of eligible buildings was assigned to those buildings experiencing the highest AAD across all flood events.	RBM1
(AAD) \$5,000 to \$10,000	The second priority group of eligible buildings was assigned to those buildings experiencing AAD within this range across all flood events.	RBM2
(AAD) \$1,000 to \$5,000	The third priority group of eligible buildings was assigned to those buildings experiencing AAD within this range across all flood events.	RBM3
House Raising Building Types		
Building Type: FDHS FDSS – Stumps	Only buildings that are Fully Detached Single Storey raised on stumps and Fully Detached High Set will be eligible for house raising.	Subset of Groups RBM1 to RBM4 as above.

6.5 Emergency Management

6.5.1 Context

Emergency Management or Disaster Management is often described through the cycle of Prevention Preparedness, Response and Recovery (PPRR). Generally, **Prevention** is covered by the investigations into physical flood mitigation options in the Structural Options Assessment, Property Specific Action and Land Use Planning chapters. **Preparedness** and **Recovery** can be achieved or improved through community awareness, education and resilience activities. Emergency management aims to address the **Response** and **Recovery** phases.

The **Response** category provides approaches to improve how the residents and the community in the Toan Toan Creek catchment and Lowlands Lagoon area respond better to flood events. These approaches minimise the impacts of a given flood event and help to build a flood resilient community. In the context of improving response, flood forecasting, flood classifications, warning and evacuation, are explored further in this chapter. The **Recovery** phase deals with elements that assist with community recovery and ability to operate during and immediately after a disaster event.



The responsibility for emergency management actions is a complex arrangement that is often discussed. In Queensland the tiered arrangements are established to promote cooperation between community, non-government organisations, local government and the State. Each local government, including Fraser Coast Council has established a Local Disaster Management Group (LDMG) who are primarily responsible for managing disasters in their area. As a disaster event grows, e.g., from localised creek flooding to a regional scale flooding so does the complexities and the level of support required. It is at this point the tiered arrangements through the district, State and some cases National mobilise to support local operations. Figure 6-21 shows the structure of National and Queensland Disaster Management Arrangements.

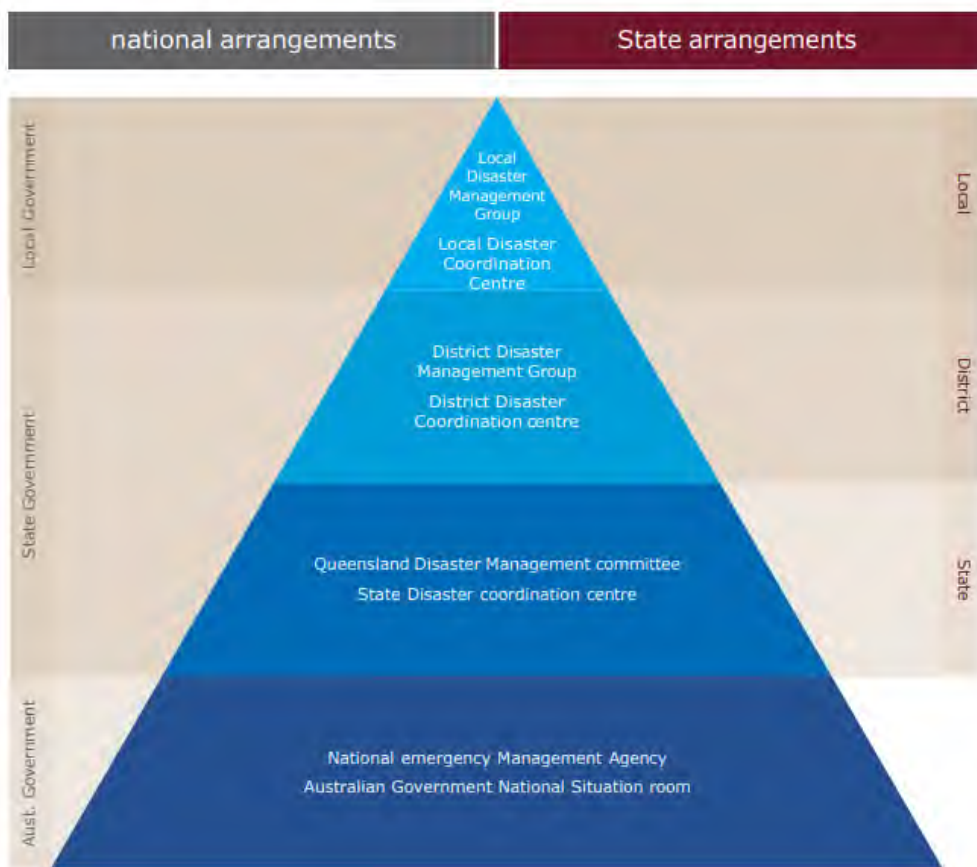


Figure 6-21 Queensland Disaster Management Structure (Queensland State Disaster Management Plan, 2023)

6.5.2 Emergency Management Options

6.5.2.1 Complete a Toosan Toosan Catchment and Storm Surge Evacuation Assessment

The Toosan Toosan and Lowlands Lagoon catchment has the potential to have very short warning times in combination with a road network with low immunity and large areas of the floodplain situated in low flood islands. This combination results in the study area having a very high evacuation risk with the potential for people to become trapped in areas that are flood prone.



This risk is further increased when the results of the vulnerability assessment are considered. The Fraser Coast LGA has a significantly higher physical vulnerability than the Queensland average. Further to this, Council has advised the study area has a known low awareness of flooding. Both of these types of vulnerability are known to increase the evacuation risk.

It is recommended to complete a Toon Toon Catchment and Storm Surge Evacuation Assessment. The objectives of this assessment would be to improve the understanding of and planning for evacuation constraints across the study area.

The scope of this assessment should be developed in detail with collaboration between Disaster Management officers and Engineers. The following list is not exhaustive, however, identifies some scope items that could be included in this assessment:

- Develop an evacuation sequence plan based on sector mapping. This should consider a range of different size flood events and a number of storm surge scenarios (in combination with a realistic catchment event). The temporal patterns selected for evacuation planning may differ to design event mapping.
- Identify high priority areas for evacuation. This may be based on a combination of factors including, isolation, warning time or high hazards.
- Identify priority roads for evacuation. An outcome of this may include the identification and prioritisation of roads to be upgraded.
- Consider how road trafficability may change when considering fire trucks. Note, this would be for internal use only and should only be used to inform emergency planning as it does not represent evacuation capability.
- Consider how catchment and storm surge flooding in neighbouring catchments may impact evacuation. If the information is available, consider completing this assessment on a regional scale.
- Prepare graphs for key evacuation routes displaying rainfall depth, time versus water level at the sag point. Consider developing these for a range of events to show how the potential timing can change for different types of events.
- Identify rainfall triggers that can inform disaster management planning (i.e., lean forward, stand-up, evacuation of key areas etc.).
- Identify priority evacuation centres across the region. It will be important to consider catchment and storm surge flooding in neighbouring catchments. A list of possible evacuation centres should be developed with key information provided for each centre. Relevant information includes:
 - Generator availability
 - Centre capacity
 - Facilities available (bathrooms, showers, access for people with a disability, kitchen, running hot water)
 - Access to privacy
- Develop flood information collateral (linked to recommendation in Section 6.3.2.2), which provides education on different types of flooding (i.e., catchment dominant versus storm surge) and how important evacuation is in these types of events.

6.5.2.2 Total Flood Warning System Review

The Toon Toon and Lowlands Lagoon catchment have very limited time available from commencement of the storm event and onset of flooding. The time to inundation assessment shows that almost the entire floodplain is subject to less than 30 minutes time to inundation. It should be noted this assessment is based on a set of 10 temporal patterns across 4 storm durations. The statistical mean temporal pattern was selected



from each storm duration, and the shortest time to inundation has been adopted across each storm duration. Therefore, depending on the storm duration, temporal variation, and location of the storm the time to inundation will vary.

Given this short time to inundation, the catchment is classified as a flash flood catchment and the Bureau of Meteorology does not provide flood warnings for flash flood. This recommendation is to complete a total flood warning system review to investigate opportunities to improve forecasting and warning across the study area.

The scope of this review should be developed in conjunction with Council's disaster managers and engineers. However, scope items included on the review should be based around the components of a total flood warning system as defined by AIDR (2009) and shown in Figure 6-22 below. The review phase is an important component of a total flood warning system, as it provides a mechanism to identify elements that have worked well and where there may be gaps. As technology advances significantly (e.g., radar rainfall, faster forecasting systems etc.) and data availability changes, it is important to undertake regular reviews and identify opportunities for improvement.

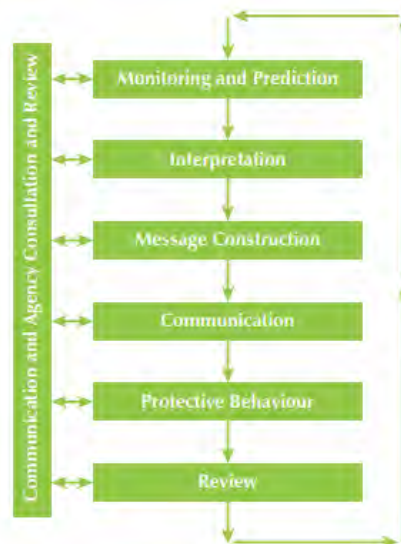


Figure 6-22 Total Flood Warning System (Source – AIDR, 2009).

The total flood warning system ranges from the monitoring (i.e., rainfall gauges, water level gauges etc.) and prediction (i.e., forecast systems) phase through to the communication of flood intelligence and warnings to enable disaster managers and the community to take protective action. The complexity of a total flood warning systems can vary significantly and range from simple paper-based systems to use of complex forecasting software. However, any forecasting and warning system needs to be easy to use and understand, provide intelligence so that both consequences and actions are understood and empower disaster managers and the community to take protective action.

It is important that a review of the total flood warning system includes consideration of more than just the monitoring and predication phase, and also reviews how flood intelligence is developed and disseminated to facilitate protective action from both the community and Council. Impact based forecasts and flood intelligence differ from real-time or forecast flood information as it takes this information and also describes the associated consequence (i.e., a tide level above a certain level corresponds to flooding to key roads which may result in an evacuation trigger). Impact based flood intelligence provides disaster managers meaningful information that



can be used to make decisions and take action. Forecast and real-time flood information are only useful when the system links these to consequences and required actions.

