
Minutes of an ordinary meeting of the Central Coast Council held in the Council Chamber at the Administration Centre, 19 King Edward Street, Ulverstone on Monday, 22 June 2020 commencing at 6.00pm

Councillors attendance

Cr Jan Bonde (Mayor)	Cr John Beswick
Cr Garry Carpenter (Deputy Mayor)	Cr Amanda Diprose
Cr Cheryl Fuller	Cr Casey Hiscutt
Cr Annette Overton	Cr Tony van Rooyen
Cr Philip Viney	

Councillors apologies

Nil

Employees attendance

General Manager (Ms Sandra Ayton)
Director Infrastructure Services (Mr Paul Breaden)
Executive Services Officer (Mrs Lou Brooke)

Media attendance

Due to COVID-19 restrictions, media representatives were not able to attend the meeting.

Public attendance

Due to COVID-19 restrictions, the public were not able to attend the meeting.

CONFIRMATION OF MINUTES OF THE COUNCIL

170/2020 Confirmation of minutes

The Executive Services Officer reported as follows:

“The minutes of the previous ordinary meeting of the Council held on 18 May 2020 and the special meeting of the Council held on 25 May 2020 have already been circulated. The minutes are required to be confirmed for their accuracy.

The *Local Government (Meeting Procedures) Regulations 2015* provide that in confirming the minutes of a meeting, debate is allowed only in respect of the accuracy of the minutes.”

■ Cr Hiscutt moved and Cr Viney seconded “That the minutes of the previous ordinary meeting of the Council held on 18 May 2020 and the special meeting of the Council held on 25 May 2020 be confirmed.”

Carried unanimously

COUNCIL WORKSHOPS

171/2020 Council workshops

The Executive Services Officer reported as follows:

“The following council workshops have been held since the last ordinary meeting of the Council.

- . 18.05.2020 – Capital Estimates 2020–2021
- . 25.05.2020 – Operational Estimates and Fees and Charges 2020–2021;
Rate Modelling 2020–2021
- . 01.06.2020 – Monthly review; Fairway Park Master Plan
- . 10.06.2020 – Corporate Folder 2020–2021
- . 15.06.2020 – RV Strategy

This information is provided for the purpose of record only.”

■ Cr Overton moved and Cr Beswick seconded “That the Officer’s report be received.”

Carried unanimously

MAYOR'S COMMUNICATIONS

172/2020 Mayor's communications

The Mayor reported as follows:

"I have nothing to report at this time."

173/2020 Mayor's diary

The Mayor reported as follows:

"I have attended the following events and functions on behalf of the Council:

- . COVID-19 Local Government meeting – via video conference
- . Tasmanian Audit Office Meeting – via video conference
- . Fortnightly Radio Segment."

- Cr Diprose moved and Cr Overton seconded "That the Mayor's report be received."

Carried unanimously

174/2020 Declarations of interest

The Mayor reported as follows:

"Councillors are requested to indicate whether they have, or are likely to have, a pecuniary (or conflict of) interest in any item on the agenda."

The Executive Services Officer reported as follows:

"The *Local Government Act 1993* provides that a councillor must not participate at any meeting of a council in any discussion, nor vote on any matter, in respect of which the councillor has an interest or is aware or ought to be aware that a close associate has an interest.

Councillors are invited at this time to declare any interest they have on matters to be discussed at this meeting. If a declaration is impractical at this time, it is to be noted that a councillor must declare any interest in a matter before any discussion on that matter commences.

All interests declared will be recorded in the minutes at the commencement of the matter to which they relate.”

No interests were declared at this time.

COUNCILLOR REPORTS

175/2020 Councillor reports

The Executive Services Officer reported as follows:

“Councillors who have been appointed by the Council to community and other organisations are invited at this time to report on actions or provide information arising out of meetings of those organisations.

Any matters for decision by the Council which might arise out of these reports should be placed on a subsequent agenda and made the subject of a considered resolution.”

Cr Fuller reported on a recent meeting of the Riana Community Centre Committee, Council staff and herself to discuss and review the drawings prepared for the facilities’ proposed improvements. The Committee were grateful for the aspirational approach and will continue to work with Council staff to identify suitable grant funding through State government programs. Further to this, Cr Fuller noted the 2020–2021 budget allocation for the Centres’ refurbishment and commented that Committee members would be grateful of Council support and look forward to seeing the improvements completed.

Cr Hiscutt reported on a recent meeting with the President of the Penguin Surf Lifesaving Club. The Club is progressing with long-term and building plans for an infrastructure upgrade and will seek funding from the Premier's Discretionary Fund. The Club will ask to attend a Councillors Workshop in the near future in relation to the plans.

Cr Hiscutt noted that the Slipstream Circus Board Inc., continue to work on plans for their new building and ask that the Council keep an ‘ear out’ for future funding opportunities.

APPLICATIONS FOR LEAVE OF ABSENCE

176/2020 Leave of absence

The Executive Services Officer reported as follows:

“The *Local Government Act 1993* provides that the office of a councillor becomes vacant if the councillor is absent without leave from three consecutive ordinary meetings of the council.

The Act also provides that applications by councillors for leave of absence may be discussed in a meeting or part of a meeting that is closed to the public.

There are no applications for consideration at this meeting.”

DEPUTATIONS

177/2020 Deputations

The Executive Services Officer reported as follows:

“No requests for deputations to address the meeting or to make statements or deliver reports have been made.”

PETITIONS

178/2020 Petitions – Central Coast Council’s Dog Management Policy – March 2020

The Executive Services Officer reported as follows:

“The following petition has been received:

‘SUBJECT MATTER	Central Coast Council’s Dog Management Policy – March 2020	
STATEMENT OF SUBJECT MATTER AND ACTION REQUESTED	Oppose the closing of Turners Beach to the exercising of dogs from Turners Beach Road Boardwalk to the mouth of the Forth River as proposed in the Central Coast Council’s Dog Management Policy – March 2020.	
SIGNATORIES	Total No. Entries:	33
	Duplicates:	–
	Invalid:	–
TOTAL		33.’

The General Manager reported as follows:

“The petition was received on Tuesday, 26 May 2020 and under the provisions of s.57 of the *Local Government Act 1993*, a petition cannot be tabled at a Council meeting unless it meets specific criteria. In the case of this petition, it did not strictly comply, therefore was unable to be tabled at a Council meeting. However, the petition and supporting documentation have been included and considered as part of the Draft Dog Management Policy review.

The petitioner was notified of the non-compliance and in response to the Council advised that *‘the petition was not intended to be registered as a separate petition but to add to other local objections to the proposed changes to the existing Policy and to indicate the extent of the objections in the Turners Beach area and to offer sensible and workable solutions to the problems’*. A copy of the petition is attached.”

■ Cr van Rooyen moved and Cr Beswick seconded “That the report relating to the petition be noted.”

Carried unanimously

179/2020 Petition – Dog restrictions to Turners Beach current regulations – 2015

The Executive Services Officer reported as follows:

“The following petition has been received:

‘SUBJECT MATTER	Dog restrictions to Turners beach current regulations – 2015.	
STATEMENT OF SUBJECT MATTER AND ACTION REQUESTED	Not to change the current regulations to Turners Beach and Recreation areas – proposed changes date March 16 th 2020.	
SIGNATORIES	Total No. Entries:	352
	Duplicates:	–
	Invalid:	3
TOTAL		349.’

The petition is in compliance with s.57 of the *Local Government Act 1993* and accordingly is able to be tabled. In reviewing the petition, it should be noted that the compliant signatory count is 349.

The General Manager reported as follows:

‘In accordance with s.58 of the *Local Government Act 1993*, the General Manager is to table the petition at the next ordinary meeting of the Council, enabling the Council to receive it.

A report on the outcome of the Draft Dog Management Policy review will be submitted to the 20 July 2020 Ordinary Council meeting. The subject matter and actions requested within this petition, along with other matters raised from community submissions will be considered as part of the draft Policy’s review and will form part of the Council report for the July meeting. A copy of the petition is appended to this report.’

- Cr Diprose moved and Cr Viney seconded “That the petition be received.”

Carried unanimously

COUNCILLORS’ QUESTIONS

180/2020 Councillors’ questions without notice

The Executive Services Officer reported as follows:

“The *Local Government (Meeting Procedures) Regulations 2015* provide as follows:

’29 (1) A councillor at a meeting may ask a question without notice –

(a) of the chairperson; or

(b) through the chairperson, of –

(i) another councillor; or

(ii) the general manager.

(2) In putting a question without notice at a meeting, a councillor must not –

(a) offer an argument or opinion; or

(b) draw any inferences or make any imputations –

except so far as may be necessary to explain the question.

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- (3) The chairperson of a meeting must not permit any debate of a question without notice or its answer.
 - (4) The chairperson, councillor or general manager who is asked a question without notice at a meeting may decline to answer the question.
 - (5) The chairperson of a meeting may refuse to accept a question without notice if it does not relate to the activities of the council.
 - (6) Questions without notice, and any answers to those questions, are not required to be recorded in the minutes of the meeting.
 - (7) The chairperson may require a councillor to put a question without notice in writing.'

If a question gives rise to a proposed matter for discussion and that matter is not listed on the agenda, Councillors are reminded of the following requirements of the Regulations:

- '8 (5) Subject to subregulation (6), a matter may only be discussed at a meeting if it is specifically listed on the agenda of that meeting.
- (6) A council by absolute majority at an ordinary council meeting, ..., may decide to deal with a matter that is not on the agenda if –
 - (a) the general manager has reported the reason it was not possible to include the matter on the agenda; and
 - (b) the general manager has reported that the matter is urgent; and
 - (c) in a case where the matter requires the advice of a qualified person, the general manager has certified under section 65 of the Act that the advice has been obtained and taken into account in providing general advice to the council.'

Councillors who have questions without notice are requested at this time to give an indication of what their questions are about so that the questions can be allocated to their appropriate Departmental Business section of the agenda."

The allocation of topics ensued.

181/2020 Councillors' questions on notice

The Executive Services Officer reported as follows:

“The *Local Government (Meeting Procedures) Regulations 2015* provide as follows:

’30 (1) A councillor, at least 7 days before an ordinary council meeting or a council committee meeting, may give written notice to the general manager of a question in respect of which the councillor seeks an answer at that meeting.

(2) An answer to a question on notice must be in writing.’

It is to be noted that any question on notice and the written answer to the question will be recorded in the minutes of the meeting as provided by the Regulations.

Any questions on notice are to be allocated to their appropriate Departmental Business section of the agenda.

No questions on notice have been received.”

PUBLIC QUESTION TIME

182/2020 Public question time

The Mayor reported as follows:

“Due to the current COVID-19 restrictions and guidelines, this meeting will not be open to public attendance. Members of the public who would like to ask questions to the Council, that would normally have been heard during the Public Question Time section of the meeting agenda, are advised to provide their question on notice to the General Manager by 3.00pm Monday, 22 June 2020.

Any questions received will be read out by the General Manager at the meeting and a response provided following the meeting.”

183/2020 Public questions taken on notice

The Mayor reported as follows:

“One submission for questions on notice has been received for public question time:

Shirley Bloom – West Ulverstone

Question 1 –

“Dogs on leads is an issue and so is dog droppings around people’s yards, even if they don’t own a dog. What will the Council be doing about this?”

Question 2 –

“Can a seat be put up at the Youth Centre, on the river side, approximately halfway along where there is some coverage from concrete boulders, so that elderly people can rest out of the weather?”

Question 3 –

“Can more bins be placed around the beaches at West Ulverstone and other areas but install bins that are more fire retardant.”

Response –

“The General Manager advised that the questions would be taken on notice, and a written response provided.”

The Executive Services Officer reported as follows:

“At the 18 May 2020 Ordinary Council Meeting, David and Joy Watson of Ulverstone asked the following question on notice, which was responded to by the General Manager.

Question 1 –

“Would it be possible to have a blitz on dog walkers, in the form of big colourful notices especially along the walking path between the rowing club and Otto’s Grotto?

Great to see so many people and dogs exercising but what they leave behind is becoming a big problem.

Perhaps some posters in the same form as your posts on Facebook would be ideal.”

Response –

“I refer to your Question on Notice at the Council meeting on 18 May 2020 and can advise that the Council is aware of the community concerns in relation to the amount of ‘dog poo’ being left in public places by their owners.

As you have suggested an education campaign is a good way to start. The Council is undertaking a campaign to remind dog owners to manage their dog’s waste in public areas and is also looking at having staff out and about in our parks and on our walkways to talk to people in a proactive manner. We are hoping that this is all that will be required to help alleviate this problem.

It is disappointing that this has become an issue within the region but it is one that we need to keep on top of.

Thank you for your concerns and ideas on this subject.”

- Cr Viney moved and Cr Beswick seconded “That the question from Mr and Mrs Watson and the response from the General Manager be received and noted.”

Carried unanimously

DEPARTMENTAL BUSINESS

GENERAL MANAGEMENT

184/2020 Councillor Allowances 2020–2021

■ Cr Carpenter (having given notice) moved, Cr Hiscutt seconded, “that in recognition of the hardship faced by the Central Coast Community, that the Central Coast Councillors waive any increase in their Councillor allowance which may apply to the 2020–2021 financial year.”

Cr Carpenter, in support of his motion, submitted as follows:

“The Council will at this meeting introduce a budget with a zero per cent increase in the rates and charges for the year. Costs have been tightened around levels of service provided to the community and this is a way that Councillors can contribute to achieving this budgetary outcome.”

The General Manager reported as follows:

“DISCUSSION

This is a Councillor matter and a report is not required from the General Manager in relation to this motion.

CONCLUSION

The motion on notice from Cr Carpenter is submitted for consideration.”

Motion

Carried

185/2020 Minutes and notes of committees of the Council and other organisations

The General Manager reported as follows:

“The following (non-confidential) minutes and notes of committees of the Council and other organisations on which the Council has representation have been received:

- Cradle Coast Waste Management Group – meeting held 11 March 2020
- Cradle Coast Authority Representatives – meeting held 14 May 2020
- Cradle Coast Waste Management Group – meeting held 27 May 2020

Copies of the minutes and notes have been circulated to all Councillors.”

- Cr Hiscutt moved and Cr Beswick seconded “That the (non-confidential) minutes and notes of committees of the Council be received.”

Carried unanimously

186/2020 Correspondence addressed to the Mayor and Councillors

The General Manager reported as follows:

“A Schedule of Correspondence addressed to the Mayor and Councillors for the period 19 May 2020 to 22 June 2020 and which was addressed to the ‘Mayor and Councillors’ is appended. Reporting of this correspondence is required in accordance with Council policy.

Where a matter requires a Council decision based on a professionally developed report the matter will be referred to the Council. Matters other than those requiring a report will be administered on the same basis as other correspondence received by the Council and managed as part of the day-to-day operations.”

The Executive Services Officer reported as follows:

“A copy of the Schedule has been circulated to all Councillors.”

- Cr Viney moved and Cr Overton seconded “That the Schedule of Correspondence addressed to the Mayor and Councillors (a copy being appended to and forming part of the minutes) be received.”

Carried unanimously

187/2020 Common seal

The General Manager reported as follows:

“A Schedule of Documents for Affixing of the Common Seal for the period 19 May 2020 to 22 June 2020 is submitted for the authority of the Council to be given. Use of the common seal must first be authorised by a resolution of the Council.

The Schedule also includes for information advice of final plans of subdivision sealed in accordance with approved delegation and responsibilities.”

The Executive Services Officer reported as follows:

“A copy of the Schedule has been circulated to all Councillors.”

- Cr van Rooyen moved and Cr Beswick seconded “That the common seal (a copy of the Schedule of Documents for Affixing of the Common Seal being appended to and forming part of the minutes) be affixed subject to compliance with all conditions of approval in respect of each document, and that the advice of final plans of subdivision sealed in accordance with approved delegation and responsibilities be received.”