The scope of this review should be developed in conjunction with disaster managers and Council engineers. However, scope items may include but are not limited to the following:

- Review of flood warning infrastructure (i.e., rainfall and river gauges) to identify gaps and locations where new gauges may be beneficial,
- Identify trigger levels across the study area (this may refer to rainfall depths across different durations, or tidal levels)
- Link trigger levels to actions required and consequences (i.e., when do evacuation alerts need to be sent out, when will a certain road be inundated, when will certain areas start to become isolated etc.)
- Explore technical opportunities to improve flood monitoring and prediction across the study area,
- Review the current internal and external communication method. Consider if disaster managers and the community are receiving the information when they need and how they need this information,
- Community engagement and education prior to an event to prime the community to the type of warnings Council may release (linked to recommendation in Section 6.3.2.2),
- Any other known limitations within the study area.

6.5.2.3 Upgrades to the Fraser Coast Disaster Dashboard

Fraser Coast has an existing public facing disaster dashboard, which provides a single location for all information relating to disaster events. This dashboard is currently considered a good example of an effective disaster dashboard and includes a lot of useful information readily viewable on both fixed platforms and mobile devices. As disaster forecasting and warning systems develop and advance, and with improvements to how this information is disseminated, dashboards should be continually reviewed and updated.

Based on the findings of this Flood and Coastal Risk Management Study, consider the following updates to the Fraser Coast Disaster Dashboard:

- Include flood risk and mapping outputs as part of future community awareness programs.
- Addition of current beach conditions,
- Include a layer of rain and river gauges across the region including links for each of the gauges.

6.6 Land Use Planning

Land use planning and development controls represent one of the most cost-effective options for minimising future flood risk. The Toon Toon Creek and Lowlands Lagoon Coastal and Flood Risk Management Study has not provided recommendations for amendments to the Fraser Coast Planning Scheme, but rather has provided an assessment on the current and future exposure based on the current zoning.

6.6.1 State Planning Policy

The State Planning Policy (SPP) was delivered in 2017 and SPP compliant planning schemes are required to provide an evidence-based and risk-based approach to land use planning under the State interest for natural hazards risk and resilience. Risk-based land use planning recognises that different uses will have different risks associated with natural hazards and some uses are compatible with certain risks whereas other uses will not be. For example, the risk associated with an aged care development located in an area that floods frequently is different to parkland. A risk-based approach to land use planning aims to ensure land is zoned in a way that is compatible with the existing risk.








While this coastal and flood risk management study focuses on flood risk only, land use planning is required to consider and respond to more than just flooding. The SPP identifies 17 state interests, of which natural hazards, risk and resilience is one of these. With that said, it is important that development is not prevented but rather that development is undertaken in a way that is compatible with and improves the flood risk. The SPP requires planning to mitigate risk to an acceptable or tolerable levels and identify property at intolerable risk. Development in locations where intolerable risk cannot be mitigated must be avoided.

An important component of an SPP compliant planning scheme is an accompanying flood risk assessment delivered in line with the international standards for risk management ISO31000:2019. Fraser Coast Regional Council have already completed a Flood and Coastal Inundation Risk Assessment Project. However, the findings of this FRMS were not included, and should be used to further inform integration into the planning scheme.

Broadly the SPP steps for planning scheme risk based approaches are:

Table 6-12: State Planning Policy steps

State interest policy (summarised)	Progress
1 – Natural hazard areas are identified (i.e. mapped)	 Complete
2 – A fit-for-purpose risk assessment is undertaken	 Tooan Tooan to be added
4 – Development avoids natural hazard areas or mitigates risk to an acceptable or tolerable level	 Tooan Tooan to be added
5 – Development incorporates a range of risk reduction and resilience measures	 Tooan Tooan to be added
6 – Community infrastructure is located and designed to limit risk and maintain functionality	 Tooan Tooan to be added

6.6.2 Planning Scheme Integration

Fraser Coast Regional Council has recently completed a Flood and Coastal Inundation Risk Assessment and Planning Scheme Integration Project for Flood and Coastal Hazards for the purposes of SPP compliance.

6.6.2.1 Exposure analysis results

The outputs of the flood risk assessment were aggregated to accord with Coastal Management District boundaries so that risk profiles could be compared with the risk posed by coastal inundation hazards. Accordingly, the Tooan Tooan and Lowlands Lagoon catchment is reported within the Zone 3: Eli Waters – Urangan.



In Zone 3 Eli Waters-Urangan there are 3006 lots exposed to intolerable risk. There are 8915 lots mapped as tolerable, 8319 of which currently contain an active or potential residential land use, as shown in Figure 6-23. Of the 2,715 residential lots exposed to intolerable risk in this zone, driven by 'high' and 'very high' flood hazard exposure, most of which are exposed to time to inundation of under 6 hours associated with urban flash-flood catchments. It is also noted that 1138 lots are mapped within 'single extent only', which corresponds with flood modelling that does contain hazard (depth-velocity) data and tolerability is not currently able to be assessed. The lots mapped within the 'single extent only' area are outside of the Tooan Tooan Creek and Lowlands Lagoon catchment and more detailed flood modelling may be available when modelling in those catchments is updated.

There are 145 commercial and industrial lots mapped as intolerable risk in this zone, the driver of intolerable risk is 'very high' and 'high' hazard and a time to inundation less than 6 hours. Of these, 60 commercial and industrial lots are also exposed to a duration of inundation of more than 12 hours, including 14 lots in the Pialba Principal Centre.

Over 40% of Emerging Community zone (approximately 17ha) in Eli Waters-Urangan is exposed to High hazard associated with deep flood waters (1.2m to 2.0m) as summarised in (Table 6-15).

Table 6-13 Summary of exposure in Zone 3 – Eli Waters Urangan

Land Use Activity	Acceptable	Tolerable	Intolerable	Single Extent Only	Total
Residential	3411	8319	2715	1098	15543
Commercial	86	485	124	10	705
Industrial	247	32	21	0	300
Other	195	79	146	30	450
Total	3939	8915	3006	1138	16998

TTI and DOI flood risk factors are multipliers in this zone. The distribution of exposure to TTI and DOI is summarised in Table 6-14. In locations where TTI is less than 6 hours, flood warning time is generally insufficient for preparation and response by agencies such as Council and SES during flood events. Flash flooding areas have been difficult to provide flood forecasting services in the past.

Of particular note is the suburb of Urangan which contains 708 residential lots assessed as intolerable risk (Figure 6-24). These lots are predominantly in the medium and low density residential zone. A combination of flood risk factors is noted in Eli Waters, Torquay, Urangan, Scarness and Urraween.

In Torquay and Urangan, where there is a distinct urban flowpath, there are 173 high density residential lots that are exposed to intolerable flood risk. The intolerable risk in these suburbs is driven by exposure to high hazard (101), or TTI of less than 6 hours, associated with flash flooding in urbanised catchments.

Table 6-14 Summary of lots exposed to TTI and DOI in Zone 3 Eli Waters Urangan

Locality	Lots exposed to TTI <6hrs	Lots exposed to DOI >12hrs
Eli Waters	1068	742
Pialba	1117	411
Point Vernon	1673	805
Scarness	718	250



Locality	Lots exposed to TTI <6hrs	Lots exposed to DOI >12hrs
Torquay	1529	484
Urangan	2533	475
Urraween	2069	980

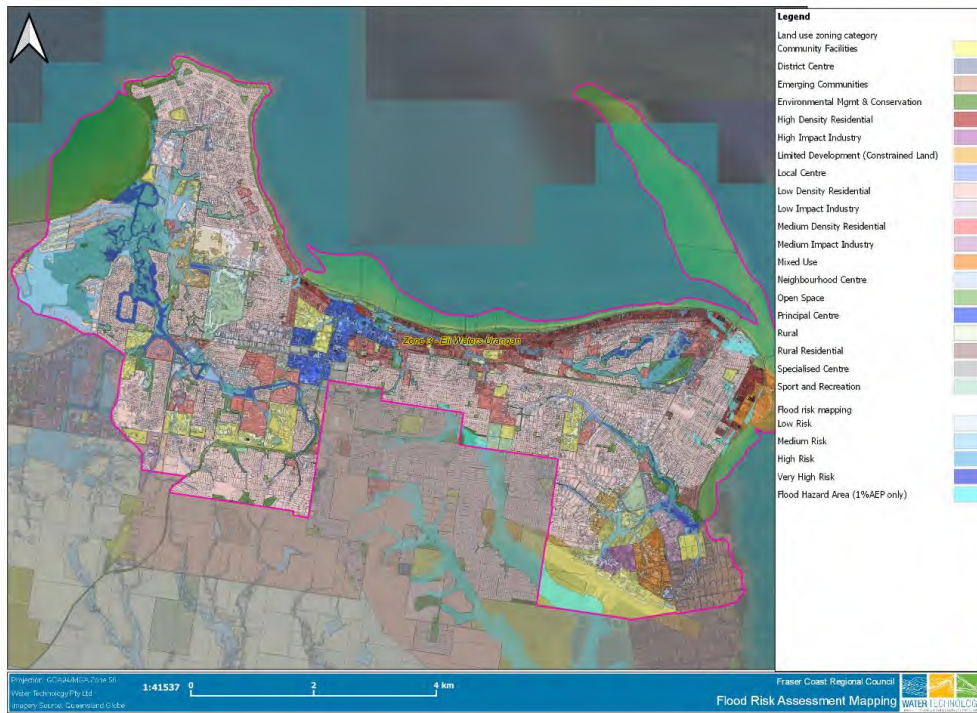


Figure 6-23 Flood risk assessment mapping – Eli Waters Urangan

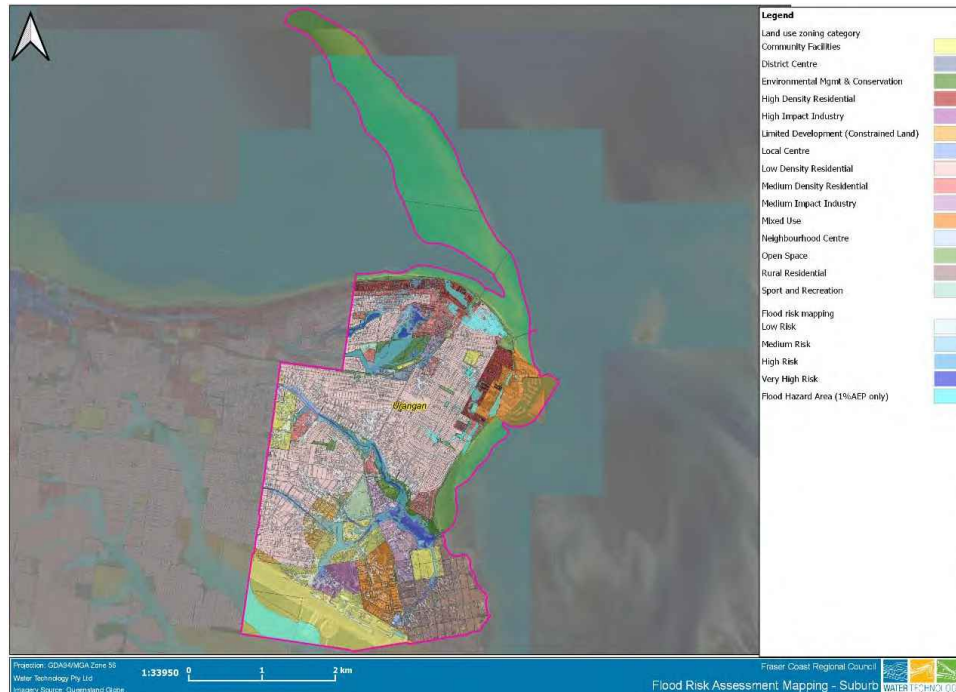


Figure 6-24 Flood risk assessment mapping – Suburb of Urangan

The risk assessments prepare the groundwork for strategic reconsideration of the settlement pattern and two overlays for a refreshed FCRC planning scheme. The fundamental changes for the refreshed Flood and Coastal Hazards overlay mapping are:

- Data is more accurate and has been locally contextualised especially in the case of coastal hazards
- The community has already seen the Coastal Futures work and is quite flood aware especially around Maryborough
- Both overlays already existing in the scheme, however a key change will be stepping up regulation in the face of more accurate information
- Both overlays have been brought into line with Council's obligations under the SPP
- This means a key change is the ability to better define risk in a risk-based planning constraint map. This aspect will require some explanation to community

In terms of the findings, overall, coastal hazards pose a greater threat to the community than flood. There are some impacts in the coastal areas which can be dealt with through avoidance and strong policy around maintaining flood storage and floodway corridors.

The Planning Scheme Integration Project also noted that coastal communities will be significantly impacted by coastal hazards in the near future and towards the end of the century. This is primarily driven by Storm Tide Inundation in the urban areas with depths greater than 1.2 m covering large areas of the coastal townships.



Table 6-15 Residential land use exposure – Zone 3 Eli Waters Urangan

Residential category	Total Area in LGA (ha)	Zone 3 Eli Waters Urangan									
		Zone 3 area (ha)	Zone 3 area (%)	Very High		High		Medium		Low	
				Area affected (ha)	Area affected (%)	Area affected (ha)	Area affected (%)	Area affected (ha)	Area affected (%)	Area affected (ha)	Area affected (%)
Emerging Communities	2060	43	2.11	0.38	0.87	17.43	40.12	4.16	9.58	6.82	15.71
High Density Residential	239	239	100.00	0.29	0.12	10.76	4.49	9.11	3.80	19.20	8.02
Medium Density Residential	513	316	61.55	3.44	1.09	20.64	6.53	15.41	4.88	62.57	19.80
Low Density Residential	5320	1423	26.76	3.42	0.24	53.36	3.75	30.82	2.17	204.50	14.37
Rural Residential	9933	98	0.98	0.40	0.41	1.61	1.65	0.69	0.71	11.29	11.56
Total	18065	2120	11.73	7.92	0.37	104	4.90	60.20	2.84	304.4	14.36

6.6.3 Findings of the Tooan Tooan Creek and Lowlands Lagoon Coastal and Flood Risk Assessment

The coastal and flood risk assessment explored 7 main factors in understand risk across the study area, namely:

- Flood behaviour including frequency and hazard,
- Type of development or land use exposed,
- Economic impacts from flooding,
- Isolation caused by flood waters creating flood islands,
- Time to inundation of roads and buildings,
- Duration of inundation of roads and buildings,
- Vulnerability of residents.

These factors can be used to understand which areas of the floodplain are considered acceptable, tolerable or intolerable to flood risk. Typically, defining these areas requires community consultation as tolerability is dependent on the communities awareness of and resilience to flooding. Subsequently, this study has not mapped areas of acceptable, tolerable or intolerable across the study area, however, does explore each risk factor with respect to the current land use zoning. Key findings of the Tooan Tooan Creek and Lowlands Lagoon Coastal and Flood Risk Assessment are listed below:

- Land Use exposure to flood behaviour:



- 13% of the residential lots are inundated (by more than 5%) in the 20% AEP catchment dominant design flood event. This increases to 26% of residential lots are inundated (by more than 5%) in the existing climate 1% AEP catchment dominant design flood event.
- 51% of residential lots are exposed (by more than 5%) under a future climate scenario (either the 1% AEP RCP8.5 catchment design flood event, or the 2100 1% AEP storm surge and 5% AEP RCP8.5 catchment event).
- 28% of residential lots are exposed to high hazards (H5 or H6) in the 2100 1% AEP storm surge and 5% AEP RCP8.5 catchment design flood event. Of these residential lots, 84% of high density residential lots are exposed to high hazards in the 2100 1% AEP storm surge and 5% AEP RCP8.5 catchment design flood event.
- 50% of industrial lots, 64% of community facilities and 33% of commercial lots are exposed to flooding (by more than 5%) in the 1% AEP catchment design flood event.
- Economic Impacts from flooding:
 - The main business district, in the vicinity of Pialba Place, has the highest cluster of property damages. This is due to size of the commercial premises and associated economic value of the businesses and contents. Small increases in flood depth can incur significant increases in flood damage.
 - While residential damages for storm surge dominated events cannot be estimated as there is only the 1% AEP storm surge design event available, the location of where residential damages are highest is along the esplanade. It should be recognised that this area overlaps with areas identified as having high risk for other reasons including being a low flood island, low road immunity and high flood hazards.
 - The study area has high exposure to the effects of climate change. For catchment dominated flooding, total flood damages for the 1% AEP design flood event under a future climate scenario is almost double the total flood damages for the existing climate. This is more extreme when comparing storm surge dominated flooding. The total flood damages for the 1% AEP 2100 storm surge and 5% AEP RCP8.5 design flood event experiences almost a 300% increase compared to the total flood damages for the existing climate 1% AEP storm surge and 5% AEP catchment design flood event.
- Isolation from flooding:
 - Figure 5-28 maps lots within low flood islands for each land use. This figure shows the majority of lots within the low flood island are residential uses and located primarily along the esplanade. Residential uses within low flood islands are considered to have high flood risks due to the potential to become trapped and the associated risk to life.
 - Figure 5-24 maps road immunity across the study area. This mapping indicates the road network has high immunity to flooding in the upper parts of the catchment but lower immunity in the lower part of the catchment including along the esplanade. While there are a significant number of sections of road that are not untrafficable until either the 0.2% AEP or the PMF, these roads are connected to section inundated in more frequent design events including some sections inundated in the 20% AEP.
- Time to inundation and duration of inundation:
 - Given the size of the catchment and nature of flooding, almost the entire study area is exposed to flash flooding with very short warning times (e.g., some areas with less than 30 minutes from the start of the storm to flooding above 0.1 m). This is consistent across both catchment dominated and storm surge dominated flooding.
 - Generally, the catchment experiences flash flooding which rises quickly and also recedes quickly. However, the duration of inundation assessment identified that the presence of the lake system in combination with largely flat topography results in some areas that experiences longer durations of



inundation (over 18 hours). Figure 5-32 and Figure 5-33 map the duration of inundation across the study area.

- When considering the very short warning time in conjunction with areas located in low flood islands and the low road immunity (for example the residential zoned land along the esplanade), the relative flood risk increases.
- Vulnerability
 - A community vulnerability assessment has been completed and shows areas of higher relative community vulnerability generally aligns with areas of higher exposure to flooding. For land use planning, it is also important to understand the vulnerability of the use. It should be noted that in the Tooan Tooan and Lowlands lagoon study area, residential uses are by far the most exposed land use. Generally, residential uses are considered to have higher vulnerability to flooding when compared to other uses such as commercial, industrial, sports and recreation, open space or environmental management.
 - Sensitive and critical uses such as child care facilities, medical facilities, essential services etc. are generally included in the community facilities land use zone. There would need to be further work completed to understand the exact nature of each lot zoned for community facilities, however, 80% of lots zoned for community facilities are located within the floodplain.

6.6.4 Land Use Planning Approach

The Inundation Risk Amendment Project provided the following deliverables:

- The Flood and Coastal hazards issues and options report (December 2021) which included a place-based assessment and hazard analysis by suburb
- The Flood and Coastal LUP Response Report (June 2022) which included all option for planning policy, SP compliance and regulatory pathways
- A Coastal hazards overlay code
- A Flood hazard overlay code
- Recommended text for Part 3 – Strategic Framework
- Recommended Tables of Assessment
- A drafting guidance report to implement the two codes and the tables recommended text
- A Coastal hazards planning scheme policy; and
- A Flood hazard Planning scheme policy

Together the approaches outline in these document and the drafted overlay codes will address the risks faced in the Tooan Tooan catchment. In addition, Meridian Urban completed a zone analysis that identified lots at intolerable risk, per the SPP requirements, in order that Council could make decisions on a balance between any rezoning and application of regulatory provisions. To maintain that approach across the region it is recommended that the zone analysis is reviewed for the Tooan Tooan catchment. In addition, the material already delivered to Council should also be reviewed to ensure the outcomes of this study are appropriately incorporated such as specific mentions of the catchment and risk level in the strategic framework.