Carried unanimously

188/2020 Contracts and agreements

The General Manager reported as follows:

“A Schedule of Contracts and Agreements (other than those approved under the common seal) entered into for the period 19 May 2020 to 22 June 2020 is submitted to the Council for information. The information is reported in accordance with approved delegations and responsibilities.”

The Executive Services Officer reported as follows:

“A copy of the Schedule has been circulated to all Councillors.”

- Cr van Rooyen moved and Cr Beswick seconded “That the Schedule of Contracts and Agreements (a copy being appended to and forming part of the minutes) be received.”

Carried unanimously

COMMUNITY SERVICES

189/2020 Statutory determinations

The Director Community Services reported as follows:

“A Schedule of Statutory Determinations made during the month of May 2020 is submitted to the Council for information. The information is reported in accordance with approved delegations and responsibilities.”

The Executive Services Officer reported as follows:

“A copy of the Schedule has been circulated to all Councillors, a suggested resolution is submitted for consideration.”

■ Cr Fuller moved and Cr Beswick seconded “That the Schedule of Statutory Determinations (a copy being appended to and forming part of the minutes) be received.”

Carried unanimously

190/2020 Council acting as a planning authority

The Mayor reported as follows:

“The *Local Government (Meeting Procedures) Regulations 2015* provide that if a council intends to act at a meeting as a planning authority under the *Land Use Planning and Approvals Act 1993*, the chairperson is to advise the meeting accordingly.

The Director Community Services has submitted the following report:

‘If any such actions arise out of Agenda Item 10.8, they are to be dealt with by the Council acting as a planning authority under the *Land Use Planning and Approvals Act 1993*.’”

The Executive Services Officer reported as follows:

“Councillors are reminded that the *Local Government (Meeting Procedures) Regulations 2015* provide that the general manager is to ensure that the reasons for a decision by a council acting as a planning authority are recorded in the minutes.”

■ Cr Hiscutt moved and Cr Overton seconded “That the Mayor’s report be received.”

Carried unanimously

191/2020 Residential (dwelling and outbuilding – shed) – variation to privacy, building envelope and building height standards – 5 Fysh Street, Forth – Application No. DA2020047

The Strategic Projects and Planning Consultant reported as follows:

“The Land Use Planning Group Leader has prepared the following report:

<i>‘DEVELOPMENT APPLICATION NO.:’</i>	DA2020047
<i>PROPOSAL:</i>	Residential (dwelling and outbuilding – shed) – variation to privacy, building envelope and building height standards
<i>APPLICANT:</i>	Lachlan Walsh Design
<i>LOCATION:</i>	5 Fysh Street, Forth
<i>ZONE:</i>	Low Density Residential
<i>PLANNING INSTRUMENT:</i>	<i>Central Coast Interim Planning Scheme 2013</i> (the Planning Scheme) including the Forth Specific Area Plan (Forth SAP)
<i>ADVERTISED:</i>	23 May 2020
<i>REPRESENTATIONS EXPIRY DATE:</i>	9 June 2020
<i>REPRESENTATIONS RECEIVED:</i>	One
<i>42-DAY EXPIRY DATE:</i>	29 June 2020
<i>DECISION DUE:</i>	22 June 2020

PURPOSE

The purpose of this report is to consider an application to construct a double-storey, split-level dwelling and shed on land at 5 Fysh Street, Forth.

Accompanying the report are the following documents:

- . Annexure 1 – location plan;
- . Annexure 2 – application documentation;
- . Annexure 3 – representation;
- . Annexure 4 – Statement of Compliance; and
- . Annexure 5 – photographs.

BACKGROUND

Development description –

Application is made to construct a 338m² split level, “boomerang” shaped dwelling and 94.5m² shed on vacant residential land at 5 Fysh Street, Forth.

The dwelling would have a maximum height of 9.5m above natural ground level and would be constructed using a mix of materials, including timber and

“Colorbond” cladding over a timber frame and brick veneer. The development would comprise the following:

- (i) a dwelling with an upper level accommodating the primary living areas, with three bedrooms sharing a common bathroom, a master bedroom with ensuite and an open plan living/kitchen/dining area that would open onto a north and north-eastern facing deck;
- (ii) a lower level that would accommodate a fifth bedroom, a two car internal garage, rumpus room with kitchenette, laundry and a second bathroom. The lower level would also have an east facing deck area accessed via the rumpus room; and
- (iii) a 94.5m² shed that would be located towards the rear of the allotment. Works would require a cut to a depth of 1.5m with supporting retaining walls setback a minimum of 1.9m from the northern side boundary.

Site description and surrounding area –

The development site is an internal 2,241m² residential allotment that is accessed via a 59.8m long access strip. The allotment has a 7.28m wide frontage to Fysh Street.

The land has a considerable elevation, with scenic views over the Forth village and outwards towards the rural hinterland. The slope of the land rises across the lot from the south-eastern corner to the north-western corner, rising by approximately 25m from the Fysh Street frontage to the western rear boundary.

The site is subject to the Forth Specific Area Plan, where the minimum lot size, if land is subject to subdivision, is to be not less than 2,000m².

The land is cleared of native vegetation and is connected to reticulated sewer, water and stormwater systems.

Surrounding land to the north, east, south and west is also zoned Low Density Residential and subject to the Forth Specific Area Plan. Adjoining lots accommodate single and double-storey dwellings with associated outbuildings.

History –

No history relevant to this application.

DISCUSSION

The following table is an assessment of the relevant Scheme provisions

12.0 Low Density Residential Zone

CLAUSE	COMMENT
12.3 Use Standards	
12.3.1 Discretionary Permit Use	
12.3.1–(P1) Discretionary permit use must:	Not applicable.
(a) be consistent with local area objectives;	Residential use is Permitted.
(b) be consistent with any applicable desired future character statement; and	
(c) minimise likelihood for adverse impact on amenity for use on adjacent land in the zone.	
12.3.2 Impact of Use	
12.3.2–(A1) Permitted non–residential use must adjoin at least one residential use on the same street frontage.	Not applicable. Use is Residential.

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12.3.2–(A2 Permitted non–residential use must not generate more than 40 average daily vehicle movements.	Not applicable. Use is Residential.
12.3.2–(A3) Other than for emergency services, residential, and visitor accommodation, hours of operation must be between 6.00am and 9.00pm.	Not applicable. Use is Residential.
12.4 Development Standards	
12.4.1 Suitability of a site or lot for use or development	
<p>12.4.1–(A1) A site or each lot on a plan of subdivision must:</p> <p>(a) have an area of:</p> <p style="padding-left: 40px;">(i) not less than 500m² excluding any access strip; or</p> <p style="padding-left: 40px;">(ii) if in a locality shown on Table A1 to this clause, not less than the site area shown for that locality; and</p> <p>(b) contain a building area of not less than 10.0m x 15.0m:</p>	<p>(a)(i) Compliant. Site area is 2,241m². Development area comprises 1,889m², excluding the access strip.</p> <p>(a)(ii) Not applicable. Satisfied by (a)(i).</p> <p>(b)(i) Compliant. The development would be located 110m from the site's frontage, 2m from the southern side boundary (dwelling's lower floor) and 1.95m from the northern side boundary (shed retaining wall).</p> <p>(b)(ii) Not applicable. No applicable zone boundary.</p> <p>(b)(iii) Not applicable. No easements on the land.</p>

<ul style="list-style-type: none"> (i) clear of any applicable setback from a frontage, side, or rear boundary; (ii) clear of any applicable setback from a zone boundary; (iii) clear of any registered easement; (iv) clear of any registered right-of-way benefiting other land; (v) clear of any restriction imposed by a utility; (vi) not including an access strip; (vii) accessible from a frontage, or access strip; and (viii) if a new residential lot with a long axis within the range 30 degrees east of north and 20 degrees west of north. 	<ul style="list-style-type: none"> (b)(iv) Not applicable. No right of way. (b)(v) Not applicable. No utility on the land. (b)(vi) Compliant. Development would be clear of access strip. (b)(vii) Compliant. Site is able to be accessed from Fysh Street. (b)(viii) Not applicable. Not a new lot.
<p>12.4.1–(A2) A site or each lot on a subdivision plan must have a separate access from a road:</p> <p>(a) across a frontage over which no other land has a right</p>	<ul style="list-style-type: none"> (a) Compliant. Existing dedicated access off Fysh Street. (b) Compliant. Internal lot with dedicated access strip off Fysh Street.

<p>of access; and</p> <p>(b) if an internal lot, by an access strip connecting to a frontage over land not required as the means of access to any other land; or</p> <p>(c) by a right of way connecting to a road</p> <p>(i) over land not required as the means of access to any other land; and</p> <p>(ii) not required to give the lot of which it is a part the minimum properties of a lot in accordance with the acceptable solution in any applicable standard; and</p> <p>(d) with a width of frontage and any access strip or right-of-way of not less than:</p> <p>(i) 3.6m for a single dwelling development; or</p> <p>(ii) 6.0m for multiple dwelling development or development for a non-residential use; and</p> <p>(e) the relevant road authority in accordance with the <i>Local Government (Highways) Act 1982</i> or the <i>Roads</i></p>	<p>(c)(i) Not applicable. Satisfied by (b).</p> <p>(c)(ii) Not applicable. Satisfied by (b).</p> <p>(d)(i) Compliant. Frontage to Fysh Street is 7.28m wide.</p> <p>(d)(ii) Not applicable. Not multiple dwelling development.</p> <p>(e) Compliant. Statement of Compliance to be issued by the Council acting in its capacity as the Road Authority.</p>
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<p><i>and Jetties Act 1935</i> must have advised it is satisfied adequate arrangements can be made to provide vehicular access between the carriageway of a road and the frontage, access strip or right-of-way to the site or each lot on a proposed subdivision plan.</p>	
<p>12.4.1–(A3) A site or each lot on a plan of subdivision must be capable of connecting to a water supply:</p> <p>(a) provided in accordance with the <i>Water and Sewerage Industry Act 2008</i>; or</p> <p>(b) from a rechargeable drinking water system ^{R4} with a storage capacity of not less than 10,000 litres if:</p> <p>(i) there is not a reticulated water supply; and</p> <p>(ii) development is for:</p> <p>a. a single dwelling; or</p> <p>b. a use with an equivalent population of not more than 10 people per day.</p>	<p>(a) Compliant. The site is connected to a reticulated water system.</p> <p>(b) Not applicable. Satisfied by (a).</p>
<p>12.4.1–(A4) A site or each lot on a plan of subdivision must be capable of draining and disposing of sewage and liquid trade waste:</p>	<p>(a) Compliant. The site is connected to a reticulated sewage system.</p> <p>(b) Not applicable. Satisfied by (a).</p>

<p>(a) to a sewerage system provided in accordance with the <i>Water and Sewerage Industry Act 2008</i>; or</p> <p>(b) by on-site disposal if:</p> <ul style="list-style-type: none"> (i) sewage or liquid trade waste cannot be drained to a reticulated sewer system; and (ii) the development: <ul style="list-style-type: none"> a. is for a single dwelling; or b. provides for an equivalent population of not more than 10 people per day; or c. creates a total sewage and waste water flow of not more than 1,000 litres per day; and (iii) the site has capacity for on-site disposal of domestic waste water in accordance with AS/NZS1547:2012 On-site domestic-wastewater management, clear of any defined building area or access strip. 	
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<p>12.4.1 –(A5) A site or each lot on a plan of subdivision must be capable of draining and disposing of stormwater:</p> <p>(a) to a stormwater system provided in accordance with the <i>Urban Drainage Act 2013</i>; or</p> <p>(b) if stormwater cannot be drained to a stormwater system:</p> <p>(i) for discharge to a natural drainage line, water body, or watercourse; or</p> <p>(ii) for disposal within the site if:</p> <p>a. the site has an area of not less than 5,000m²;</p> <p>b. the disposal area is not within any defined building area;</p> <p>c. the disposal area is not within any area required for the disposal of sewage;</p> <p>d. the disposal area is not within any access strip; and</p> <p>e. not more than 50% of the site is impervious surface; and</p>	<p>(a) Compliant. The site is connected to a reticulated stormwater system.</p> <p>(b) Not applicable. Satisfied by (a).</p>
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(iii) the development is for a single dwelling.	
12.4.2 Dwelling density	
<p>12.4.2-(A1) The site area per dwelling must:</p> <p>(a) be not less than 500m² if the site has:</p> <p>(i) connection to a reticulated water supply;</p> <p>(ii) connection to a reticulated sewer system; and</p> <p>(iii) connection to a stormwater system; or</p> <p>(b) if the site is in a locality shown on Table 1 to this clause, not less than the site area for that locality.</p>	<p>Site area is 2,241 m² and would accommodate a single dwelling.</p> <p>(a)(i) Compliant. Development would connect to a reticulated water supply.</p> <p>(a)(ii) Compliant. Development would connect to a reticulated sewer system.</p> <p>(a)(iii) Compliant. Development would connect to an approved stormwater system.</p> <p>(b) Not applicable. Locality not shown in Table to this Clause.</p>
12.4.3 Location and configuration of development	
<p>12.4.3-(A1) The wall of a building must be set back from a frontage:</p> <p>(a) not less than 4.5m from a primary frontage; and</p> <p>(b) not less than 3.0m from any secondary frontage; or</p>	<p>(a) Compliant The proposed dwelling would be located within 110m of the primary frontage.</p> <p>(b) Not applicable. No secondary frontage.</p> <p>(c) Not applicable. Satisfied by (a).</p> <p>(d) Not applicable. Satisfied by (a).</p>

<p>(c) not less than and not more than the setbacks for any existing building on each of the immediate adjoining sites;</p> <p>(d) not less than for any building retained on the site;</p> <p>(e) in accordance with any building area shown on a sealed plan; or</p> <p>(f) if the site abuts a road shown in the Table to this Clause, the setback specified for that road.</p>	<p>(e) Not applicable. No building area on a sealed plan.</p> <p>(f) Not applicable. Site does not abut the Bass Highway.</p>
<p>12.4.3–(A2) All buildings must be contained within a building envelope determined by:</p> <p>(a) the applicable frontage setback;</p> <p>(b) if the site is in a locality shown on Table A2, not less than the setback distance specific from the feature specified;</p> <p>(c) projecting a line at an angle of 45 degrees from the horizontal at a height of 3.0m above natural ground level at each side boundary and at a distance of 4.0m from the rear boundary to a building height of not</p>	<p>(a) Compliant. The proposed dwelling would be setback 110m from the site's frontage to Fysh Street.</p> <p>(b) Not applicable. No Table to this Clause.</p> <p>(c)(i) Non-compliant. Due to the varied height of the building over sloped land, the dwelling would project outside the required building envelope on the south-eastern side.</p> <p>Refer to the "Issues" section of this report.</p> <p>(c)(ii)a. Not applicable. Development is not less than 1.5m from a side boundary.</p>

<p>more than 8.5m above natural ground level if walls are set back:</p> <ul style="list-style-type: none"> (i) not less than 1.5m from each side boundary; or (ii) less than 1.5m from a side boundary if wall height is not more than 3.0m; and: <ul style="list-style-type: none"> a. built against an existing wall of an adjoining building; or b. the wall or walls: <ul style="list-style-type: none"> i. have the lesser of a total length of 9.0m or one-third of the boundary with the adjoining land; ii. there is no door or window in the wall of the building; and iii. overshadowing does not result in: <ul style="list-style-type: none"> a. less than two hours of continuous sunlight to a 	<ul style="list-style-type: none"> (c)(ii)b. Not applicable. Development is not less than 1.5m from a side boundary. (d) Not applicable No building envelope on a sealed plan.
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<p>required minimum private open space area in an adjacent dwelling between 9.00am and 3.00pm on 21 June; or</p> <p>b. a further reduction in continuous sunlight to a required minimum private open space area in an adjacent dwelling if already less than two hours between 9.00am and 3.00pm on 21 June; or</p> <p>(d) in accordance with any building envelope shown on a sealed plan.</p>	
<p>12.4.3–(A3) Site coverage must:</p> <p>(a) not be more than 50%; or</p> <p>(b) if the site is in a locality shown in the Table to this Clause, not more than the site coverage for that locality; and</p>	<p>(a) Compliant. Site coverage would be less than 30%.</p> <p>(b) Not applicable. Satisfies by (a) and no Table to this Clause.</p> <p>(c) Compliant. Development would be clear of reticulated systems.</p> <p>(d) Not applicable. No building area on a sealed plan.</p>

<p>(c) not include any part of a site required for the disposal of sewage or stormwater; or</p> <p>(d) not be more than any building area shown on a sealed plan.</p>	
<p>12.4.3–(A4) A garage, carport, or an external car parking area and any area for the display, handling, or storage of goods, materials, or waste must be located behind the primary frontage of a building.</p>	<p>Compliant.</p> <p>Internal garage and shed would be behind the primary frontage of the dwelling.</p>
<p>12.4.3–(A5) Total width of openings in the frontage elevation of a garage or carport (whether freestanding, or part of any other building) must be the lesser of:</p> <p>(a) 6.0m; or</p> <p>(b) half the width of the frontage.</p>	<p>(a) Compliant. Garage opening would face the northern side boundary and would have opening width of 6m.</p> <p>(b) Not applicable. Satisfied by (a).</p>
<p>12.4.4 Visual and acoustic privacy for residential development</p>	
<p>12.4.4–(A1) A door or window to a habitable room, or any part of a balcony, deck, roof garden, parking space, or carport of a building must:</p>	<p>(a)(i) Not applicable. No other dwelling on the site.</p> <p>(a)(ii) Compliant. Upper level development would be setback 4.1 m from the nearest side boundary.</p>

<p>(a) if the finished floor level is more than 1.0m above natural ground level:</p> <ul style="list-style-type: none"> (i) be not less than 6.0m from any door, window, balcony, deck, or roof garden in a dwelling on the same site; (ii) be not less than 3.0m from a side boundary; (iii) be not less than 4.0m from a rear boundary; (iv) if an internal lot, be not less than 4.5m from the boundary abutting a rear boundary of a lot of an adjacent frontage site; or <p>(b) if less than the setbacks in clause A1(a):</p> <ul style="list-style-type: none"> (i) be off-set by not less than 1.5m from the edge of any door or window in another dwelling; (ii) have a window sill height of not less than 1.8m above finished floor level; (iii) have fixed and durable glazing or screening with a uniform transparency of not more than 25% in that part of a door or window less than 1.7m above finished floor level; or 	<p>Compliant. Lower level window Nos. W02, W03 and W04 (refer to Plans in Annexure 2) would be greater than 1m above natural ground level and would be setback 2m from the southern side boundary, however the development satisfies standard (b)(i) below.</p> <p>Non-compliant. The lower level deck would be greater than 1m above natural ground level and would be setback 2m from the southern side boundary.</p> <p>Refer to the "Issues" section of this report.</p> <p>(a)(iii) Compliant. Upper level of dwelling would be setback 23m from rear boundary.</p> <p>(a)(iv) Compliant. Development on the internal allotment would be setback 30m from the boundary abutting a rear boundary of a lot of an adjacent frontage site (3 Fysh Street).</p> <p>(b)(i) Compliant. Window Nos. W02, W03 and W04 (refer to Plans in Annexure 2) would be offset by several metres from the edge of a door or window of an adjoining dwelling.</p> <p>(b)(ii) Not applicable. Satisfied by (b)(i).</p> <p>(b)(iii) Not applicable. Satisfied by (b)(i).</p>
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<p>(iv) have a fixed and durable external screen other than vegetation of not less than 1.8m height above the finished floor level and with a uniform transparency of not more than 25% located for the full width of the door, window, balcony, deck, roof garden, parking space, or carport.</p>	<p>(b)(iv) Non-compliant. No screening to lower deck proposed.</p> <p>Refer to the "Issues" section of this report</p>
<p>12.4.4-(A2) An access strip, or shared driveway, including any pedestrian pathway and parking area must be separated by a distance of not less than 1.5m horizontally and 1.5m vertically from the door or window to a dwelling, or any balcony, deck, or roof garden in a dwelling.</p>	<p>Compliant.</p> <p>Access strip would be greater than 7m from the adjoining dwelling at 3 Fysh Street.</p>
<p>12.4.5 Private open space for residential use</p>	
<p>12.4.5-(A1) Each dwelling must provide private open space:</p> <p>(a) if a dwelling with a floor level of not more than 2.5m above finished ground level, a ground level area:</p> <p>(i) located adjoining the rear or side of the dwelling;</p> <p>(ii) accessible from the dwelling;</p>	<p>(a)(i) Compliant. Lower level of the dwelling would have ground level private open space areas located to the east, north and west of the dwelling.</p> <p>(a)(ii) Compliant. Lower level of the dwelling would have ground level private open space areas and a deck accessible from the dwelling.</p> <p>(a)(iii) Compliant. Lower level private open space areas would be greater than 25m².</p>

<p>(iii) of not less than 25.0m²;</p> <p>(iv) with a minimum dimension of 4.0m;</p> <p>(v) on a single level; and</p> <p>(vi) with a gradient of not more than 1 in 10; and</p> <p>(b) if a dwelling with a floor level of more than 2.5m above finished ground level, as an alternative to a ground level area, a private balcony, deck, terrace, or roof garden:</p> <p>(i) of not less than 25.0m²;</p> <p>(ii) with a minimum dimension of 4.0m; and</p> <p>(iii) accessible from the dwelling.</p>	<p>(a)(iv) Compliant. Lower level private open space areas have minimum dimensions of 30m.</p> <p>(a)(v) Compliant. Lower level has deck area of private open space.</p> <p>(a)(vi) Compliant. Deck would be flat and portions of the northern ground level area would be landscaped to have a gradient of not more than 1 in 10.</p> <p>(b)(i) Compliant. Upper level of the dwelling would have a deck with floor area greater than 43m².</p> <p>(b)(ii) Compliant. Upper level of the dwelling would have a deck with a minimum dimension of 4.4m.</p> <p>(b)(iii) Compliant. Upper level deck would be accessible from the dwelling's habitable rooms.</p>
<p>12.4.5–(A2) The required minimum private open space area must be capable of receiving at least three hours of sunlight between 9.00am and 3.00pm on 21 June.</p>	<p>Compliant.</p> <p>Private open space areas would receive at least three hours of sunlight between 9.00am and 3.00pm on 21 June.</p>
<p>12.4.5–(A3) Unless there is a ground level private open space area directly accessible at grade to a shared driveway or pedestrian pathway, each dwelling in a multiple dwelling</p>	<p>Not applicable.</p> <p>No multiple dwellings proposed.</p>

<p>development must have access to a waste storage area:</p> <ul style="list-style-type: none"> (a) located behind the applicable frontage setback; (b) of not less than 1.5m² per dwelling; (c) screened to view from the frontage and any dwelling by a wall of height not less than 1.2m above finished ground level; and (d) not less than 6.0 from a window, door, balcony, deck, roof garden, or private open space area of a dwelling. 	
<p>12.4.5 Frontage fences</p>	
<p>12.4.6–(A1) The height of a fence, including any supporting retaining wall on a frontage or within a frontage setback must be:</p> <ul style="list-style-type: none"> (a) not more than 1.2m if the fence is solid; or (b) not more than 1.8m provided that part of the fence above 1.2m has openings that provide a uniform transparency of not less than 30%. 	<p>Not applicable.</p> <p>No frontage fence proposed.</p>

12.4.7 Setback of development for sensitive use	
<p>12.4.7-(A1) A building containing a sensitive use must be contained within a building envelope determined by:</p> <ul style="list-style-type: none"> (a) the setback distance from the zone boundary as shown on the Table to this clause; and (b) projecting upward and away from the zone boundary at an angle of 45 degrees above the horizontal from a wall height of 3.0m at the required setback distance from the zone boundary. 	<p>Not applicable.</p> <p>No applicable zone boundary.</p>
<p>12.4.7-(A2) Development for a sensitive use must be not less than 50.0m from:</p> <ul style="list-style-type: none"> (a) the Bass Highway; (b) a railway; (c) land designated in the planning scheme for future road, or rail purposes, or (d) a proclaimed wharf area. 	<ul style="list-style-type: none"> (a) Compliant. Site would be 2.7km from the Bass Highway. (b) Compliant. Site would be 2.9km from a railway. (c) Not applicable. No designated future road or rail in the Planning Scheme. (d) Compliant. Nearest proclaimed wharf is in Devonport, approximately 15km to the east.

12.4.8 Subdivision	
12.4.8-(P1) Each new lot on a plan of subdivision must be:	Not applicable.
(a) intended for residential use;	No subdivision proposed.
(b) a lot required for public use by the State Government, a Council, a statutory authority, or a corporation, all the shares of which are held by or on behalf of the State, a Council, or by a statutory authority; or	
(c) for a purpose permissible in the zone.	
12.4.9 Reticulation of an electricity supply to new lots on a plan of subdivision	
12.4.9-(A1) Electricity reticulation and site connections must be installed underground.	Not applicable. No subdivision proposed.
CODES	
E1 Bushfire-Prone Areas Code	Not applicable. Not a subdivision, hazardous or vulnerable use.
E2 Airport Impact Management Code	Not applicable. No Code in this Planning Scheme.
E3 Clearing and Conversion of Vegetation Code	Not applicable. No clearing or conversion of vegetation proposed.

E4 Change in Ground Level Code	
E4.2 Application of Code	Applicable. A 1.5m deep cut is required for development of the shed.
E4.4 Development exempt from this Code	
<p>E4.4.1</p> <p>Development is exempt if –</p> <p>(a) development is for –</p> <p style="padding-left: 40px;">(i) resource development being agricultural use dependent on the soil as a growth medium or controlled environment agriculture which does not alter, disturb or damage the existing soil profile; or</p> <p style="padding-left: 40px;">(ii) extractive industry;</p> <p style="padding-left: 40px;">(iii) for the Port and Shipping use class in the Port and Marine zone.</p> <p>(b) a change in ground level –</p> <p style="padding-left: 40px;">(i) if more than 1.5m from a boundary to the site –</p>	<p>(a)(i) Does not satisfy exemption criteria. Not resource development.</p> <p>(a)(ii) Does not satisfy exemption criteria. Not extractive industry.</p> <p>(a)(iii) Does not satisfy exemption criteria. Not for Port and Shipping purposes.</p> <p>(b)(i)a. Does not satisfy exemption criteria. More than 1.5m from a boundary however cut is greater than 1m in depth.</p> <p>(b)(i)b. Satisfies exemption. Not within 30m of a watercourse.</p> <p>(b)(i)c. Satisfies exemption. More than 1m from any easement, road or right of way.</p> <p>(b)(i)d. Satisfies exemption criteria. More than 1m from an underground utility service.</p> <p>(b)(i)e. Does not satisfy exemption criteria. Involves an area greater than 200m².</p> <p>(b)(i)f. Does not satisfy exemption criteria. Is supported by a retaining wall greater than 1m height.</p>

<ul style="list-style-type: none"> a. has a depth of less than 1.0m; b. is not within a water course; c. is more than 1.0m from any easement, road, or right-of-way; d. is more than 1.0m from an underground utility service; e. involves an area of less than 200m²; f. has a finished slope batter of less than 25% or is supported by a retaining wall of less than 1.0m height; and g. is not on land to which Code E6 of this planning scheme applies <p>(ii) if less than 1.5m from a boundary to the site –</p> <ul style="list-style-type: none"> a. has a depth of not more than 0.5m; and 	<ul style="list-style-type: none"> (b)(i)g. Satisfied exemption criteria . Is not on land to which Code E6 of this planning scheme applies (landslip hazard). (b)(ii)a. Not applicable. Change in ground level is not less than 1.5m from a boundary. (b)(ii)b. Not applicable. Change in ground level is not less than 1.5m from a boundary. (b)(ii)c. Not applicable. Change in ground level is not less than 1.5m from a boundary.
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<p>b. has a finished slope batter of less than 25% and tapering to zero depth at the boundary; or</p> <p>c. is supported by a retaining wall of less than 0.5m height.</p>	
E4.6 Development Standards	
E4.6.1 Change in existing ground level or natural ground level	
<p>E4.6.1–(A1) Cut or fill must:</p> <p>(a) not be on land within the Environmental Living zone or the Environmental Management zone;</p> <p>(b) be required to:</p> <p>(i) provide a construction site for buildings and structures;</p> <p>(ii) facilitate vehicular access;</p> <p>(iii) mitigate exposure to a natural or environmental hazard;</p> <p>(iv) facilitate provision of a utility;</p>	<p>(a) Compliant. Land is zoned Low Density Residential.</p> <p>(b)(i) Compliant. Cut is required for building construction.</p> <p>(b)(ii) Not applicable. Satisfied by (b)(i).</p> <p>(b)(iii) Not applicable. Satisfied by (b)(i).</p> <p>(b)(iv) Not applicable. Satisfied by (b)(i).</p> <p>(b)(v) Not applicable. Satisfied by (b)(i).</p> <p>(b)(vi) Not applicable. Satisfied by (b)(i).</p> <p>(c)(i) Compliant by a condition to a Permit. Stormwater to be collected and drained to an approved stormwater system.</p>

<p>(v) assist the consolidation or intensification of development; or</p> <p>(vi) assist stormwater management;</p> <p>(c) not result in a modification of surface stormwater water flow to increase:</p> <p>(i) surface water drainage onto adjacent land;</p> <p>(ii) pooling of water on the site or on adjacent land; or</p> <p>(iii) the nature or capacity of discharge from land upstream in a natural or artificial drainage channel;</p> <p>(d) not destabilise any existing building or increase the requirements for construction of any potential building on adjacent land;</p> <p>(e) manage disposal of intersected ground water;</p> <p>(f) safeguard the quality of receiving waters through measures to minimise erosion and release of sediments and other contaminants during each of the</p>	<p>(c)(ii) Compliant by a condition to a Permit. Stormwater to be collected and drained to an approved stormwater system.</p> <p>(c)(iii) Compliant by a condition to a Permit. Stormwater to be collected and drained to an approved stormwater system.</p> <p>(d) Compliant. Cut and retaining walls designed by D1 Engineering Consultants. Works would not result in any impacts on adjoining land.</p> <p>(e) Compliant. Retaining walls would include drainage construction to intersect and dispose of ground water, if any.</p> <p>(f) Compliant by a condition to be placed on a permit.</p> <p>(g) Compliant. Retaining wall would not result in a line of influence onto adjoining land.</p> <p>(h)(i) Compliant. Change in ground level and retaining wall would not encroach upon or expose, disturb or reduce cover over an underground utility.</p> <p>(h)(ii) Compliant. Change in ground level and retaining wall would not encroach upon or expose, disturb or reduce cover over an underground utility.</p>
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<p>site preparation, construction and rehabilitation phase in accordance with Soil and Water Management on Building and Construction Sites 2009;</p> <p>(g) not require a retaining or support structure that would result in a 'line of influence' of more than 450mm into any adjacent land unless the owner of adjacent land has provided written consent to enter into an agreement under Part 5 <i>Land Use Planning and Approvals Act 1993</i> registered on the title of adjacent land to provide for the level of constraint; and</p> <p>(h) not encroach upon or expose, disturb, or reduce cover over an underground utility to less than 1.0m unless the relevant regulatory entity has advised:</p> <p>(i) it is satisfied the cut or fill will not result in harm to the utility; and</p> <p>(ii) any condition or requirement it determines are appropriate to protect the utility.</p>	
E5 Local Heritage Code	Not applicable. No local heritage schedule in this Scheme.
E6 Hazard Management Code	Not applicable. No hazards identified.