Table 6-16 Recommended Land Use Planning Options

Land Use Planning Option	Details
L01 - Proposed Flood Hazard Overlay Updates	L01a – No bulk earthworks in the identified floodway Landform changes within the floodway will impact flood behaviour as these areas convey the bulk of the flood flows. Protecting these areas from bulk earthworks can help manage cumulative flood impacts from development, as seen in Section 5.3. It may be worthwhile, to complete an additional study to better understand which areas are most important to prevent bulk earthworks.
	L01b – Update flood hazard overlay to use results of this study and ensure consistency with Inundation Risk Amendment Project. At the next opportunity, update the flood hazard overlay to use results of this study.
L02 – Complete a study to investigate risk based and climate adaptive land use responses to manage existing and future flood risk.	This study identifies a number of areas with very high flood risk that are considered incompatible with the existing land use. However, it is outside the scope of this study to explore land use responses, such as planning scheme amendments, land acquisition, tenure or zone changes to address this risk. It is recommended a study is completed that investigates this in more detail. This may include consideration of a combination of both structural mitigation, resilient buildings and land use planning.

6.6.5 Limitations

The land use planning comments above focus on updating work already underway. It does not explore detailed options for how the settlement pattern can be maintained or changed to adapt to the risk in the study area. It is recommended that future studies consider the following:

- Explore possible risk based land use planning scenarios for how the settlement pattern can be maintained or modified to ensure development occurs in a way that is compatible with both existing and future flood risk and still meet Council’s growth intent.
- Undertake an economic need analysis of specifically zoned land, such as diverse residential or commercial zones.
- Complete a detailed lot-scale financial feasibility of development using proposed or modified development scenarios.
- Complete an analysis of infrastructure capacity to service the modified or proposed development scenarios.

6.7 Detailed Options Multi-Criteria Assessment

A detailed multi-criteria risk assessment has been completed based on the agreed criteria and rank, as described in Section 6.1.1. Figure 6-25 below presents the results of this assessment, with the detailed scoring provided in Appendix H. The results of this assessment in conjunction with discussion with Council, have informed the identification of which options are included in the flood risk management plan.



Multi Criteria	Criteria Weighting	Options									
		COM001: Bridge Widening + Channel widening + Main Street trunk drainage	COM002: Bridge widening + Pialba Place drainage	COM003: Bridge widening + Channel widening	LUP001: Flood Hazard Overlay Updates	LUP002: Complete a study to investigate risk based and climate adaptive land use responses to manage existing and future flood risk.	Resilient Property Measures: Voluntary House Purchase and Retrofitting	Community Awareness & Resilience	EM001: Toosan Catchment and Storm Surge Evacuation Assessment	EM002: Flash Flood and Tidal Inundation Flood Intelligence System	EM003: Upgrades to the Fraser Coast Disaster Dashboard
Cost benefit analysis	7%	-2	3	-2	0	0	0	0	0	0	0
Economic Multipliers	5%	-1	1	-1	0	0	2	0	0	0	0
Financial feasibility	7%	-3	-3	-3	0	0	-1	2	1	1	1
Technical feasibility	4%	-2	-2	-2	2	1	3	0	0	0	0
Approval / legal feasibility	5%	-1	-1	-1	2	-1	-1	0	0	0	0
Long term viability	6%	-2	-1	-2	0	0	3	0	0	0	0
Political support	5%	-1	0	-1	0	0	1	1	2	2	2
Climate change feasibility	5%	1	1	1	1	3	2	2	1	1	1
Impact on critical or essential infrastructure	6%	2	2	1	0	2	0	0	1	1	1
Community support	5%	-1	0	0	-1	-1	1	0	0	2	2
Community awareness and resilience	5%	1	1	1	2	2	1	2	0	2	2
Improved water quality	7%	0	0	0	1	1	0	0	0	0	0
Ecosystem health	6%	1	1	1	1	1	0	0	0	0	0
Impact on vulnerable properties	7%	1	1	1	0	2	2	0	0	0	0
Change in building exposure	5%	1	1	2	0	2	2	0	0	0	0
Change in flood hazard and risk to life	7%	1	1	1	0	2	0	0	0	0	0
Impact on emergency services	4%	0	0	0	0	2	1	1	2	2	0
Impact on evacuation	4%	1	1	1	0	0	1	0	3	3	1
Total Score		-0.24	0.37	-0.2	0.41	0.9	0.85	0.43	0.48	0.68	0.52

Figure 6-25 Detailed Multi-Criteria Assessment



7 FLOOD RISK MANAGEMENT PLAN

The flood risk management study investigated a suite of flood risk management options including structural, landscape management, community awareness and resilience, resilient property measures, emergency management and land use planning options.

These options have been assessed using a comprehensive multi-criteria matrix to understand each options social, economic and environmental impact in conjunction with their ability to reduce flood risk in the Toon Toon and Lowlands Lagoon Catchment.

The following table presents the final results and outcomes of this assessment. While it is recommended, these be considered by Fraser Coast Council, some will require further investigation to ensure options align with the communities and Councils priorities.

Table 7-1 Prioritised List of Flood Risk Management Options

Management Option	Score	Rank	Priority (L-H)
LUP002: Complete a study to investigate risk based and climate adaptive land use responses to manage existing and future flood risk.	0.9	1	H
EM002: Flash Flood and Tidal Inundation Flood Intelligence System	0.82	2	H
EM001: Toon Toon Catchment and Storm Surge Evacuation Assessment	0.72	3.5	M
Resilient Property Measures: Voluntary House Purchase and Retrofitting	0.72	3.5	M
Community Awareness & Resilience	0.67	5	M
EM003: Upgrades to the Fraser Coast Disaster Dashboard	0.57	6	M
LUP001: Flood Hazard Overlay Updates	0.41	7	M
COM002: Bridge widening + Pialba Place drainage	0.37	8	L
Coastal Management: Coastal Processes Management Study	0.28	9	L
COM003: Bridge widening + Channel widening	-0.2	10	Not recommended for further investigation
COM001: Bridge Widening + Channel widening + Main Street trunk drainage	-0.24	11	Not recommended for further investigation



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**APPENDIX A
STAGE DAMAGE CURVES**





A-1 Stage Damage Curves

Residential

The residential damage curves utilised in the study include: Internal Damage Curves, Structural Damage Curves and External Damage Curves.

- Damages in this section generally includes contents of a household that is damaged by flooding within all internal rooms of the household. In total there are 18 different curves developed based on the building classification and the size of the building (small medium and large). An example of this is shown in Figure A - 8-1.

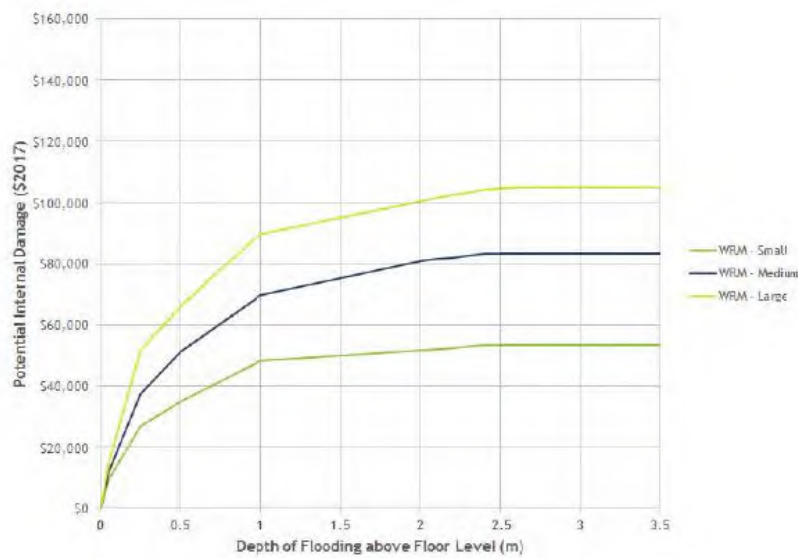


Figure A - 8-1 FDSS Internal Stage Damage Curve

- Damages in this section includes structural components such as rooves, floors and walls. In total there are 18 different curves developed based on the building classification and the size of the building (small medium and large). An example of this is shown in Figure A - 8-2.

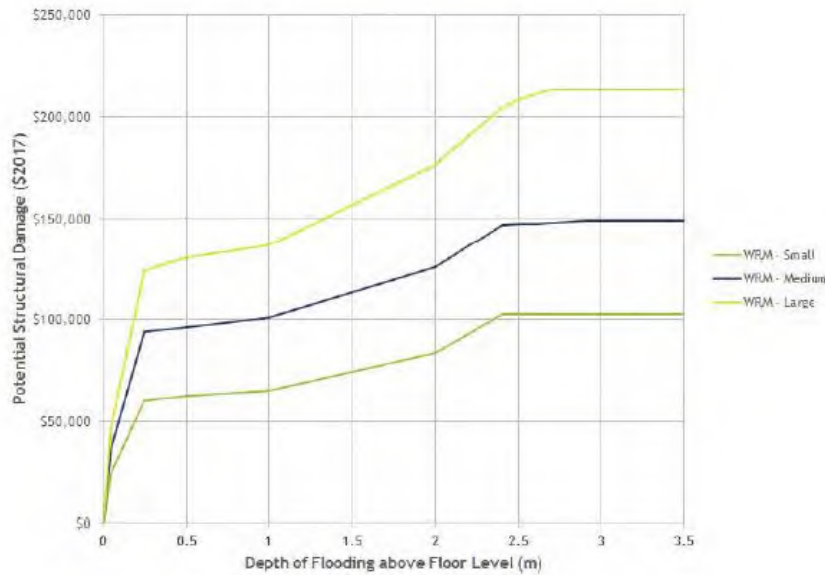


Figure A - 8-2 FDSS Structural Stage Damage Curve

- Damages in this section generally includes external areas of the household such as gardens, fences, sheds, garages, and vehicles etc.). In total there are 18 different curves developed based on the building classification and the size of the building (small medium and large). An example of this is shown below.

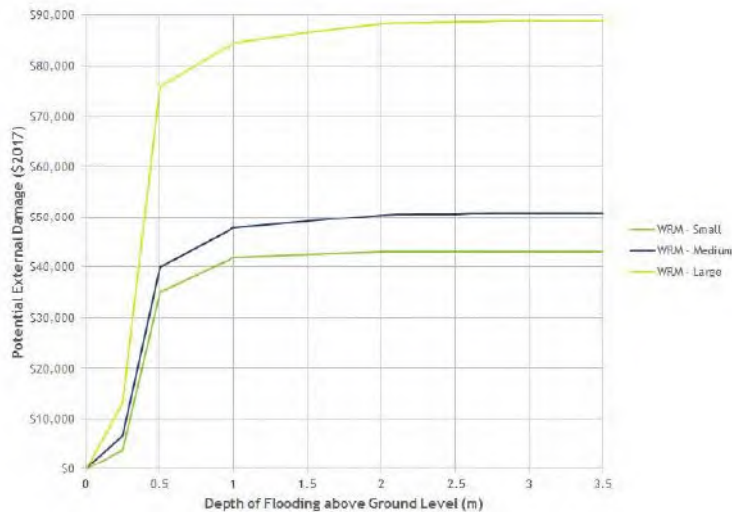


Figure A - 8-3 FDSS External Stage Damage Curve



Commercial

The developed damage curves for commercial premises developed in the BRSFMP were utilised to the extent possible. For the study value classes were not available and advice received by Council is that there is a tendency for tenants to frequently switch shop types due to the broad zoning within Fraser Coast Regional Council planning scheme.

The commercial damages thus utilised the small, medium and large curves (dependant on building square metres) and adopted the value class of 3 (VC 3 curves or medium).

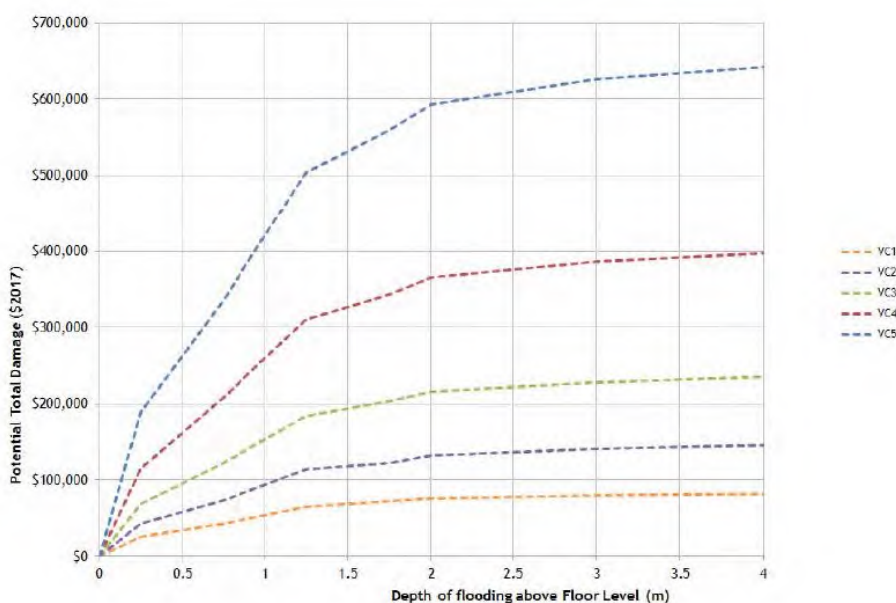


Figure A - 8-4 Example Commercial Damage Curve



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APPENDIX B DESIGN EVENT FLOOD BEHAVIOUR MAPPING

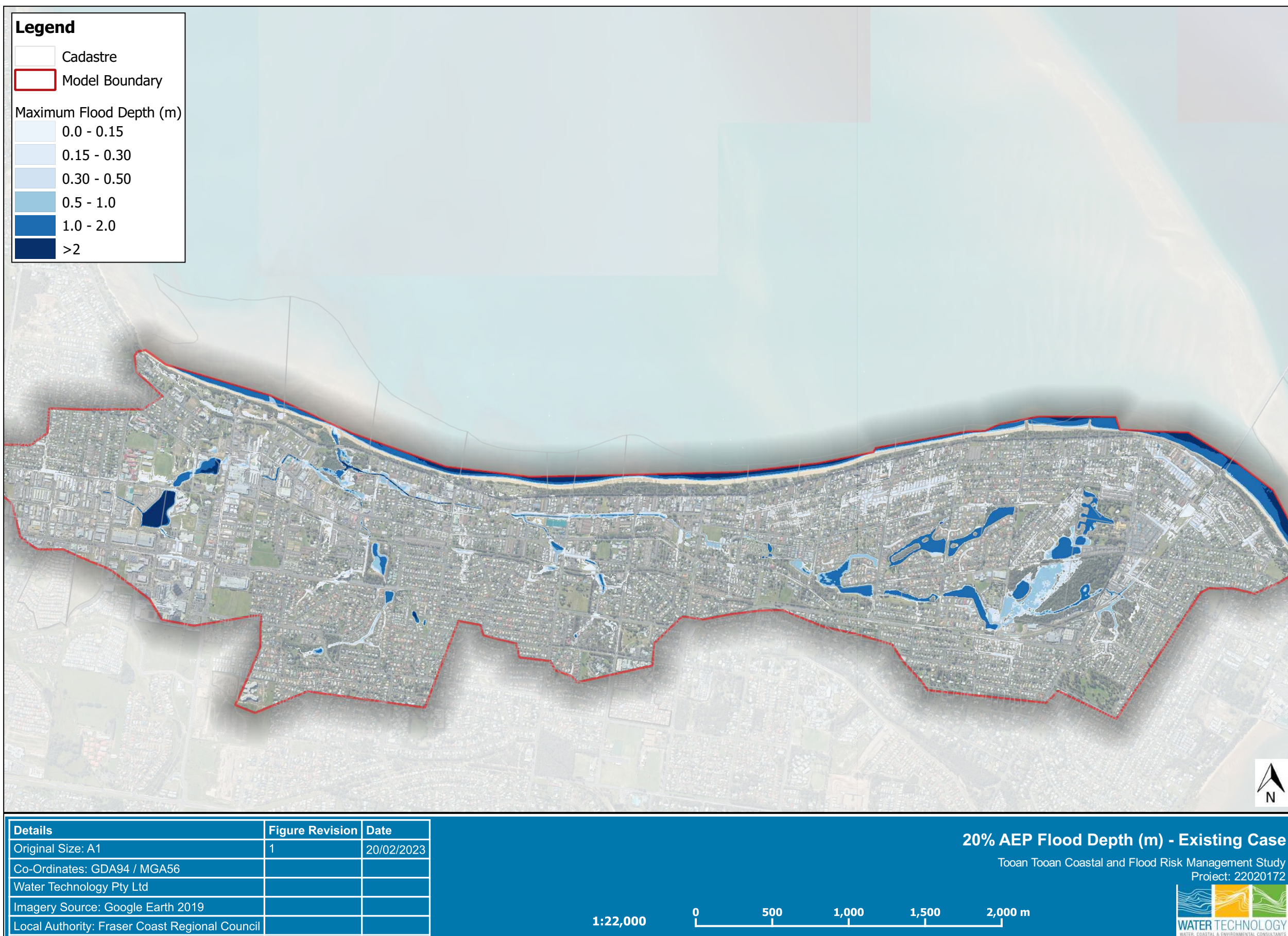




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APPENDIX B DESIGN EVENT FLOOD BEHAVIOUR MAPPING





Details	Figure Revision	Date
Original Size: A1	1	20/02/2023
Co-Ordinates: GDA94 / MGA56		
Water Technology Pty Ltd		
Imagery Source: Google Earth 2019		
Local Authority: Fraser Coast Regional Council		

20% AEP Flood Depth (m) - Existing Case

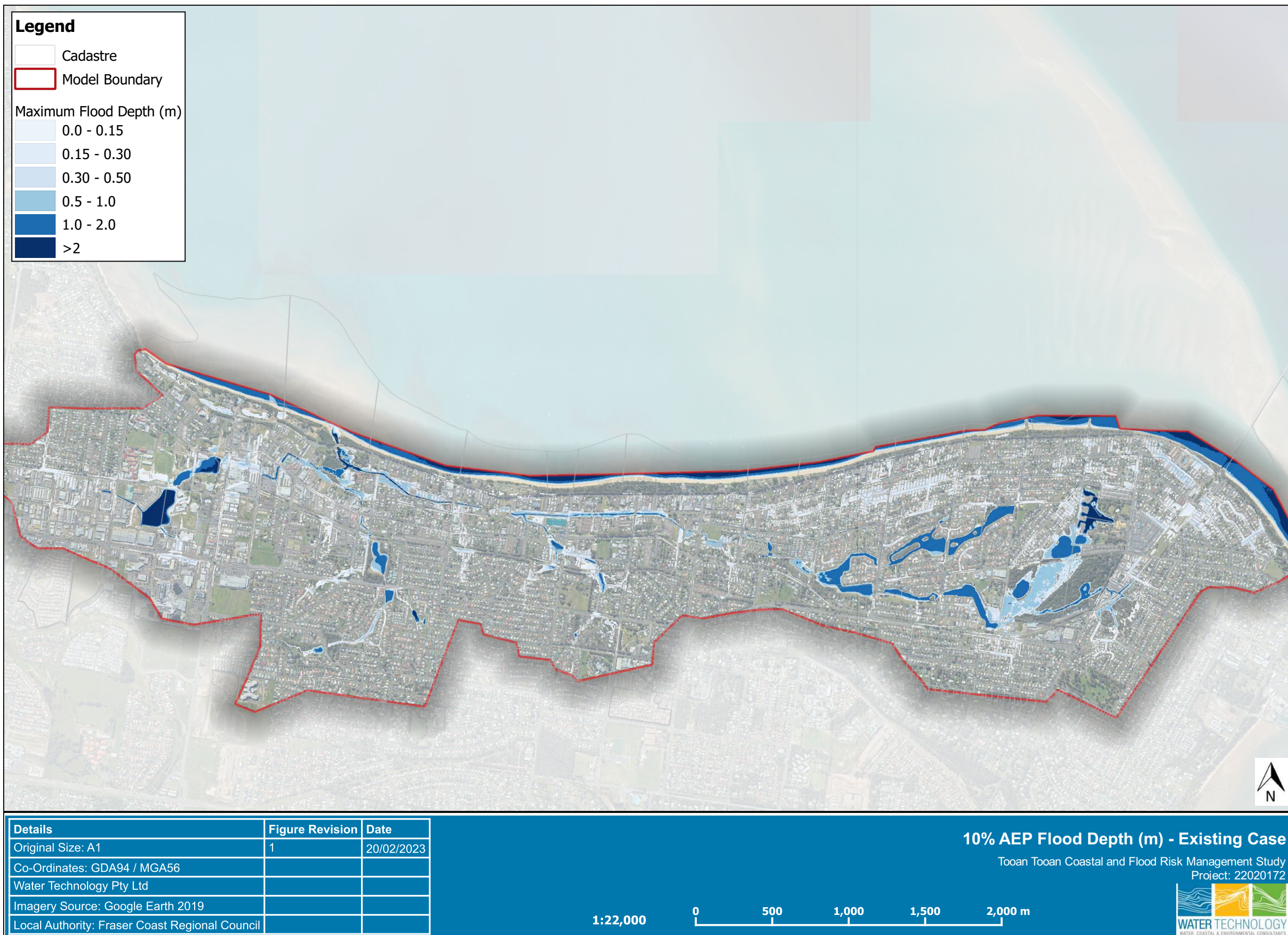
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Project: 22020172