E7 Sign Code	Not applicable. No signage proposed.
E8 Telecommunication Code	Not applicable. No telecommunications facilities proposed.
E9 Traffic Generating Use and Parking Code	
E9.2 Application of this Code	Applicable.
E9.4 Use or development exempt from this Code	Not exempt.
E9.5 Use Standards	
E9.5.1 Provision for parking	
E9.5.1–(A1) Provision for parking must be:	Compliant.
(a) the minimum number of on-site vehicle parking spaces must be in accordance with the applicable standard for the use class as shown in the Table to this Code.	The development includes a two-car internal garage.
E9.5.2 Provision for loading and unloading of vehicles	
E9.5.2–(A1) There must be provision within a site for:	Not applicable.
(a) on-site loading area in accordance with the requirement in the Table to this Code; and	No requirement for residential use.

(b) passenger vehicle pick-up and set-down facilities for business, commercial, educational and retail use at the rate of one space for every 50 parking spaces.	
E9.6 Development Standards	
E9.6.2 Design of vehicle parking and loading areas	
E9.6.1 A1.1 All development must provide for the collection, drainage and disposal of stormwater; and	Compliant by Condition.
<p>E9.6.2 A1.2 Other than for development for a single dwelling in the General Residential, Low Density Residential, Urban Mixed Use and Village Zones, the layout of vehicle parking area, loading area, circulation aisle and maneuvering area must –</p> <p>(a) Be in accordance with AS/NZS 2890.1 (2004) – Parking Facilities – Off-Street Car Parking;</p> <p>(b) Be in accordance with AS/NZS 2890.2 (2002) Parking Facilities – Off-Street Commercial Vehicles;</p> <p>(c) Be in accordance with AS/NZS 2890.3 (1993) Parking Facilities – Bicycle Parking Facilities;</p> <p>(d) Be in accordance with AS/NZS 2890.6 Parking Facilities – Off-Street Parking for People with Disabilities;</p>	<p>Not applicable.</p> <p>Development is in the Low Density Residential zone.</p>

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<p>(e) Each parking space must be separately accessed from the internal circulation aisle within the site;</p> <p>(f) Provide for the forward movement and passing of all vehicles within the site other than if entering or leaving a loading or parking space;</p> <p>(g) Be formed and constructed with compacted sub-base and an all-weather surface.</p>	
E9.6.2–(A2) Design and construction of an access strip and vehicle circulation, movement and standing areas for use or development on land within the Rural Living, Environmental Living, Open Space, Rural Resource, or Environmental Management zones must be in accordance with the principles and requirements for in the current edition of Unsealed Roads Manual – Guideline for Good Practice ARRB.	Not applicable.
SPECIFIC AREA PLANS	
F1.0 Forth Specific Area Plan	Applicable.
F1 Application of Specific Area Plan	Applicable.
F1.7 Development Standards	

F1.7.1 Design and location of development	
<p>A1</p> <p>An addition to a building must be –</p> <p>(a) located to the rear of the existing building and</p> <p>(b) not exceed the height of the existing building.</p>	<p>Not applicable.</p> <p>Not an addition to a building.</p>
<p>A2 Building height must not be more than 5.5 metres.</p>	<p>Non-compliant.</p> <p>The maximum height of the dwelling would be 9.5m above natural ground level.</p> <p>Refer to the “Issues” section of this report.</p>
F1.7.2 Subdivision	
<p>A1</p> <p>The minimum site area must be –</p> <p>(a) 4,000m² if on land in the area marked with a cross hatch on the planning scheme map for the Forth Specific Area Plan; or</p>	<p>Not applicable.</p> <p>The development does not involve subdivision.</p>

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(b) 2,000m ² if on land marked with a diagonal stripe on the planning scheme map for the Forth Specific Area Plan.	
F2.0 Ulverstone Wharf Specific Area Plan	Not applicable.
F3.0 Penguin Specific Area Plan	Not applicable.
F5.0 Not in this Scheme	Not applicable.
F6.0 Revel Lane Precinct Specific Area Plan	Not applicable.

Issues –

1 *12.4.3 Location and Configuration of development – building envelope*
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The Planning Scheme's Acceptable Solution 12.4.3–(A2) requires that a building be contained within a building envelope that is determined by the front and rear boundary setbacks and side boundary setbacks that incorporate a line of development projecting at 45° angle from a horizontal height of 3m above natural ground level.

The proposed development seeks a variation to the building envelope standard and an exercise of discretion is required to determine if a Permit may be issued.

The dwelling would satisfy front, rear and side boundary location setbacks. However, primarily due to the height of the dwelling's foundations over sloped land, the building roofline would project outside the required building envelope on the south-eastern side of the building.

The Performance Criteria 12.4.3–(P2) requires that for variations to building envelope standards, a dwelling must:

- (a) minimise the likelihood of overshadowing of a habitable room or minimum area of private open space for any adjoining dwelling;

Comment –

The application is accompanied by a set of shadow pattern diagrams by Lachlan Walsh Design. The diagrams demonstrate that the proposed dwelling would not result in an unreasonable level of overshadowing to the habitable rooms or the private open space areas of adjoining dwellings. Primarily, this would be due to the 30m separation distance between the adjoining dwelling to the south and the proposed location of the dwelling at 5 Fysh Street, that would be located towards the central area of the allotment, not located directly opposite existing dwellings to the north and south.

Whilst the adjoining lot to the south would receive some overshadowing from 3.00pm, the development would allow for the adjoining private open space areas and habitable rooms

receiving at least three hours of sunlight between 9.00am and 3.00pm on 21 June. This is an Acceptable Solution standard in a residential zone. Refer to the aerial view of the land in Annexure 5 and Shadow Pattern Diagrams by Lachlan Walsh Design, Drawing No. 02 in Annexure 2.

- (b) minimise the apparent bulk and scale, massing and proportions relative to any adjacent building:

Comment –

The proposed dwelling would be a double-storey, split-level, “boomerang” shaped building that would project slightly outside the required building envelope. Whilst the boundary setbacks for dwelling location are satisfied, the design of the building relies on the construction of large foundations that elevate the lower floor more than 1 m above natural ground level and, subsequently elevates the upper floor level, resulting in the roof line of the dwelling being outside the building envelope. The projection outside the building envelope is marginal, the split-level design will “break-up” the mass of the building and the “twist” in the floor plan adds interest to the proportions of the dwelling.

- (c) be consistent with the streetscape;

Comment –

Forth village accommodates several dwellings that have relied on split-level design, or the projection of a single level, to account for the slope of the land. Many of the new dwellings in the area exceed building envelopes, and often building height criteria, resulting in affordable construction on sloped sites. The design of the proposed dwelling is consistent with the Fysh Street streetscape. Refer to photographs in Annexure 5.

- (d) respond to the effect of slope and orientation of the site; and

Comment –

The design is a response to the slope of the land that has, approximately, a 1:15 upslope rising from the south-eastern corner to the north-western corner of the allotment. This has

resulted in the need for retaining walls and a split level design to accommodate the dwelling and shed on the site.

- (e) provide separation between buildings to attenuate impact.

Comment –

The proposed separation between buildings is acceptable. A distance greater than 30m would separate the proposed dwelling from an adjacent dwelling to the south and 17m would separate the proposed shed and retaining wall from an existing dwelling to the north.

The proposed development is considered to have satisfied Performance Criteria 12.4.3–(P2).

2 *Visual and acoustic privacy for residential development – lower level deck –*

The Scheme's Acceptable Solution 12 4.4–(A1) requires that a window or door to a habitable room, or part of a balcony, deck, roof garden, parking space or carport that has a finished surface or floor level more than 1m, must be setback 3m from a side boundary or, for a window/door, be off-set not less than 1.5m from a window/door in another dwelling; or for a deck, have a fixed durable external screen not less than 1.8m in height above the finished floor level for the full width of the deck.

The upper level of the dwelling would be setback 4.1 m from the nearest side boundary and as such satisfies the Planning Scheme's Acceptable Solution 12 4.4–(A1) for privacy.

The lower level of the dwelling would be setback 2m from the southern boundary. The design detail shows that whilst lower level window Nos. W02, W03 and W04 (refer to Plans in Annexure 2) would be greater than 1m above natural ground level, the development would satisfy the Planning Scheme's Acceptable Solution with a 1.5m off-set to adjoining dwellings.

However, the lower level deck would also be greater than 1m above ground level and would have clear all-round balustrading. Whilst the deck could also be considered to be off-set from the adjoining dwelling, the applicant has relied on the 30m separation to satisfy privacy standards.

An exercise of discretion is required in this regard, to determine if a Permit may be issued.

The Scheme's Performance Criteria 12.4.4-(P1) requires that the likelihood of overlooking must be minimised by:

- (a) physical separation from other doors, windows or deck;
- (b) off-set from adjacent doors and windows;
- (c) the effective use of screening other than vegetation; or
- (d) effect of topography and natural features.

The applicant has stated that, for privacy, the development relies on the physical separation distances of 30m from the development to the adjoining dwelling to the south and 17m to the adjoining dwelling to the north. The Scheme's Performance Criteria requires that only one of the above standards be satisfied in the Low Density Residential zone. Whilst the Planning Authority could insist on 1.8m high screening along the southern side of the lower deck, it is considered to be acceptable that a 17m–30m separation between dwellings in a residential zone is more than adequate for privacy purposes and, as such, satisfies the Planning Scheme's relevant Performance Criteria.

Based on the above, the proposed development is considered to have satisfied Performance Criteria 12.4.4-(P1).

3 *Building height under the Forth Specific Area Plan –*

The land is located within the Forth Specific Area Plan overlay area (Forth SAP). Whilst other residential zones require a building height to be 8.5m, the Forth SAP Acceptable Solution F1.7.1-(A2) states that a building height must be not more than 5.5m.

The proposed dwelling would have a final height of 9.5m when viewed from the east (frontage), with side views varying due to the split-level design and "boomerang" floor plan. Refer to Elevations by Lachlan Walsh Design, Drawing Nos. 05 and 06 in Annexure 2. As detailed in the Elevations, the further the dwelling is positioned towards the frontage, the more the height of the dwelling exceeds the standard 5.5m height. This is due to the slope of the land that is approximately 1:15, sloping upwards from the south-east to the north-west.

Development standards under the Forth SAP require that the design and location of a building maintain the “local character attributes and features of existing development” in terms of –

- (a) Integrity of the fabric and structure of the building, place, or area –

Compliant. The Forth village is located in a valley and is an early settlement area that exhibits a mixture of dwelling styles. Some early dwellings are small, single-storey timber and iron buildings, constructed over various time periods. Over the past 20–30 years there has been an influx of larger, modern dwellings that have used engineered design to accommodate sloping land, using a mix of materials and dwelling heights. Forth has evolved to be an eclectic mix of dwelling design and materials in a village setting.

The proposed development is not dissimilar to other recent developments in the area, using the slope of valley land to maximise views across the village and to rural hinterland.

- (b) Setback, scale and height of the building relative to existing development on the site and on adjacent land –

Compliant. There are no other buildings on the subject site. Immediate views of the dwelling from Fysh Street would be minimal. The land is an internal allotment and the proposed dwelling would be setback more than 110m from the Fysh Street frontage. The dwelling would be similar in height to that approved at 1, 3 and 11 Fysh Street. The height of the dwelling would be most obvious from adjoining land to the south and north. However, there is a 17–30 metre separation between dwellings and ample land area to minimise visual scale and bulk through landscaping of the subject and adjoining properties.

- (c) Vegetation and other improvements on the site or on adjacent land –

Compliant. The site is cleared of native vegetation and a landscape plan does not accompany the application. Adjoining allotments to the east, south and west are also primarily clear of vegetation. There is ample land area for extensive gardens to be established on site.

- (d) Separation of buildings and external activity areas from a frontage –

Compliant. The development and external activity areas would be 110m from Fysh Street.

- (e) Local building, place or area, including –

- (i) roof form and pitch;

Compliant. As stated above, the Forth village comprises a mix of dwelling designs and roof styles. The proposal is for a pitched roof design, which is similar in form to other dwellings within the Forth village.

- (ii) fenestration;

Compliant. Fenestration is the arrangement of windows in a building. The proposed dwelling demonstrates good solar access design with large windows facing east, north-east and north, and smaller windows to the south and west.

- (iii) methods and techniques of construction;

Compliant. The design is well considered to account for changes in ground level and a “boomerang” floor plan to maximise solar access, vehicle and pedestrian access and slope variations. The application is accompanied by engineering drawings for a retaining wall that will accommodate the shed area. The development would require Building and Plumbing Permits.

- (iv) external fabric, materials and finish;

Compliant. The area is of mixed dwelling designs and heights. The dwelling would be of clad with a mix of materials, including timber, brick and “Colorbond”. The shed too would be of “Colorbond” cladding material.

- (v) colour scheme;

Compliant. The dwelling would be clad with a mix of materials, including timber, brick and “Colorbond”. The colour scheme is to be determine by the applicant.

- (vi) alterations and additions;

Not applicable. Proposal is for a dwelling and outbuilding. No alterations and additions.

- (vii) addition;

Not applicable. Proposal is for a dwelling and outbuilding. No addition.

- (viii) garden design, planting and any structure; and fencing

Not known. The application is not accompanied by a garden design. The land is an internal allotment. Front fencing will primarily comprise a gate system.

The Performance Criteria under the Forth SAP, for buildings that exceed the standard 5.5m in height, examines matters that relate to the design of a building and its relationship with the subject and surrounding land. The criteria does not impose a particular “period” or “style” of design on the applicant, rather it requires the designer to consider and detail all aspects of the design so they may be examined as to “maintaining the local character attributes and features of existing development”.

In examining the proposed dwelling, it is evident that the building will be of modern design with a split-level floor plan and a “boomerang” shaped floor plan, so as to maximise light into the building, accommodate the slope of the land and to allow for access to the dwelling over sloped land. Building materials will be a mixture of timber cladding, brick and Colorbond wall and roof cladding.

The height of the building when viewed from Fysh Street will be minimal, if at all evident.

As previously stated, over the past 20–30 years there has been an influx of larger, modern dwellings into the village of Forth that have used engineered design to accommodate sloping land, using a mix of materials and dwelling heights. Forth has evolved to be an eclectic mix of dwelling design and materials in a village setting.

The proposed development is not dissimilar to other recent developments in the area, using the slope of the valley’s land to maximise views across the village to rural hinterland.

Referral advice –

Referral advice from the various Departments of the Council and other service providers is as follows:

SERVICE	COMMENTS/CONDITIONS
Environmental Health	No comment.
Infrastructure Services	Statement of Compliance dated 10 June 2020.
Building	Building Note No. 10 to be applied to any Permit issued.
TasWater	Referral not required.
Department of State Growth	Referral not required.
Environment Protection Authority	Referral not required.
TasRail	Referral not required.
Heritage Tasmania	Referral not required.
Crown Land Services	Referral not required.
Tas Networks	Correspondence from Tas Networks dated 23 March 2020.

CONSULTATION

In accordance with s.57(3) of the *Land Use Planning and Approvals Act 1993*:

- . a site notice was posted;
- . letters to adjoining owners were sent; and
- . an advertisement was placed in the Public Notices section of The Advocate.

Representations –

One representation was received within the prescribed time, a copy of which is provided in Annexure 3.