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023-06-19T14:45:10.315



10% AEP Flood Depth (m) - Existing Case

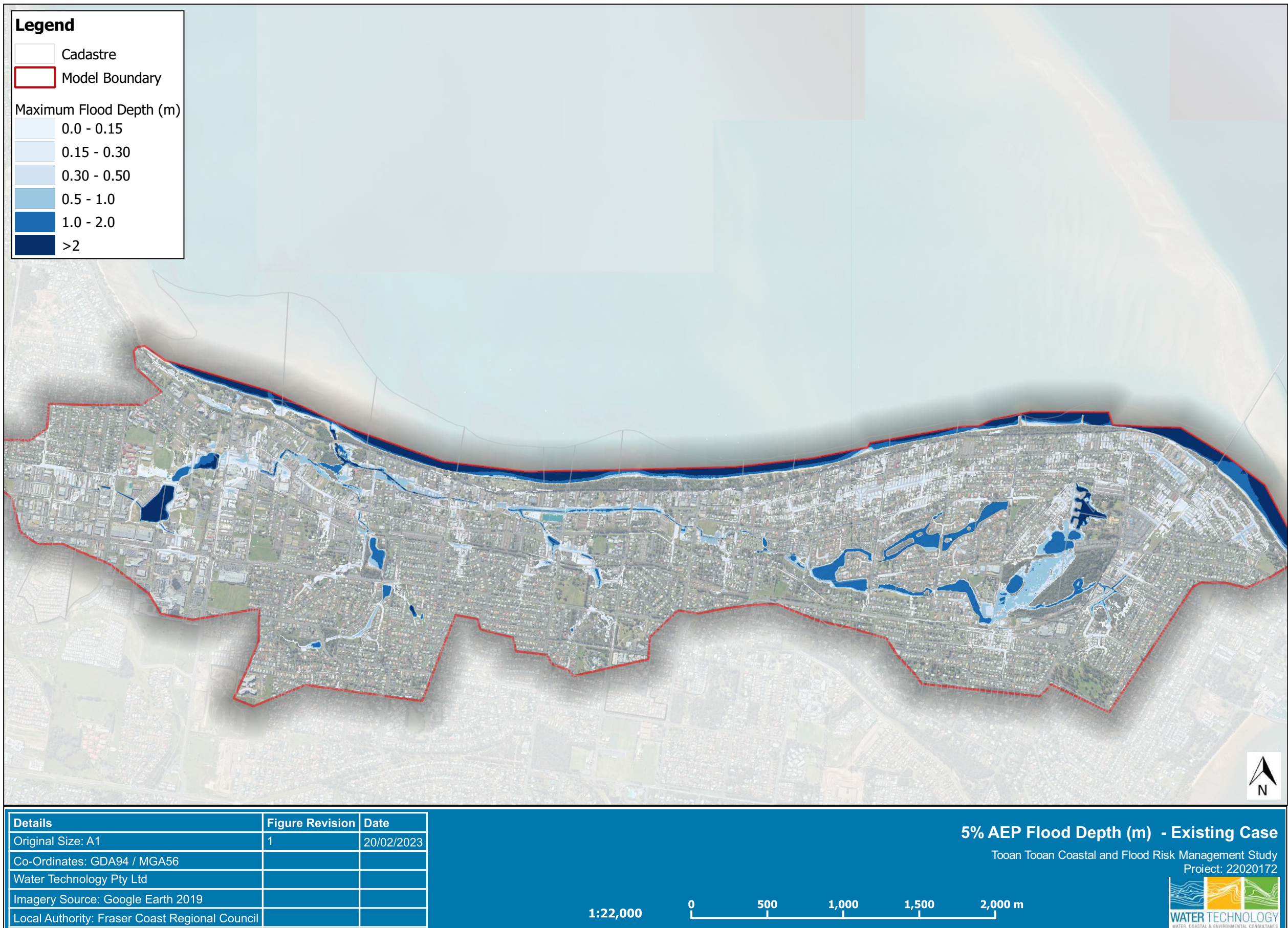
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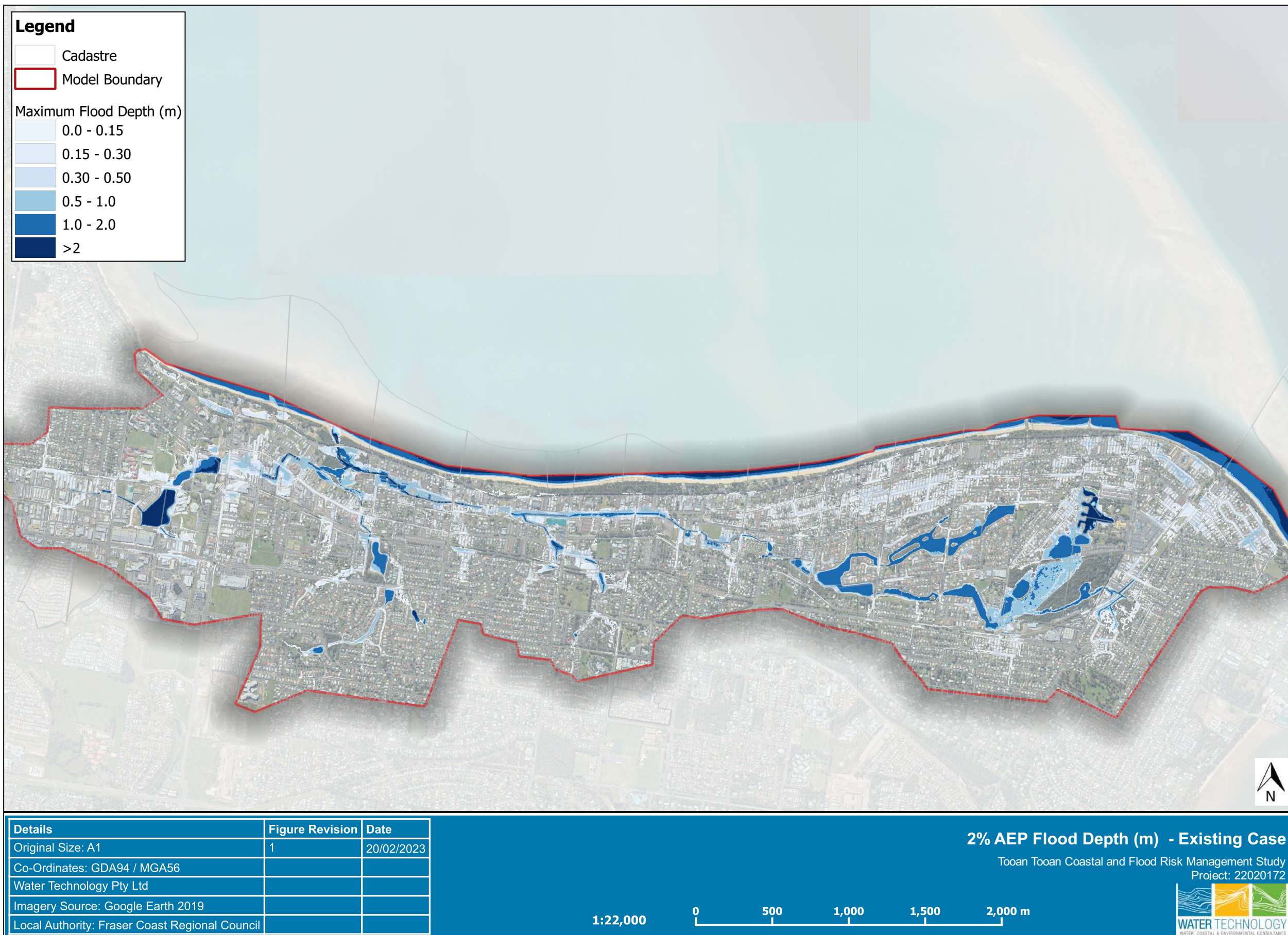
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Co-Ordinates: GDA94 / MGA56		
Water Technology Pty Ltd		
Imagery Source: Google Earth 2019		
Local Authority: Fraser Coast Regional Council		