The representation is summarised and responded to as follows:

MATTER RAISED	RESPONSE
1 Concerned the house will block natural sunlight and shade main living areas and a large area of the block.	<p>The proposed dwelling will be separated from the land at 30 Walker Street by a distance of 30m. The proposed dwelling will also be off-set, located further to the west of 7 Fysh Street, not directly opposite the existing dwelling at 30 Walker Street. Shadow diagrams submitted with the application show that on the shortest day of the year, 21 June, shadow will impact on a portion of the land at 30 Walker Street from 3.00pm in the afternoon. This is not considered to be an unreasonable impact and less than that experienced in other residential areas.</p> <p>Please refer to the "Issues" section of the report where a full analysis of the impact is undertaken.</p>
2 Concern that loss of privacy has not been taken into account. Proposed house will "tower" over 30 Walker Street, including over external entertainment areas.	<p>The Planning Scheme requires a 3m side boundary setback to satisfy privacy standards. The upper level of the dwelling would be setback 4.1m from the nearest side boundary and, as such, satisfies the Planning Scheme's Acceptable Solution 12 4.4-(A1) for privacy.</p> <p>The lower level of the proposed dwelling would be setback 2m from the southern boundary to 30 Walker Street. The design detail shows that whilst lower level window Nos. W02, W03 and W04 would be greater than 1m above natural ground level, the development would also satisfy the Planning</p>

	<p>Scheme's Acceptable Solution with a 1.5m off-set to any adjoining dwellings.</p> <p>The lower deck does not satisfy the Acceptable Solution standard as it is to be constructed with clear balustrading and is not screened.</p> <p>Whilst the Planning Authority, could insist on 1.8m high screening along the southern side of the lower deck, it is considered to be acceptable that a 17m-30m separation between dwellings is more than adequate for privacy purposes and as such is considered to satisfy the Planning Scheme's relevant Performance Criteria.</p>
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RESOURCE, FINANCIAL AND RISK IMPACTS

The proposal has no likely impact on Council resources outside those usually required for assessment and reporting, and possibly costs associated with an appeal against the Council's determination should one be instituted.

CORPORATE COMPLIANCE

The Central Coast Strategic Plan 2014-2024 includes the following strategies and key actions:

The Environment and Sustainable Infrastructure

- Develop and manage sustainable built infrastructure.

CONCLUSION

The representation does not contain sufficient merit to justify the addition of any restrictive condition to a Permit issued, or refusal of the development.

The proposed dwelling and outbuilding is Permitted development in the Low Density Residential zone. The application was discretionary due to a variation to building height, setback of the lower deck to the southern side boundary and variation to the required building envelope. The proposed development,

as discussed in the “Issues” section of this report, is considered to have satisfied the applicable Scheme’s Performance Criteria.

The proposed development is considered to be a reasonable development in the Low Density Residential zone and would be in keeping with the mixed characteristics of the Forth village. It is considered appropriate that the proposed dwelling and outbuilding be approved, subject to conditions.

Recommendation –

It is recommended that the application for Residential (dwelling and outbuilding – shed) – variation to privacy, building envelope and building height standards at 5 Fysh Street, Forth be approved subject to the following conditions and notes:

- 1 The development must be substantially in accordance with the plans by Lachlan Walsh Design, Project No. 19-562, Drawing Nos. 01 to 09, DA Set No. 2, dated 15 January 2020 and plans by D1 Consulting Engineers, Job No. 23120, Drawing Nos. S02 to S19 dated March 2020.
- 2 The dwelling must have a maximum height of 9.5m above natural ground level.
- 3 Stormwater, including from vehicle parking and manoeuvring areas, must be collected, drained and disposed of to an approved stormwater system.
- 4 A minimum of two car parking spaces must be provided on-site and enable the forward movement of vehicles entering and egressing the site.
- 5 Driveways and vehicle parking and manoeuvring areas must be formed and constructed with a compacted sub-base and an all-weather surface.
- 6 The development must minimise erosion and release of sediments during site preparation and construction in accordance with Soil and Water Management on Building and Construction Sites 2009.
- 7 The development must be in accordance with the conditions of the Statement of Compliance for Vehicular Access and Drainage Access dated 10 June 2020 issued by the Council, acting in its capacity, as the Road Authority and the Stormwater Authority.

Please note:

- 1 A Planning Permit remains valid for two years. If the use or development has not substantially commenced within this period, an extension of time may be granted if a request is made before this period expires. If the Permit lapses, a new application must be made.
- 2 “Substantial commencement” is the submission and approval of a Building Permit or engineering drawings and the physical commencement of infrastructure works on the site or bank guarantee to undertake such works.
- 3 Prior to the commencement of work the applicant is to ensure that the category of work for any proposed building, plumbing and/or demolition work is defined using the Determinations issued under the *Building Act 2016* by the Director of Building Control. Any notifications or permits required in accordance with the defined category of work must be attained prior to the commencement of work. It is recommended the Council's Building Permit Authority or a Building Surveyor be contacted should clarification be required.
- 4 The outbuilding is approved for use ancillary to Residential use of the land. If the outbuilding is intended to be used for a purpose other than this, then a further Permit for a change of use would be required.’

The Land Use Planning Group Leader’s report is supported.”

The Executive Services Officer reported as follows:

“A copy of the Annexures referred to in the Land Use Planning Group Leader’s report have been circulated to all Councillors.”

■ Cr Beswick moved and Cr van Rooyen seconded “That the application for Residential (dwelling and outbuilding – shed) – variation to privacy, building envelope and building height standards at 5 Fysh Street, Forth be approved subject to the following conditions and notes:

- 1 The development must be substantially in accordance with the plans by Lachlan Walsh Design, Project No. 19-562, Drawing Nos. 01 to 09, DA Set No. 2, dated 15 January 2020 and plans by D1 Consulting Engineers, Job No. 23120, Drawing Nos. S02 to S19 dated March 2020.
- 2 The dwelling must have a maximum height of 9.5m above natural ground level.

- 3 Stormwater, including from vehicle parking and manoeuvring areas, must be collected, drained and disposed of to an approved stormwater system.
- 4 A minimum of two car parking spaces must be provided on-site and enable the forward movement of vehicles entering and egressing the site.
- 5 Driveways and vehicle parking and manoeuvring areas must be formed and constructed with a compacted sub-base and an all-weather surface.
- 6 The development must minimise erosion and release of sediments during site preparation and construction in accordance with Soil and Water Management on Building and Construction Sites 2009.
- 7 The development must be in accordance with the conditions of the Statement of Compliance for Vehicular Access and Drainage Access dated 10 June 2020 issued by the Council, acting in its capacity, as the Road Authority and the Stormwater Authority.

Please note:

- 1 A Planning Permit remains valid for two years. If the use or development has not substantially commenced within this period, an extension of time may be granted if a request is made before this period expires. If the Permit lapses, a new application must be made.
- 2 "Substantial commencement" is the submission and approval of a Building Permit or engineering drawings and the physical commencement of infrastructure works on the site or bank guarantee to undertake such works.
- 3 Prior to the commencement of work the applicant is to ensure that the category of work for any proposed building, plumbing and/or demolition work is defined using the Determinations issued under the *Building Act 2016* by the Director of Building Control. Any notifications or permits required in accordance with the defined category of work must be attained prior to the commencement of work. It is recommended the Council's Building Permit Authority or a Building Surveyor be contacted should clarification be required.
- 4 The outbuilding is approved for use ancillary to Residential use of the land. If the outbuilding is intended to be used for a purpose other than this, then a further Permit for a change of use would be required."

Carried unanimously

INFRASTRUCTURE SERVICES

192/2020 **Central Coast Stormwater System Management Plan**

The Director of Infrastructure Services reported as follows:

“The Engineering Group Leader has prepared the following report:

‘PURPOSE

The purpose of this report is to consider the adoption by the Council of the Central Coast Stormwater Systems Management Plan (the Plan). A copy of the Plan is appended to this report.

BACKGROUND

Tasmanian councils are required to develop a Stormwater System Management Plan under the *Urban Drainage Act 2013* (the Act). The Act provides councils with the necessary powers to ensure the operation and protection of their stormwater management systems.

The Central Coast Council manages an extensive urban stormwater reticulation network, within the areas of Ulverstone, Penguin, Turners Beach, Forth, Leith, Gawler, Preservation Bay, Sulphur Creek, Howth and Heybridge.

Outside of the urban area, the Council’s role in stormwater management relates primarily to roadside drainage and providing a passage for natural stream and overland flows, where roads intercept. Generally speaking, the Plan does not address issues relating to stormwater management in the rural area.

DISCUSSION

The main objective of the Plan is to protect the community by ensuring the safe and sustainable provision of stormwater services.

Under the Act, the Council is a *stormwater service provider* and as such has an obligation to provide and manage an appropriate stormwater reticulation and to manage potential risks associated with stormwaters.

The Plan is framed around these stormwater management objectives:

- . Document infrastructure performance requirements and standards for stormwater assets and communicate to key stakeholder.

- . Fund the maintenance and operation of the stormwater reticulation in accordance with adopted stormwater service levels.
- . Develop the reticulation within the urban areas, to meet user needs for appropriate and safe stormwater disposal.
- . To understand systems deficiencies and flooding (localised and broader catchment) risks, and possible mitigation measures.
- . Identify priorities for improvement and mitigation activities.
- . Develop a plan to progressively improve waterway environment and water quality in the natural systems impacted by stormwater systems.

CONSULTATION

Information will be made available to the public via Council's website after adoption by the Council.

RESOURCE, FINANCIAL AND RISK IMPACTS

The Plan is in harmony with the Long-term Financial Plan. The current year's budget for the modelling software and survey of the stormwater infrastructure would be sufficient and carried over to the next financial year for operation/implementation.

CORPORATE COMPLIANCE

The Central Coast Strategic Plan 2014–2024 includes the following strategies and key actions:

The Environment and Sustainable Infrastructure

- . Develop and manage sustainable built infrastructure.

Council Sustainability and Governance

- . Improve the Council's financial capacity to sustainably meet community expectations.

CONCLUSION

It is recommended that the Central Coast Stormwater System Management Plan be adopted by the Council.'

The Executive Services Officer reported as follows:

“A copy of Central Coast Stormwater System Management Plan has been circulated to all Councillors.”

■ Cr van Rooyen moved and Cr Carpenter seconded “That the Central Coast Stormwater System Management Plan be adopted (a copy being appended to and forming part of the minutes).”

Carried unanimously

ORGANISATIONAL SERVICES

193/2020 Annual Plan for the year ending 30 June 2021

The General Manager reported as follows:

“Section 71 of the *Local Government Act 1993* provides as follows:

- ‘...(1) A council is to prepare an annual plan for the municipal area for each financial year.
- (2) An annual plan is to –
 - (a) be consistent with the strategic plan; and
 - (b) include a statement of the manner in which the council is to meet the goals and objectives of the strategic plan; and
 - (c) include a summary of the estimates adopted under section 82; and
 - (d) include a summary of the major strategies to be used in relation to the council’s public health goals and objectives ...’

The Annual Plan for the year ending 30 June 2021 has been prepared and is submitted for approval.”

The Executive Services Officer reported as follows:

“A copy of the Annual Plan for the year ending 30 June 2021 has been circulated to all Councillors.”

■ Cr Fuller moved and Cr Viney seconded “That the Annual Plan for the year ending 30 June 2021 be approved.”

Carried unanimously

194/2020 Estimates for the year ending 30 June 2021

The Director Organisational Services reported as follows:

“Section 82 of the *Local Government Act 1993* provides that estimates of the Council’s revenue and expenditure must be prepared for each financial year as follows:

‘...(2) Estimates are to contain details of the following:

- (a) the estimated revenue of the council;
- (b) the estimated expenditure of the council;
- (c) the estimated borrowings by the council;
- (d) the estimated capital works of the council;
- (e) any other detail required by the Minister.

(3) Estimates for a financial year must –

- (a) be adopted by the Council, with or without alteration, by absolute majority; and
- (b) be adopted before 31 August in that financial year; and
- (c) not be adopted more than one month before the start of that financial year.

...’

Estimates for the year ending 30 June 2021 have been prepared.”

The Executive Services Officer reported as follows:

“A copy of the Estimates have been circulated to all Councillors.”

■ Cr Viney moved and Cr Hiscutt seconded “That the Estimates for the year ending 30 June 2021 be adopted.”

Carried unanimously

195/2020 Fees and Charges for the year ending 30 June 2021

The Director Organisational Services reported as follows:

“A list of Fees and Charges for the year ending 30 June 2021 is submitted for fixing by the Council.

The Council set fees and charges have not changed from the previous year in recognition of the hardship being endured by our community. Some of the fees are statutory and are therefore set by other authorities.”

The Executive Services Officer reported as follows:

“A copy of the Fees and Charges for the year ending 30 June 2021 have been circulated to all Councillors.”

■ Cr Hiscutt moved and Cr Diprose seconded “That the Fees and Charges for the year ending 30 June 2021 be fixed.”

Carried unanimously

196/2020 Long-term Financial Plan 2020–2030

The Director Organisational Services reported as follows:

“PURPOSE

The purpose of this report is to consider the Long-term Financial Plan 2020–2030 (LTFP) which outlines the steps the Council will take to realistically achieve its objectives whilst maintaining financial sustainability and addressing the major financial challenges and opportunities which will impact on the way the Council does business over the next 10 years.

BACKGROUND

In the current economic climate, the Central Coast Council faces a challenge in funding its on-going operations and adequately maintaining its community assets. The growth in the cost of labour and materials, increasing demand for services and the Council’s limited ability to generate revenue from rates, have created a challenging financial environment.

At the core of the Central Coast Council’s future financial sustainability will be the ability to adapt and respond to the challenges we face in delivering services more efficiently, reducing expenditure, developing opportunities to generate additional revenue sources and to deliver projects and initiatives based on the strategic directions identified in the Central Coast Strategic Plan 2014–2024.

In order to achieve its objectives and financial sustainability, there must be in place a long-term financial plan which will outline the steps the Council will take to

realistically address the major financial challenges and opportunities which will impact on the way it does business over the next 10 years.

DISCUSSION

The LTFP is the key 10 year financial planning document of the Council. It is governed by a series of financial strategies and accompanying performance indicators. It establishes the financial framework upon which sound financial decisions are made to ensure long-term financial sustainability, it is a mechanism to ensure equality between generations of ratepayers in that each generation is responsible for the costs of the resources that they consume, and it demonstrates the Council's obligation and commitment to sound financial planning to ensure the future prosperity of the community.

The long-term financial framework has been developed for the following key reasons:

- . To establish a prudent and sound financial framework, combining and integrating financial strategies to achieve a planned outcome;
- . To provide an assessment of the resources (financial and non-financial) required to accomplish the objectives and strategies included in the Strategic Plan and Asset Management Plans (where non-financial resources are assumed to include human resources and the Council's asset base);
- . To provide an assessment of the Council's financial risks;
- . To establish a basis to measure the Council's adherence to its policies and strategies; and
- . To assist the Council to comply with sound financial management principles and to plan for the long-term financial sustainability of the municipal area.

The LTFP is for the period 1 July 2020 to 30 June 2030. It is based on projected performance against carefully developed sustainability targets and it accommodates in quantum and timing the activities set out in the Asset Management Plans.

The LTFP is reviewed and updated annually as part of the budgeting process to form part of the Corporate Folder.

It has been developed to achieve the following objectives within the 10 year time frame:

- . The achievement of a prudent balance between maintaining the existing range and level of service provision;

- . Maintain a strong cash position, ensuring the Council remains financially sustainable in the long-term;
- . Achieve underlying surpluses which exclude from operating surpluses items such as granted assets and capital income and expenditure;
- . Maintain debt levels below prudential guidelines;
- . Continue to pursue capital grant funding for strategic capital projects from the State and Federal Governments;
- . Provide for rate increases that are not excessive and can be justified in a positive and transparent way;
- . Maintain the ability to fund both capital works in general and meet the asset renewal requirements as outlined in asset management planning; and
- . Fees and Charges increases that are both manageable and sustainable.

CONSULTATION

Workshops have been held with the Councillors with regard to the Long-term Financial Management of the Council through the budget processes.

RESOURCE, FINANCIAL AND RISK IMPACTS

The adoption of the LTFP has no impact on resources other than the usual resources in the preparation of the Plan.

CORPORATE COMPLIANCE

The Central Coast Strategic Plan 2014–2024 include the following strategies and key actions:

Council Sustainability and Governance

- . Improve corporate governance
- . Improve the Council's financial capacity to sustainably meet community expectations.

CONCLUSION

It is recommended that the Council adopt the Long-term Financial Plan 2020–2030.”

The Executive Services Officer reported as follows:

“A copy of the Long-term Financial Plan 2020–2030 has been circulated to all Councillors.”

■ Cr Carpenter moved and Cr van Rooyen seconded “That the Council adopt the Long-term Financial Plan 2020–2030.”

Carried unanimously

197/2020 Rates and Charges for the year ending 30 June 2021

The Director Organisational Services reported as follows:

“A specification of the Rates and Charges to be levied in order to meet the objectives of the Annual Plan has been included within the Estimates for the year ending 30 June 2021.

The rates and charges this year do not reflect any changes in the rate dollar value from last financial year. The Council this year have chosen to keep rates and charges the same as last year in recognition of the hardship that Covid-19 has put on our community.”

■ Cr Carpenter moved and Cr van Rooyen seconded “That, in accordance with the provisions of the *Local Government Act 1993*, the following Rates and Charges be and are made for the year ending 30 June 2021:

1 General Rate

- (a) A General Rate of 8.578 cents-in-the-dollar based on the assessed-annual-value and is payable on all rateable land within the Central Coast municipal area but shall only be payable in so far as the sum payable under such rate exceeds a minimum amount of \$300.00 otherwise payable in respect of that rate.

2 Service Rates and Charges

- (a) A Fire Protection Service Rate of 0.417 cents-in-the-dollar based on the assessed-annual-value and is payable in respect of all rateable land within the Penguin Urban Fire District and the Ulverstone Urban Fire District but shall only be payable in so far as the sum payable under such rate exceeds a minimum amount of \$41.00 otherwise payable in respect of that rate.

- (b) A Fire Protection Service Rate of 0.417 cents-in-the-dollar based on the assessed-annual-value and is payable in respect of all rateable land within the Forth/Leith Country Fire Brigade District, the Heybridge Country Fire Brigade District and the Turners Beach Country Fire Brigade District but shall only be payable in so far as the sum payable under such rate exceeds a minimum amount of \$41.00 otherwise payable in respect of that rate.
- (c) A Fire Protection Service Rate of 0.468 cents-in-the-dollar based on the assessed-annual-value and is payable in respect of all rateable land outside the Forth/Leith Country Fire Brigade District, the Heybridge Country Fire Brigade District, the Penguin Urban Fire District, the Ulverstone Urban Fire District and the Turners Beach Country Fire Brigade District, but shall only be payable in so far as the sum payable under such rate exceeds a minimum amount of \$41.00 otherwise payable in respect of that rate.
- (d) A Waste Management Service Charge of \$263.00 for each tenement is payable in respect of all rateable land to which there is a supplying, or making available, of waste management services.

3 Payment

- (a) All Rates and Charges shall be payable in one payment on or before the 30th day of September 2020.

4 Discount for early payment

- (a) A discount of 5% is offered to all ratepayers for payment of Rates and Charges in total on or before the 31st day of August 2020 provided that no such discount shall be offered if there are at any time any arrears of Rates and Charges owing.

5 Supplementary Valuation Rate

- (a) If a supplementary valuation is made of any land prior to 30 June 2021 the Council may adjust the amount payable in respect of any rate for that land for the 2020-2021 financial year.
- (b) If an adjusted rate is made of any land, a rate notice must be issued by the General Manager, with the amount shown as credited or payable on that notice due to be paid within 30 days of the date on which that notice issued.

6 Definition

For the purposes of this resolution:

- (a) 'tenement' being rateable land for which a waste management service is supplied or is made available, includes: each separate residential use on that rateable land including each lot or block of land, each house, moveable dwelling unit, flat, home unit or self-contained holiday apartment or holiday unit located on the rateable land."

Carried unanimously

CLOSURE OF MEETING TO THE PUBLIC

198/2020 Meeting closed to the public

The Executive Services Officer reported as follows:

“The *Local Government (Meeting Procedures) Regulations 2015* provide that a meeting of a council is to be open to the public unless the council, by absolute majority, decides to close part of the meeting because one or more of the following matters are being, or are to be, discussed at the meeting.

Moving into a closed meeting is to be by procedural motion. Once a meeting is closed, meeting procedures are not relaxed unless the council so decides.

It is considered desirable that the following matters be discussed in a closed meeting:

Matter	<i>Local Government (Meeting Procedures) Regulations 2015</i> reference
Confirmation of Closed Session Minutes	15(2)(g) Information of a personal and confidential nature or information provided to the council on the condition it is kept confidential
General Manager’s performance review	15(2)(g) Information of a personal and confidential nature or information provided to the council on the condition it is kept confidential

■ Cr Hiscutt moved and Cr Beswick seconded “That the Council close the meeting to the public to consider the following matters, they being matters relating to:

Matter	<i>Local Government (Meeting Procedures) Regulations 2015</i> reference
Confirmation of Closed Session Minutes	15(2)(g) Information of a personal and confidential nature or information provided to the council on the condition it is kept confidential

General Manager's performance review	15(2)(g) Information of a personal and confidential nature or information provided to the council on the condition it is kept confidential."
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Carried unanimously and by absolute majority

The Executive Services Officer further reported as follows:

- "1 The *Local Government (Meeting Procedures) Regulations 2015* provide in respect of any matter discussed at a closed meeting that the general manager is to record in the minutes of the open meeting, in a manner that protects confidentiality, the fact that the matter was discussed and a brief description of the matter so discussed, and is not to record in the minutes of the open meeting the details of the outcome unless the council determines otherwise.
 - 2 While in a closed meeting, the council is to consider whether any discussions, decisions, reports or documents relating to that closed meeting are to be kept confidential or released to the public, taking into account privacy and confidentiality issues.
 - 3 The *Local Government Act 1993* provides that a councillor must not disclose information seen or heard at a meeting or part of a meeting that is closed to the public that is not authorised by the council to be disclosed.
- Similarly, an employee of a council must not disclose information acquired as such an employee on the condition that it be kept confidential.
- 5 In the event that additional business is required to be conducted by a council after the matter(s) for which the meeting has been closed to the public have been conducted, the Regulations provide that a council may, by simple majority, re-open a closed meeting to the public."

The meeting moved into Closed session at 6.38pm.

199/2020 Confirmation of Closed session minutes

The Executive Services Officer reported as follows:

“The Closed session minutes of the previous ordinary meeting of the Council held on 18 May 2020 and the special meeting of the Council held on 25 May 2020 have already been circulated. The minutes are required to be confirmed for their accuracy.

...

The *Local Government (Meeting Procedures) Regulations 2015* provide in respect of a matter discussed at a closed meeting –

‘34(1)(b) in relation to a matter discussed at the closed meeting –

(i) the fact that the matter was discussed at the closed meeting; and

(ii) a brief description of the matter so discussed –

are to be recorded in the minutes of that part of the meeting that is open to the public, but are to be recorded in a manner that does not disclose any confidential information and protects confidentiality; and

(c) in relation to a matter discussed at the closed meeting, the details of the discussion of the matter, and the outcome of the discussion, are not to be recorded in the minutes of that part of the meeting that is open to the public unless the council, or council committee, determines otherwise.’

The details of this matter are accordingly to be recorded in the minutes of the closed part of the meeting.”

200/2020 General Manager's performance review

The General Manager and Council employees left the meeting at 6.41pm.

The Mayor reported (reproduced in part) as follows:

“The General Manager's Performance Review Committee advises the Council that the annual review of the performance of the General Manager has been completed in accordance with clause 6.1 of the Contract of Employment...

...

The *Local Government (Meeting Procedures) Regulations 2015* provide in respect of a matter discussed at a closed meeting –

‘34(1)(b) in relation to a matter discussed at the closed meeting –

- (i) the fact that the matter was discussed at the closed meeting; and
- (ii) a brief description of the matter so discussed –

are to be recorded in the minutes of that part of the meeting that is open to the public, but are to be recorded in a manner that does not disclose any confidential information and protects confidentiality; and

- (c) in relation to a matter discussed at the closed meeting, the details of the discussion of the matter, and the outcome of the discussion, are not to be recorded in the minutes of that part of the meeting that is open to the public unless the council, or council committee, determines otherwise.’

The details of this matter are accordingly to be recorded in the minutes of the closed part of the meeting.”

The General Manager and Council employees returned to the meeting at 7.30pm.

Closure

There being no further business, the Mayor declared the meeting closed at 7.30pm.

CONFIRMED THIS 20TH DAY OF JULY, 2020.

Chairperson

(lb:lc)

Appendices

- Minute No. 186/2020 – Schedule of Correspondence addressed to Mayor and Councillors
- Minute No. 187/2020 – Schedule of Documents for Affixing of the Common Seal
- Minute No. 188/2020 – Schedule of Contracts & Agreements
- Minute No. 189/2020 – Schedule of Statutory Determinations
- Minute No. 192/2020 – Central Coast Stormwater System Management Plan

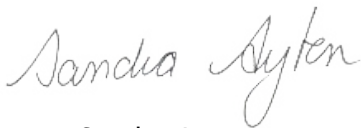
QUALIFIED PERSON'S ADVICE

The *Local Government Act 1993* (the Act), Section 65 provides as follows:

- “(1) A general manager must ensure that any advice, information or recommendation given to the council or a council committee is given by a person who has the qualifications or experience necessary to give such advice, information or recommendation.
- (2) A council or council committee is not to decide on any matter which requires the advice of a qualified person without considering such advice unless –
 - (a) the general manager certifies, in writing –
 - (i) that such advice was obtained; and
 - (ii) that the general manager took the advice into account in providing general advice to the council or council committee; and
 - (b) a copy of that advice or, if the advice was given orally, a written transcript or summary of that advice is provided to the council or council committee with the general manager's certificate.”

In accordance with Section 65 of the Act, I certify:

- (i) that the reports within this agenda contain advice, information and recommendations given by persons who have the qualifications and experience necessary to give such advice, information or recommendation;
- (ii) where any advice is directly given by a person who did not have the required qualifications or experience that person has obtained and taken into account another person's general advice who is appropriately qualified or experienced; and
- (iii) that copies of advice received from an appropriately qualified or experienced professional have been provided to the Council.



Sandra Ayton
GENERAL MANAGER

Associated Reports And Documents

**SCHEDULE OF CORRESPONDENCE RECEIVED ADDRESSED TO
MAYOR AND COUNCILLORS**

Period: 19 May to 22 June 2020

- . Request for Councillors sign a petition and register for an online summit about 5G
- . Petition regarding Dog Management Policy Review 2020 – Dog restrictions to Turners Beach
- . Email inviting the Council to join the movement to eliminate nuclear weapons
- . Meeting request via a Councillors Workshop to learn the outcomes on matters relating to the Councils investigation into the viability and support of a multicourt facility in Penguin, including discussion on the rejuvenation of the Penguin Tennis Courts
- . An email providing comment around DA2019142, 24–26 William Street, Ulverstone
- . Email providing information relating to the ‘No Excuse For Abuse’ campaign in response to the COVID–19 crisis
- . An email providing comment around DA2019142, 24–26 William Street, Ulverstone
- . Email urging Councillors to listen to the online summit about 5G
- . Numerous submissions via email and formal letters regarding the Draft Dog Management Policy
- . Letter advising Artex 2020 has been cancelled due to COVID–19



Sandra Ayton
GENERAL MANAGER

**SCHEDULE OF DOCUMENTS FOR AFFIXING OF
THE COMMON SEAL**

Period: 19 May to 22 June 2020

Documents for affixing of the common seal under delegation

- . Final Plan of Survey
88 Esplanade, Turners Beach – two lots
Application No. DA2018097
- . Final Plan of Survey
8 Shorehaven Drive, Turners Beach – two lots
Application No. DA2018159
- . Strata Plan and Certificate of Strata
146C Main Street, Ulverstone – multiple dwellings
(Prior address 146A Main Street, Ulverstone)
Folio Ref. 143960-2
Application No. DA216171
- . Final Plan of Survey
Boyes Street, Turners Beach – Lot 1 (1028m²)
Application No. DA211037



Sandra Ayton
GENERAL MANAGER

SCHEDULE OF CONTRACTS AND AGREEMENTS

(Other than those approved under the Common Seal)

Period: 19 May to 22 June 2020

Contracts

. Nil

Agreements

- . Acceptance of Dogs Agreement
Central Coast Council and Tasmanian Canine Defence League Inc.
operating as the Dogs' Home of Tasmania
Agreement term: One year from 1 July 2020
- . Crown Land Development Application Request
Central Coast Council and the Department of Primary Industries Parks
Water and Environment
Installation of art mosaic on the Penguin Foreshore
Main Road, Penguin
Lease No. DPIPWE 12898-19 ICD
- . Deed of Agreement
Central Coast Council, The Crown Right of Tasmania and
Tasmanian Railway Pty Ltd (TasRail)
Historic rail bridge site at Forth (previously part of the Western Line)
- . APH Agreement
Unit 10 Cooina, 35-37 Main Street, Ulverstone

Authorisation

- . Letter of Appointment
Central Coast Council and Braddon Building Surveying P/L
For the appointment of Ross Hartley as the lawful agent for any
required certificates and permits necessary relating to the development
and installation of the public art display at the Penguin Foreshore,
Main Road, Penguin
Lease No. DPIPWE 12898-19 ICD



Sandra Ayton
GENERAL MANAGER

Central Coast Council
List of Development Applications Determined
Period from: 1 May 2020 to 31 May 2020

Application Number Display	Address	DA Type	Proposed use	Application Date	Decision Date	Day determined	Cost of Works
DA2019142	24-26 William Street ULVERSTONE,TAS,7315	Discretionary	Residential (demolition of an outbuilding and covered outdoor area and construction of multiple dwellings x eight – 10 dwellings in total)	22/11/2019	25/05/2020	39	\$1,850,000.00
DA2019165	2 Ironcliffe Road and 19 Crescent Street PENGUIN,TAS,7316	Discretionary	Residential (change of use from Community meeting and entertainment to Residential) – single dwelling on Lot 1 and dwelling extension, and subdivision (reconfiguration of boundaries to form two new lots)	16/12/2019	27/05/2020	22	\$80,000.00
DA2020016	464 Clerke Plains Road KINDRED,TAS,7310	Discretionary	Resource development (required dwelling extension) – variation to location of development for sensitive use with a floor area greater than 30% of the existing floor area and within 200m of agricultural land within a proclaimed irrigation district	30/01/2020	14/05/2020	20	\$150,000.00
DA2020026	100 Main Road PENGUIN,TAS,7316	Discretionary	Visitor accommodation and Residential (demolition of existing building and outbuilding, construction of a two-storey building to be used as either Visitor accommodation, single dwelling or multiple dwellings x two)	7/02/2020	22/05/2020	25	\$40,000.00
DA2020037 - 1	1 Crescent Street & 2 Patrick Street ULVERSTONE,TAS,7315	Minor amendment of a Permit.	Hotel industry (demolitions and drive through bottle shop) and Amendment to Sealed Plan CT229743/1.	5/05/2020	28/05/2020	6	\$10,000.00

Central Coast Council
List of Development Applications Determined
Period from: 1 May 2020 to 31 May 2020