5% AEP Flood Depth (m) - Existing Case

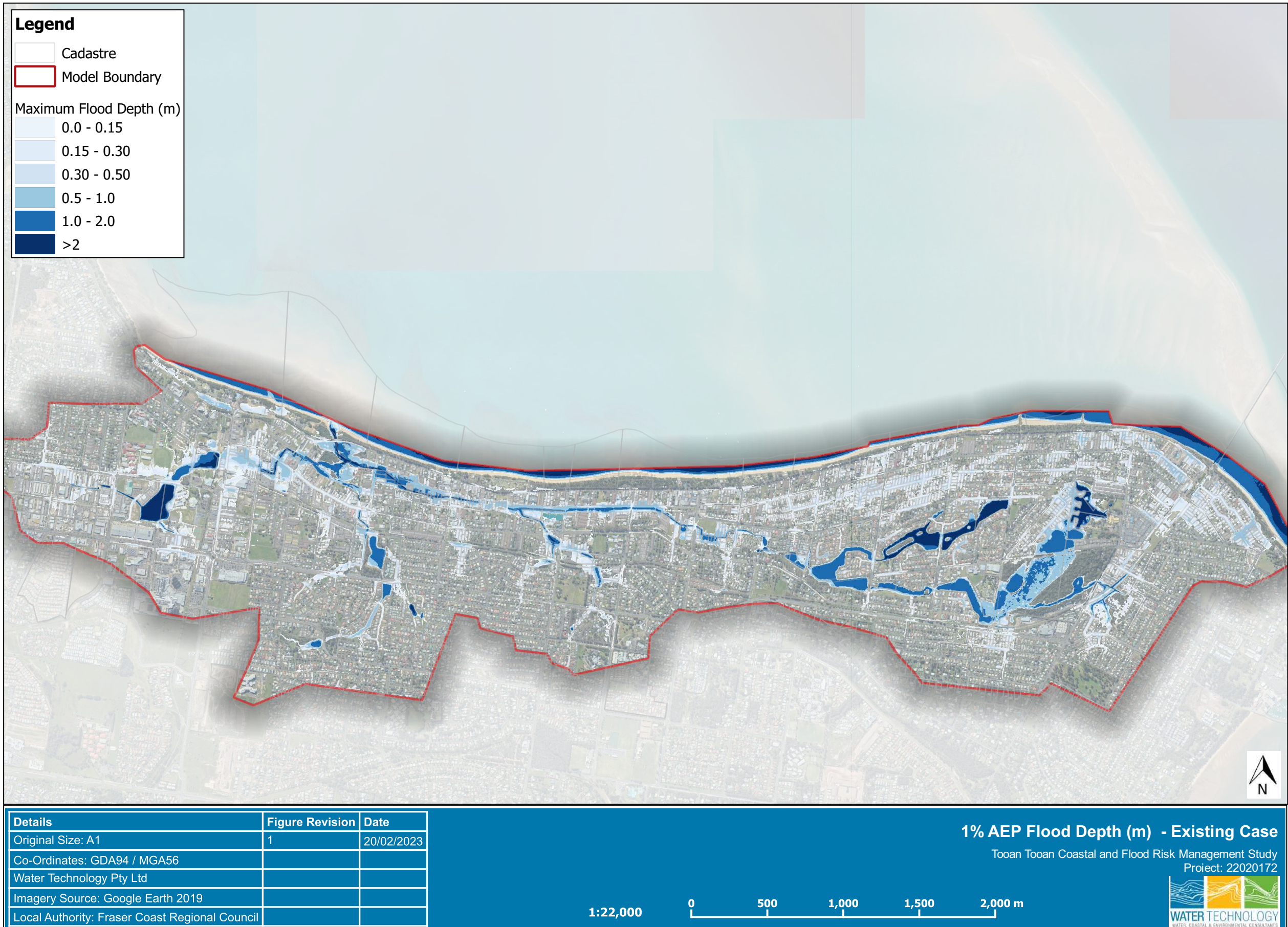
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Project: 22020172



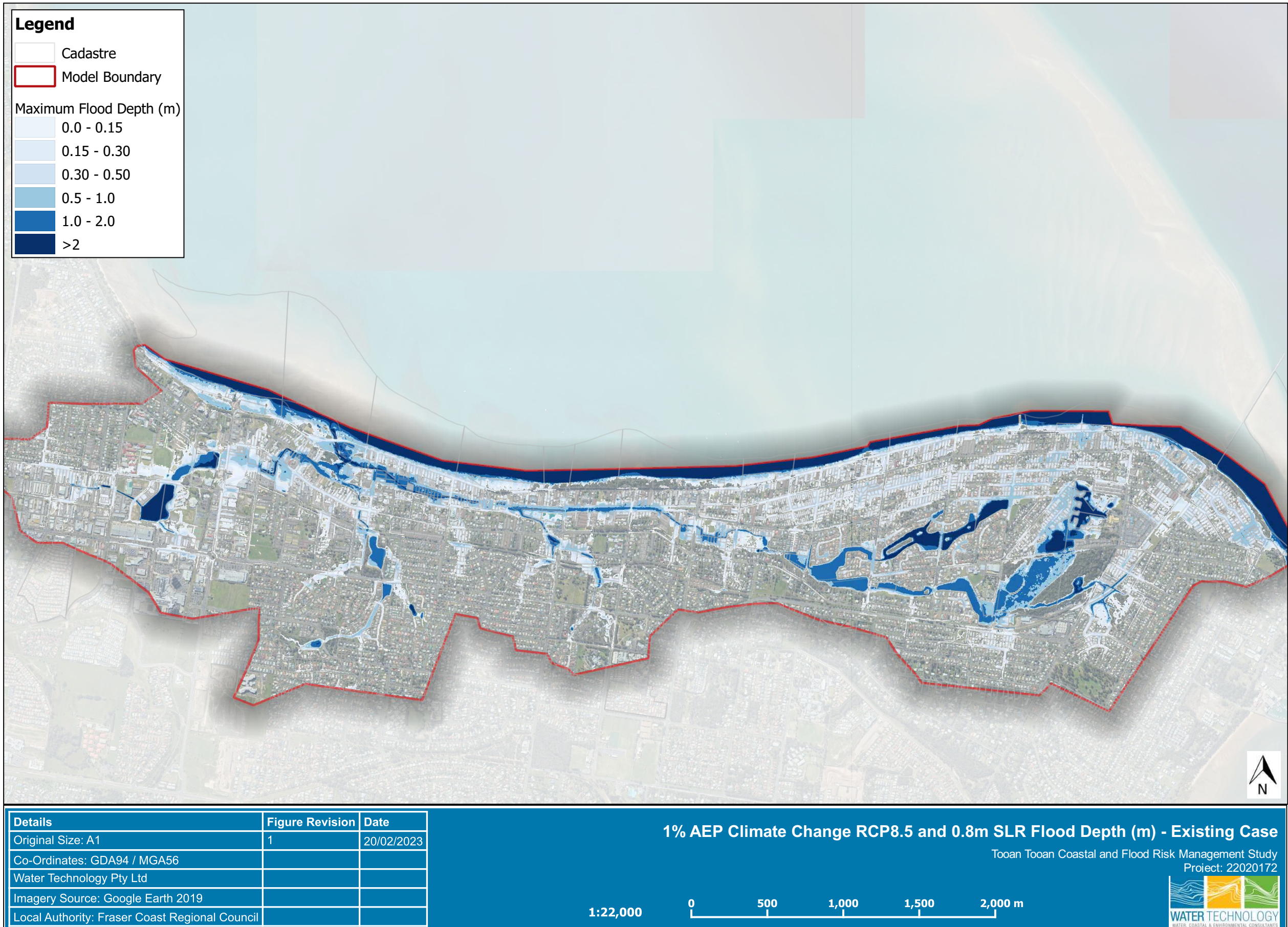
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Water Technology Pty Ltd		
Imagery Source: Google Earth 2019		
Local Authority: Fraser Coast Regional Council		



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1% AEP Climate Change RCP8.5 and 0.8m SLR Flood Depth (m) - Existing Case