Application Number Display	Address	DA Type	Proposed use	Application Date	Decision Date	Day determined	Cost of Works
DA2020043	101 Riggs Road KINDRED,TAS,7310	Permitted	Residential – (outbuilding – garage)	21/02/2020	6/05/2020	2	\$16,000.00
DA2020073	34 Beach Road ULVERSTONE,TAS,7315	Discretionary	Residential (Retrospective approval – decks to the studio and the first floor of the dwelling)	18/03/2020	20/05/2020	22	\$1,000.00
DA2020076	10 Allport Street West LEITH,TAS,7315	Discretionary	Residential (outbuilding – garage)	20/03/2020	15/05/2020	28	\$18,000.00
DA2020079	14 Mission Hill Road PENGUIN,TAS,7316	Discretionary	Residential (ancillary dwelling, new retaining wall – parapet wall)	24/03/2020	15/05/2020	29	\$40,000.00
DA2020089	Forth Road FORTH,TAS,7310	Discretionary	Residential (dwelling and outbuilding – shed)	3/04/2020	27/05/2020	33	\$220,000.00
DA2020091	41 Bowman Drive PENGUIN,TAS,7316	Discretionary	Residential (dwelling)	6/04/2020	25/05/2020	39	\$450,000.00
DA2020093	34 Bennells Road FORTH,TAS,7310	Discretionary	Residential (dwelling extensions – sunroom and verandahs)	7/04/2020	6/05/2020	21	\$19,000.00
DA2020094	146 A Main Street ULVERSTONE,TAS,7315	Discretionary	Residential (multiple dwellings x three)	7/04/2020	15/05/2020	24	\$750,000.00
DA2020102	1058 Preston Road NORTH MOTTON,TAS,7315	Discretionary	Resource development (farm shed)	20/04/2020	21/05/2020	24	\$40,000.00
DA2020104	U 1/23 Lovett Street U 1/ULVERSTONE,TAS,7315	Permitted	Residential (dwelling extension – sunroom)	21/04/2020	4/05/2020	3	\$8,000.00
DA2020105	12B Seaside Crescent PENGUIN,TAS,7316	Discretionary	Residential (outbuildings – carport and garage)	21/04/2020	22/05/2020	18	\$25,000.00

Central Coast Council
List of Development Applications Determined
Period from: 1 May 2020 to 31 May 2020

Application Number Display	Address	DA Type	Proposed use	Application Date	Decision Date	Day determined	Cost of Works
DA2020109	129 West Ridge Road PENGUIN,TAS,7316	Discretionary	Resource development (farm machinery shed) – use of materials with a reflectance value greater than 40%	23/04/2020	20/05/2020	21	\$10,000.00
DA2020110	603 Forth Road FORTH,TAS,7310	Discretionary	Residential (dwelling extension)	23/04/2020	28/05/2020	23	\$12,000.00
DA2020115	37 Cordell Place TURNERS BEACH,TAS,7315	Discretionary	Residential (retrospective approval outbuilding – shed extension)	30/04/2020	28/05/2020	22	\$1,500.00
DA2020116	Main Road PENGUIN,TAS,7316	Discretionary	Natural and cultural values (upgrades and new retaining walls, rock walls, ramps and stairs), Utilities (minor – upgrades and new shared pathways and widening of Lions Park access road) and Passive recreation (upgrade of car parking area)	30/04/2020	25/05/2020	24	\$6,500,000.00
DA2020118	230 Ironcliffe Road PENGUIN,TAS,7316	Permitted	Residential (dwelling and outbuilding – shed)	1/05/2020	18/05/2020	12	\$240,240.00

SCHEDULE OF STATUTORY DETERMINATIONS MADE UNDER DELEGATION

Period: 1 May 2020 to 31 May 2020

Building Permits – 6

·	New dwellings	2	\$725,000
·	Outbuildings	0	\$0.00
·	Additions/Alterations	3	\$460,000
·	Other	0	\$0.00
·	Units	1	\$310,000

Demolition Permit – 1

Permit of Substantial Compliance – Building – 0

Notifiable Work – Building – 13

·	New dwellings	3	\$680,000
·	Outbuildings	4	\$82,354
·	Additions/Alterations	5	\$107,100
·	Other	1	\$5,000

Building Low Risk Work – 3

Certificate of Likely Compliance – Plumbing – 12

No Permit Required – Plumbing – 7

Food Business registrations (renewals) – 2

Food Business registrations – 0

Temporary Food Business registrations – 0

Temporary 12 month Statewide Food Business Registrations – 0

Public Health Risk Activity Premises Registration – 0

Public Health Risk Activity Operator Licences – 0

Temporary Place of Assembly licences – 0

SCHEDULE OF COMMUNITY SERVICES DETERMINATIONS MADE UNDER DELEGATION

Period: 1 May 2020 to 31 May 2020

Abatement notices issued

ADDRESS

PROPERTY ID

Nil

Kennel Licence issued

ADDRESS

OWNER

Nil

Permits issued under Animal By-Law 1 – 2018

ADDRESS

PERMIT ISSUED FOR

Nil

SCHEDULE OF OTHER STATUTORY RESPONSIBILITIES OF COMMUNITY SERVICES

Period: 1 May to 31 May 2020

Infringement notices issued for Dog Offenses

	1-31 May 2020
Claimed	5
Burnie Dogs Home	0
Destroyed	0
Heldover	3
Devonport Dogs Home	0

Infringements for dogs and impoundments etc.

1 - 31 May 2020	5
-----------------	---

Traffic Infringement Notices for Parking Offences

1 - 31 May 2020	0	
King Edward Street	0	0%
Reibey Street	0	0%
Bannons Car Park	0	0%
North Reibey	0	0%



Ian Stoneman
DIRECTOR ORGANISATIONAL SERVICES

A large, thick, olive green curved shape that starts from the top left, curves around the top and right, and ends at the bottom right, framing the text.

Central Coast Council

Stormwater System Management Plan

June 2020

Document Endorsement	
Responsibility:	<p>It is the responsibility of the Director Infrastructure Services to implement this Plan and review its content with Council.</p> <p>It is the responsibility of the Engineering Group to maintain this document in the corporate document framework.</p>
Minute Reference:	
Council Meeting Date:	22 June 2020
Management Plan Reference:	Ensure assets are adequately developed, maintained and reviewed – Refer to Central Coast Council Asset Management Plan – Drainage
Previous Plan Replaced:	This is the first Stormwater System Management Plan, version 1.0 22 June 2020.
Date of Commencement:	22 June 2020
Publication of Plan:	This plan is publicly available on the Council's website (www.centralcoast.tas.gov.au)

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1. EXECUTIVE SUMMARY

Within the Central Coast municipal area there are seven locations that can be considered “Urban Areas” for the purposes of the *Urban Drainage Act 2013* (the Act).

Under this legislation the Council has an obligation to provide and manage appropriate stormwater reticulation and to manage potential risks associated with stormwater.

The Council has established operational and asset management systems in place to effectively operate the reticulation. There are, however, opportunities to continue to mitigate community risk, improve system operation and support improved environmental outcomes, associated with stormwater.

From a global urban area perspective there are a range of risks that require some form of management or awareness in respect to the natural environment including climate change, sea level rise, landslip, impacts on waterway environments.

There are measures, systems and processes in place to consider and provide for such risks.

Of more significance to our local community are risks that can have a direct impact on residents, their property or business and community infrastructure. Such risks can be assessed on a specific catchment basis and generally relate to:

- . Localised flooding impacting on persons, property and infrastructure.
- . Overland flows.
- . Stream flooding.
- . Riverine flooding.

The purpose of this Stormwater System Management Plan (SSMP) is to provide a high level of understanding of how the Council manages its existing stormwater reticulation, opportunities to improve system management and planning for the future, document risks associated with stormwater and our plans to addresses potential risks to the community.

The SSMP is framed around the Council’s stormwater management objectives.

- . Document infrastructure performance requirements and standards for stormwater assets and communicate to key stakeholders.
- . Fund the maintenance and operation of the stormwater reticulation in accordance with the Council’s stormwater service level documents.
- . Develop the reticulation within the urban areas, to meet user needs for appropriate and safe stormwater disposal.
- . To understand the systems deficiencies and flooding (localised and broader catchment) risks, and possible mitigation measures.
- . Identify priorities for improvement and mitigation activities.

- . Develop a plan to progressively improve waterway environment and water quality in the natural systems impacted by stormwater systems.
- . Communicate the SSMP to stakeholders.

The SSMP has been developed through a review of existing Council records and reports, Officer knowledge of the systems operation, reference to contemporary stormwater management practices and legislation, and flood studies previously carried out.

The outcome is an Action Plan that sets stormwater system management priorities over the next four years.

Key objectives are:

- . Create a “Flood Hazard Layer” on the Council’s Graphical Information System (GIS), to assist in the management of priorities and planning assessments.
- . Where appropriate develop a “Retention/Detention Basin” strategy to assist in the management of the stormwater system and planning assessments.
- . Liaise with the Bureau of Meteorology (BOM) and any other relevant state entities to install two rainfall recording/stream gauging stations on the Leven River.
- . Liaise with the State Government and any other relevant entities regarding flood modelling of the Leven River system.
- . Develop management plans for an integrated approach for the common use of “open space” natural waterways as a joint drainage flow path and natural riverine system.
- . Liaise with the State Government regarding flood modelling of Penguin Creek and Sulphur Creek.
- . Specific systems and process improvement.
- . Review and adjust forward works programs.

Implementation of the actions will require adequate resources to be allocated.

2. BACKGROUND

2.1 GENERAL

The Central Coast Council manages an extensive urban stormwater reticulation network system, within the towns of Ulverstone, Penguin and Turners Beach, and the townships of Forth, Sulphur Creek, Leith, Preservation Bay and Heybridge.

This system comprises:

- . Open waterways (forming part of the urban stormwater system and where utilised within the Urban Drainage Area).
- . Piped systems.
- . Pits and inspection chambers for the capture and conveyance of stormwater.
- . Outfalls.
- . Retention/Detention systems.
- . Gross pollution traps and other such devices.

Outside of the urban area, the Council's role in stormwater management relates primarily to roadside drainage and providing a passage for natural stream and overland flows, where roads intercept.

2.2 WHAT IS STORMWATER?

What is stormwater and why is it important to manage?

The Act, defines stormwater:

"stormwater means run-off water that has been concentrated by means of a drain, surface channel, subsoil drain or formed surface;"

The broad reasons why a council has an interest in stormwater management relate to:

- . The Council facilitates and plans the development of communities. Development can have impacts on the normal water cycle: water courses are diverted, ground water recharge areas are paved over, the quantity and speed of flows to waterways can increase or reduce and the receiving environment can be impacted. Appropriate management of stormwater can assist in mitigating some of these negative impacts on the natural systems.
- . Infrastructure concentrates and collects rain and overland flows to discharge points. This concentration, if not managed, can present a risk through localised and a broader flooding risk, resulting in damage to public or private property and injury to persons. Understanding the nature and performance of stormwater infrastructure, ensuring consistent approaches to design, construction and maintenance, identifying risks and establishing plans to address risks aids in protecting community infrastructure and the residents of the community.

Pollutants (oils, litter, chemicals) and the like accumulate in the urban environment and are washed into stormwater systems. Works in the catchments can result in silt and sediment mobilisation. Ultimately these materials find their way into receiving waters. These materials impact on water quality and the eco system. Opportunities exist to mitigate the impacts of such materials.

In urban environments stormwater systems have developed over time in response to community needs.

The current legislative framework for urban stormwater management is the Act.

Under the Act, the Council is a ***stormwater service provider*** (a council or an agent engaged to act on behalf of the council that operates and maintains the public stormwater system within a municipal area). As such the Council has responsibility for meeting its obligations under the Act.

The Objectives are noted below and reflect the discussion above as to why a council has an interest in managing stormwater:

- a to protect people and property by ensuring that stormwater services, infrastructure and planning are provided so as to minimise the risk of urban flooding due to stormwater flows; and
- b to provide for the safe, environmentally responsible, efficient and sustainable provision of stormwater services in accordance with the objectives of the resource management and planning system of Tasmania.

2.3 REQUIREMENTS OF THE URBAN DRAINAGE ACT 2013.

A specific requirement of the Act is for a council to develop a SSMP.

“10. Stormwater system management plans

(1) A council must develop a stormwater system management plan for the urban area of its municipal area within 6 years after the day on which this Act commences.

(2) A stormwater system management plan is to specify –

(a) plans for the management of any assets used for the delivery of a stormwater service; and

(b) the level of risk from flooding for each urban stormwater catchment in the public stormwater system; and

(c) any other matters prescribed in the regulations or that the council considers appropriate.”

In meeting this obligation, best practise urban stormwater management in Tasmania should aim to develop catchment based SSMPs with consideration given to the following core principles:

- 1 Understand the level of risk in its public stormwater system within the urban area.

- 2 Apply a risk management framework for flood mitigation and stormwater renewal works based on analysis of defined flood events.
- 3 Ensure stormwater systems are planned, designed and built with appropriate consideration of stormwater management principles by making better use of the statutory development and planning system.
- 4 Build resilience and consider climate change impacts to address future demands on the urban stormwater system.
- 5 Integrate stormwater management into the urban water cycle to achieve the goals of social, environmental and economic sustainability.
- 6 Enhance community awareness of, and participation in, the appropriate management of stormwater.

To provide guidance on the framework a SSMP statewide working group, convened by the Local Government Association of Tasmania (LGAT), developed a template “Stormwater System Management Planning– A Guide for Local Government in Tasmania”.

The approach taken by the Council generally follows the approach suggested in the stormwater framework. It is noted that this is the first iteration of the Central Coast Council SSMP and is developed as a starting point for future improvement.

The Central Coast Council SSMP will consider primarily the management of stormwater and how the Council is addressing the various risks associated with stormwater. While environmental matters are touched upon in the SSMP, the setting of specific environmental improvement targets and actions to address the targets are not areas able to be resourced at this point of time. However, they would be the focus of future iterations of the SSMP.

In many respects the SSMP is an aggregation of a range of current Council practices, plans, policies and the like, reflecting the current management arrangements.

3. OVERVIEW OF PLAN CONTENT

The purpose of developing the framework was to support councils in meeting the general requirements of the Act, at a core level.

The framework identifies key elements of a SSMP:

- . An **identification of objectives and outcomes** for management of stormwater in the designated Urban Area/s.
- . A **description of the catchment** to which the SSMP applies, including a definition of the Urban Area.
- . A **description of the existing public stormwater system**, including identification of current condition and ownership of assets where known.
- . An **identification of stormwater management problems and opportunities** for achieving outcomes for public and environmental benefit in the Urban Areas/s.

- . An **identification of strategies** to meet specified management objectives for the Urban Area/s.
- . **Determination of capital and maintenance (including recurring) costs** associated with identified management strategies.
- . An **assessment of the benefits to be derived by implementation** of proposed management strategies.
- . **Prioritisation** of the strategies and a **timeframe** for implementation.
- . **Assignment of responsibilities** for implementing the strategies and meeting any costs.
- . A **communication/consultation strategy** for the SSMP.

This SSMP prepared by the Council addresses the key elements. It is acknowledged that in some areas, particularly in the water quality space, further attention and development is required and will be resourced at a later date.

It is important to note that the development of the framework considered the content of relevant legislation, including:

- . *Urban Drainage Act 2013;*
- . *Local Government Act 1993;*
- . *Local Government By-Laws;*
- . *Local Government (Building and Miscellaneous Provisions) Act 1993;*
- . *Environmental Management & Pollution Control Act 1994;*
- . *Building Act 2016;*
- . *State Policy on Water Quality Management (1997);*
- . *State Stormwater Strategy (2010); and*
- . *Plumbing Regulations 2014 and Building Regulations 2014.*

4. STORMWATER MANAGEMENT OBJECTIVES

In Section 2 of the SSMP the objectives of the Act are reproduced. The objectives are very broad.

Reviewing the nature of the Central Coast Council's current stormwater management practices and current level of development in the provision and management of stormwater infrastructure, specific objectives (which are our current focus) have been identified, being:

- . Document infrastructure performance requirements and standards for stormwater assets and communicate to key stakeholder.
- . Fund the maintenance and operation of the stormwater reticulation in accordance with the Council's stormwater service level documents.