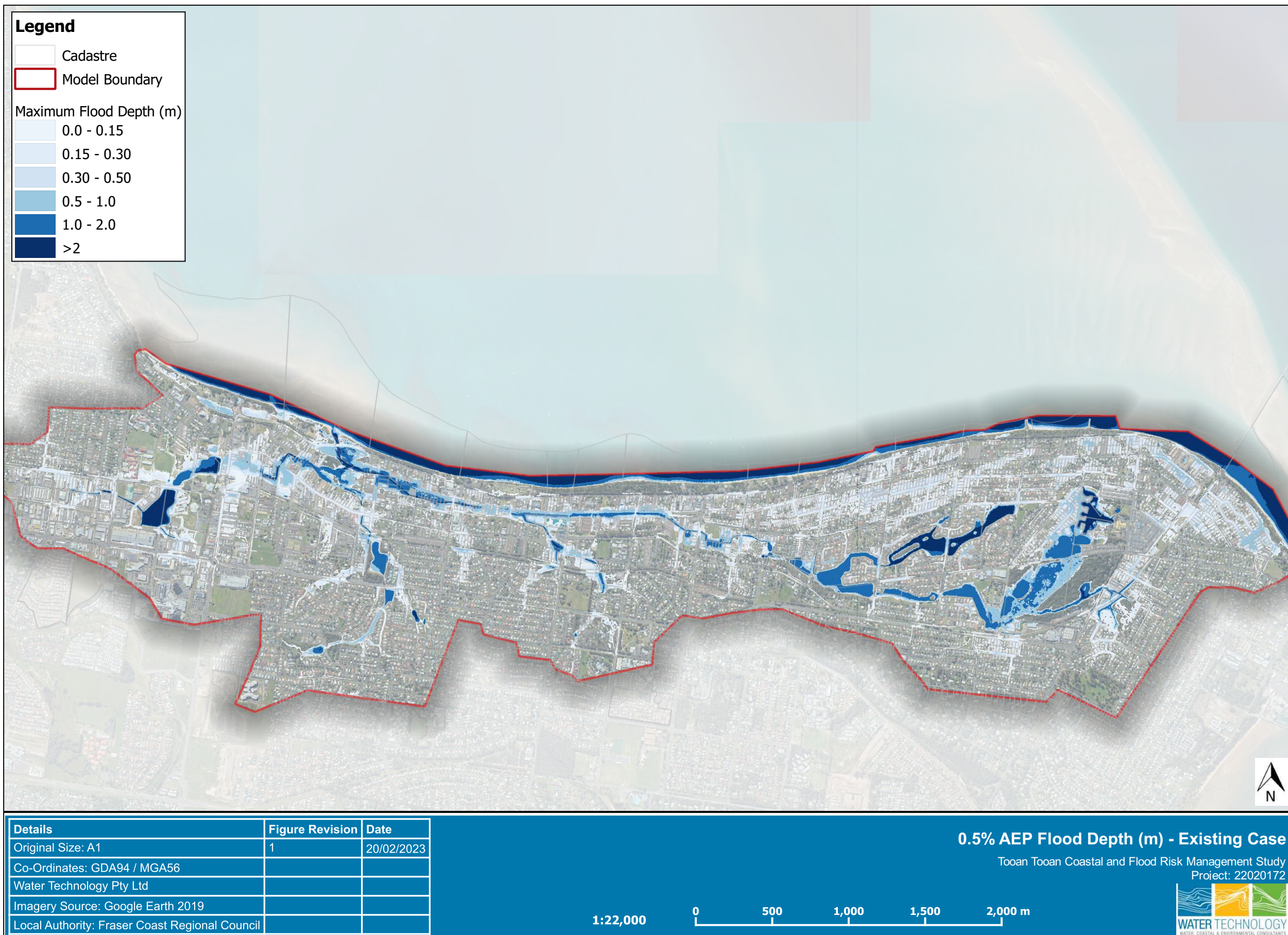
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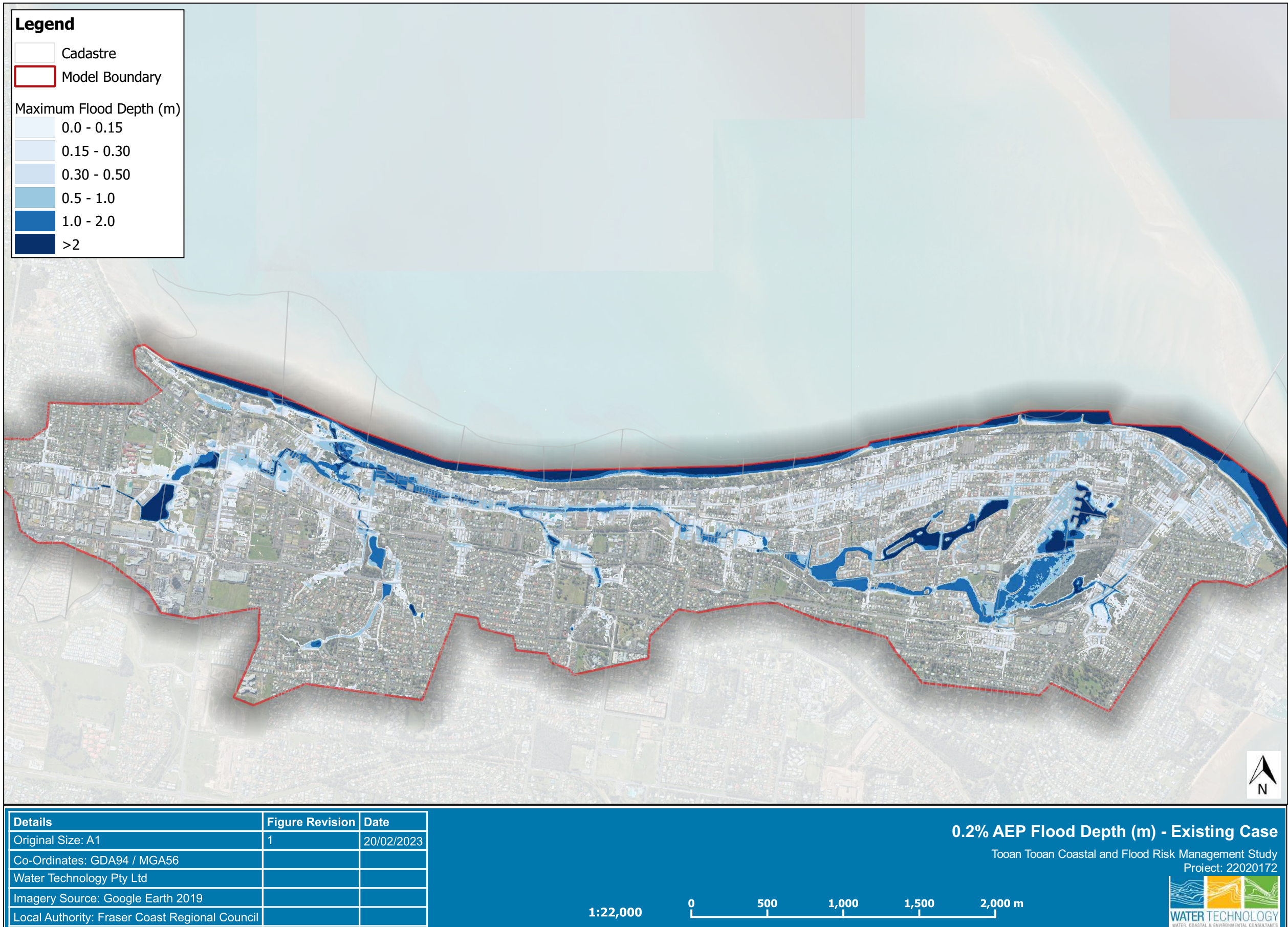
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Co-Ordinates: GDA94 / MGA56		
Water Technology Pty Ltd		
Imagery Source: Google Earth 2019		
Local Authority: Fraser Coast Regional Council		

0.5% AEP Flood Depth (m) - Existing Case

Toon Toon Coastal and Flood Risk Management Study
Project: 22020172



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Details	Figure Revision	Date
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Co-Ordinates: GDA94 / MGA56		
Water Technology Pty Ltd		
Imagery Source: Google Earth 2019		
Local Authority: Fraser Coast Regional Council		

0.2% AEP Flood Depth (m) - Existing Case

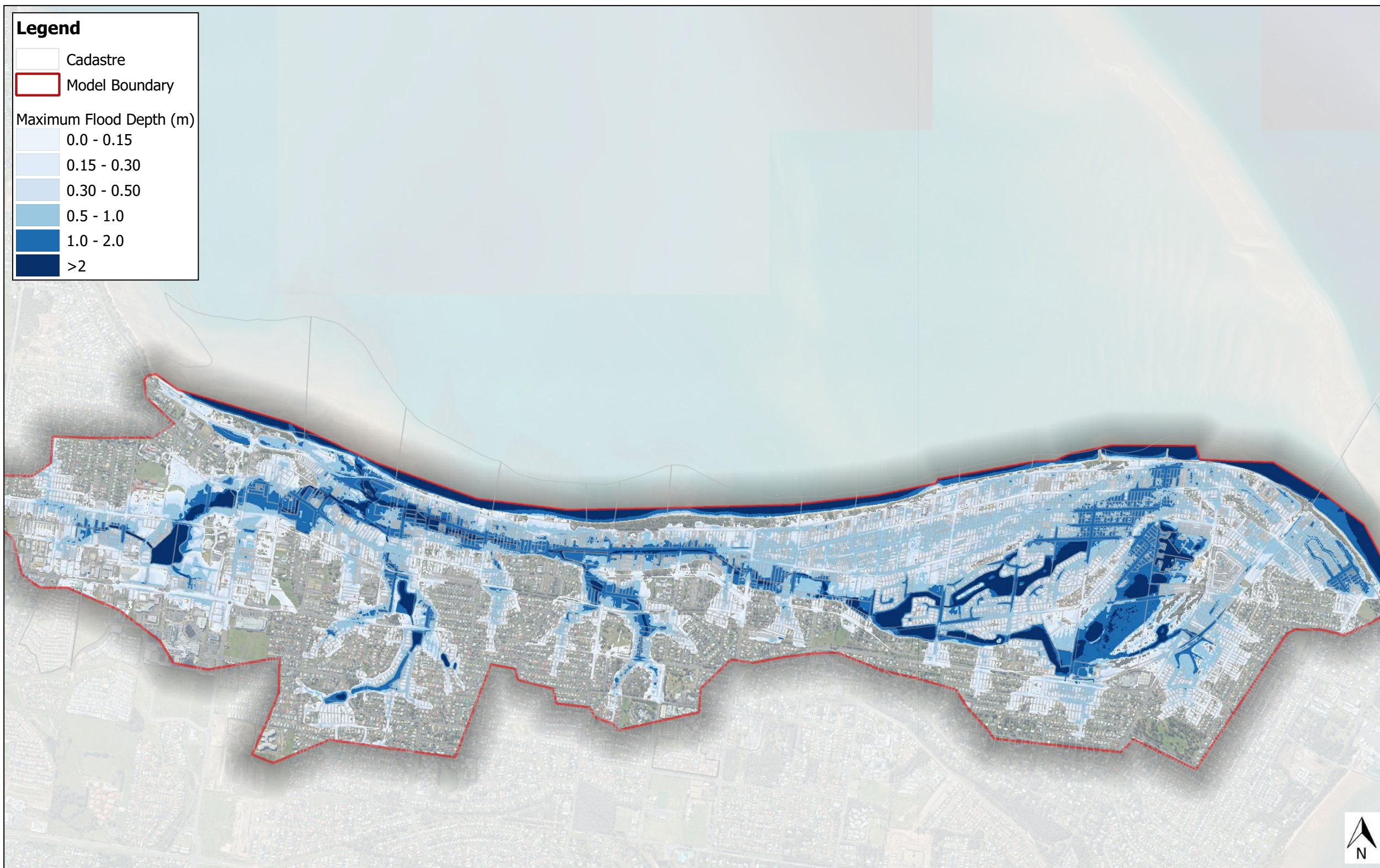
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Project: 22020172



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Legend

- Cadastre
- Model Boundary


Maximum Flood Depth (m)

- 0.0 - 0.15
- 0.15 - 0.30
- 0.30 - 0.50
- 0.5 - 1.0
- 1.0 - 2.0
- >2

Details	Figure Revision	Date
Original Size: A1	1	20/02/2023
Co-Ordinates: GDA94 / MGA56		
Water Technology Pty Ltd		
Imagery Source: Google Earth 2019		
Local Authority: Fraser Coast Regional Council		

PMF Flood Depth (m) - Existing Case
 Toon Toon Coastal and Flood Risk Management Study
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1:22,000 0 500 1,000 1,500 2,000 m



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