- . Develop the reticulation within the urban areas, to meet user needs for appropriate and safe stormwater disposal.
- . To understand the systems deficiencies and flooding (localised and broader catchment) risks, and possible mitigation measures.
- . Identify priorities for improvement and mitigation activities.
- . Develop a plan to progressively improve waterway environment and water quality in the natural systems impacted by stormwater system
- . Communicate the SSMP.

Achieving these objectives will be a journey that will take some time to complete and it is important that a clear strategy is developed and implemented to guide that journey.

5. DESCRIPTION OF URBAN AREA

The Act specifies that each council must develop a SSMP for the urban areas of its municipal area.

There is no definition of “urban” specified within the Act. The SSMP framework provides some guidance as to potential matters to consider in the establishment of the “Urban Area.”

For the Central Coast, the stormwater infrastructure is included on layers on the GIS. This defines all underground stormwater (lines, pits etc.) and the associated urban drainage catchments. There is a “Council map” complying with Section 12 of the Act, this is available to public.

The catchment areas have been modified over time to reflect those properties that have the potential to access a stormwater system maintained by the Council.

Attached as **Appendix A** are a series of plans which detail the urban areas within the municipal area, and for the purposes of the Act, these are the Urban Areas.

To support urban stormwater planning, urban catchments have been identified. Attached as **Appendix B** are a series of plans identifying the major urban catchments. Some of these catchments have been used for system modeling purposes (Ulverstone East – Buttons Creek and Sulphur Creek – East), where flood studies have been prepared previously (2007 and 2003 respectively), and these studies require updating.

Of the major and moderate rural catchments in the municipal area, only the Forth River has been modelled for flood mitigation purposes.

The urban catchments reflect the downstream “residential” components of the major, moderate and minor stream systems in the urban areas.

The Council does not have a specific management role in respect to the major river systems (Blythe, Leven and Forth) or the moderate riverine systems (Penguin Creek and Claytons Rivulet) or the other minor systems (Heybridge Rivulet, Sulphur Creek, Buttons Creek and local systems). Management rests with the State Government and relevant agencies.

6. DESCRIPTION OF EXISTING STORMWATER ASSETS

There is a record of the Council's stormwater assets managed in the urban areas and the same can be found in the Council's GIS.

In summary the assets are:

Table 6.1 Current Drainage Assets

ASSET CATEGORY	ITEMS
Underground stormwater pipes – various sizes	5627kms
Stormwater inspection chambers	3011
Stormwater pits	2241
Stormwater headwalls incl. outfalls	269
Miscellaneous items	9
TOTAL ASSET REPLACEMENT VALUE – \$47,435,849.21	

The stormwater asset information is recorded in the Councils asset management register.

Work is required to improve the register, to account for in-stream structures such as ponds and dams.

The *Urban Drainage Act* requires that:

“12. Council to maintain maps

A council that provides stormwater services must maintain and make publicly available maps showing all public stormwater systems within the urban area of its municipal area, including those portions of waterways that have a primary role in transporting stormwater.”

This information is recorded on the Council map, which is available to the public for viewing.

Underpinning the Asset Management Plan are various reference and supporting documents including:

- . Central Coast Council Asset Management Policy.
- . Central Coast Council Strategic Asset Management Plan
- . Central Coast Council Drainage Asset Management Plan
- . Relevant industry standards, guidelines and publications.
- . Australian Rainfall and Runoff.

7. IDENTIFICATION OF RISK, ISSUES AND OPPORTUNITIES

This section of the SSMP aims to document matters that are relevant to the Central Coast in the management of the stormwater system in respect to:

- . Risk to the community: current and future impacts.
- . System assets and systems management.
- . Environment and environmental influences.

Which consequently assists in identifying strategies and actions to consider, with the aim being to more effectively manage risk, address issues or explore opportunities.

As this is a strategy document it is not the intent to undertake a detailed exploration of the matters raised nor is the aim to undertake definitive risk assessments, this will occur as the need arises in respect to specific projects, rather the intent it is to ensure that known and potential future issues are acknowledged, current understanding of such matters is documented and the implications of issues in respect to community safety and level of service are considered.

The exploration will be carried out at two levels:

- . System as a whole; and
- . Catchment specific.

7.2 LEVEL OF SERVICE

The Council has not developed specific measurable technical or community levels of service for stormwater services at this point of time. Broad community levels of service are noted in the Council's stormwater asset management plan, as follows:

- . There is an ability to connect their property to the stormwater system.
- . The stormwater system is safe and does not damage the environment.
- . The community's exposure to flooding is minimised and where there is a resident risk, this is communicated.

A Service Level Document details our approach to operational maintenance and management of stormwater infrastructure.

The Council's Subdivision Guidelines, based on the Tasmanian Subdivision Guidelines, identifies specific design standards based upon the function of the stormwater system element. The Planning Scheme only includes relevant planning criteria.

From a technical perspective our aim is to work towards achieving the 1% Annual Exceedance Probability (AEP), flood protection for vulnerable uses, e.g. residences and other key infrastructure, which is equivalent to the older term of 1 in 100-year Annual Recurrence Interval (ARI). Furthermore, for strategic infrastructure such as emergency and community service infrastructure, 0.2% AEP (1 in 500-year ARI), is used on the basis that the additional protection of people is a key consideration.

Minimising impact on commercial and industrial areas and non-critical infrastructure, is also the aim of the Council, however, mitigating strategies need first to be targeted to community safety.

The technical standards applied by the Council in managing the stormwater systems are noted elsewhere in this document.

7.2 THE OVERALL STORMWATER SYSTEM

There are a variety of risks, issues and opportunities that are common across all of the catchments within the urban areas under the Council's management. These relate to the responsibilities of the Council associated with the management of stormwater and the potential impact of uncontrolled stormwaters on other assets, agencies, the environment and community.

Table 7.2 identifies known matters and provides an overview of how such matters are being managed using existing systems, processes, statutory controls and the like, and indicates potential improvement action and strategies for consideration.

The actions and strategies are further explored in **Section 8**.

Table 7.2 Risks, Issues and Opportunities with Mitigation Options and Improvements

Risk, issue or opportunity	Discussion	Risk concerns	Responsible party	Mitigation Options	Potential Improvements
Design Standards	<ul style="list-style-type: none"> · Maintain or improve design standards. · Pipe capacities (AEP). · Communicate design standards and their basis to the community. · Address requirements for retention and/or detention systems. · While accepted industry design standards and methodologies are used by Council there appears to be some latitude in ensuring their compliance with subdivisions. 	<ul style="list-style-type: none"> · Changes in design standards e.g. ARR. · Lack of compliance with established design standards, both internally and externally. · Methodologies or standards presented by external parties that may not provide Council and the community with an optimal outcome. 	CCC	<ul style="list-style-type: none"> · Follow established best practice design standards. · Maintain ongoing professional development. · Regular peer reviews for consistent application of standards and audit all external designs. 	<ul style="list-style-type: none"> · Regular review of industry and subdivision standards by Council.
Subdivision or Development Guidelines	<ul style="list-style-type: none"> · The Tasmanian Subdivision Guidelines for stormwater are very brief, allowing enormous latitude for external design consultants. · AusSpec documents are used as standard design and construction specifications. 	<ul style="list-style-type: none"> · Submission of documentation for development applications incl. engineering drawings that require excessive checking by council not effective use of officer's time. · Lack of preparedness for council to challenge or take 'punitive / litigative' action against external parties does not encourage external professional checking before submission to Council. 	CCC	<ul style="list-style-type: none"> · Review current design standards and ensure compliance with current engineering and industry standards. · Consider adopting other Council Guidelines, even in part, for Subdivisions (even reviewing interstate guidelines). 	<ul style="list-style-type: none"> · Consistent application of standards in assessment of development applications to create community confidence in council and improve standard of submitted documentation.
Resources to Manage Infrastructure Assets	Meeting expected performance standards needs appropriate resources (time, money and personnel) committed to achieve those standards and intervene/remediate in a timely manner.	Gaps in resources and funding results in reduced service life and less than optimal system performance.	CCC	<ul style="list-style-type: none"> · Asset management plan. · Service Levels. · Regular inspection and reporting on existing asset condition. · Protocol to update stormwater systems onto the GIS system. · Allocation of appropriate staffing levels (Stormwater Engineer). 	<ul style="list-style-type: none"> · Establish relevant service level. · Establish regular inspection and reporting on existing asset condition. · Establish protocol to upload stormwater assets onto GIS.

Risk, issue or opportunity	Discussion	Risk concerns	Responsible party	Mitigation Options	Potential Improvements
Climate Change	<ul style="list-style-type: none"> Changes to rainfall patterns, intensities and storm frequencies are noticeable. Storm tide/surge and predicted sea level rise impacts require assessment and mitigation measures. 	<ul style="list-style-type: none"> Current design standards do not reflect prevailing weather patterns. Existing older systems unable to cope. New system performance does not meet desired standard. 	CCC	<ul style="list-style-type: none"> Apply agreed industry design standards and methodologies. Adapt promptly to new and innovative design concepts. Peer reviews. Monitor catchment response for localised issues. 	<ul style="list-style-type: none"> Promptly document system performance and update systems and plans as required. Prioritise improvement work. Review current design AEP's against rainfall patterns and determine any changes to existing AEP's.
Development within Catchments	<ul style="list-style-type: none"> Added development increases system flows. Development may occur on land where streams, riverine flooding and overland flows pre-exist. 	<ul style="list-style-type: none"> Existing system performance may be impacted or compromised. Localised flooding could result. Exposing new residents, property and infrastructure to unnecessary flood risk. 	CCC	<ul style="list-style-type: none"> Individual catchment modelling required to understand impacts of the added development from site on surrounding (upstream and downstream) amenity. Thorough review of submitted designs to meet design criteria. Manage the development approval process. 	<ul style="list-style-type: none"> Develop relevant policy documents. Review and establish the how, when and why detention and/or retention facilities are required. Include inundation / flood mapping in planning schemes. Develop appropriate inundation development controls.
Water Sensitive Urban Design (WSUD)	<ul style="list-style-type: none"> New development increases the risk of pollutant discharge. Necessary to maintain or improve the quality of receiving waters. 	<ul style="list-style-type: none"> Pollutant discharge has an impact on the environment, aquatic life and health and safety. 	State Government and CCC	<ul style="list-style-type: none"> Require pollutant assessments and WSUD measures in development approvals. Adopt or use the Tasmanian Water Sensitive Urban Design guidelines. 	<ul style="list-style-type: none"> Set targets for water quality improvements in waterways and reduce the growth or 'unwanted' vegetation.
Sea Level Rise	<ul style="list-style-type: none"> This is linked to Climate Change. The impacts of sea level rise must be 'accommodated' in new developments, especially outfall structures, treatment structures etc. 	<ul style="list-style-type: none"> Catchment hydraulics impacted. Outfall infrastructure performance impacted. Stormwater assets impacted. 	State Government and CCC	<ul style="list-style-type: none"> Sea level rise is an external influence not controlled by Council. Tasmanian Planning Schemes do include relevant "coastal inundation" and other hazard overlays to guide assessment of potential risks. Hydraulic assessment modelling requires the 	<ul style="list-style-type: none"> Continued awareness of this issue. Acceptance of the relevance and impact of sea level rise.

Risk, issue or opportunity	Discussion	Risk concerns	Responsible party	Mitigation Options	Potential Improvements
				<ul style="list-style-type: none"> inclusion of sea level rise impacts. To be reviewed as part of planned stormwater improvement works. 	
Riverine Flooding	<ul style="list-style-type: none"> Councils have no management responsibility for River management. For the "Urban Area" primary areas of concern are the Leven River, Forth River, Penguin Creek, Sulphur Creek and Claytons Rivulet. 	Riverine flooding impacts on the function and operation of the municipality, especially areas abutting watercourses.	State Government	<ul style="list-style-type: none"> Seek funding for flood modelling of the major waterways in the municipal area initially focussing on the Leven and Forth Rivers. 	<ul style="list-style-type: none"> Continue engagement with State Government to better understand the flooding implications for the Leven River. Investigate flooding implications for Penguin Creek along with investigations of Sulphur Creek and Claytons Rivulet.
Management of Natural Waterways	<ul style="list-style-type: none"> Open waterways form the majority of major flow paths through Urban Areas. Require improvements and regular maintenance of waterways. 	<ul style="list-style-type: none"> Blockages or impediments to flow from build-up of vegetation. Conflict between waterway hydraulics and enhancing natural waterway values. Degraded waterways. 	CCC	<ul style="list-style-type: none"> Develop inspection plans to inspect operations and functions of waterways. Planning scheme protects waterways and requires permits for works (other than maintenance) in waterways. Review of natural values atlas to identify the areas of important natural values that requires protection. 	<ul style="list-style-type: none"> Develop management plans and natural values for all waterways within the scope of Council's responsibilities.
Landslide	<ul style="list-style-type: none"> Some urban areas near Howth; Preservation Bay-Penguin; and Penguin-West Ulverstone are areas of known recent landslide activity. Other urban areas near Sulphur Creek; Penguin, Ulverstone; and Leith-Forth are areas have geotechnical susceptibility (potential for landslide). 	<ul style="list-style-type: none"> Stormwater system become blocked as a result of landslide. Use of onsite 'wastewater' treatment systems can aggravate sub-surface geotechnical stability. 	CCC	<ul style="list-style-type: none"> The Central Coast Planning Scheme includes landslide hazard mapping showing areas of 'risk' requiring management in all phases of development, including stormwater management. Application of relevant planning controls required to mitigate impacts on stormwater. Identify the areas where stormwater infrastructure is missing. 	<ul style="list-style-type: none"> Investigate the potential for landslide impacting on stormwater infrastructure.

Risk, issue or opportunity	Discussion	Risk concerns	Responsible party	Mitigation Options	Potential Improvements
Infrastructure Gaps	<ul style="list-style-type: none"> Need to determine if 'gaps' in the systems exist and how they should be managed. 	<ul style="list-style-type: none"> Inter-allotment surface flows create potential inter-neighbour disagreements requiring Council to resolve. Surcharge flows in extreme events have the potential to cause property damage. 	CCC	<ul style="list-style-type: none"> Identify infrastructure gaps and surcharge paths where concentrated or overland flows impacting downstream. Plumbing controls for new works. 	<ul style="list-style-type: none"> Develop systems or protocol to address or resolve 'gap' issues.
Connection to Stormwater Systems	<ul style="list-style-type: none"> Can all the properties get connected to public Stormwater infrastructure. 	<ul style="list-style-type: none"> Overland stormwater flows between neighbouring properties. 	CCC	<ul style="list-style-type: none"> Consistently implement the '30 metre connection criteria', consider increasing the distance to 50m or 100m. 	<ul style="list-style-type: none"> Develop a system or protocol to address or manage properties not connected to public infrastructure. Identify the properties that cannot connect to the network.
Cross Connection of Infrastructure Types	<ul style="list-style-type: none"> It is possible that the interconnection between stormwater and sewer exists. 	<ul style="list-style-type: none"> Likely impact on the performance of the reticulated sewer network and sewer treatment plants. Health risks as a result of potential sewer spills. 	CCC/TasWater	<ul style="list-style-type: none"> Work in collaboration with TasWater to reduce the number of illegal connections. 	<ul style="list-style-type: none"> Prepare list or table of known 'illegal' connections and forward to TasWater.
Condition of Existing System	<ul style="list-style-type: none"> Asset performance is managed by having appropriate inspection/monitoring programs in place to optimise life cycle and replacement costs. 	<ul style="list-style-type: none"> Asset life is not achieved. Cost to the community of replacing or upgrading infrastructure due to failure or reduced life. 	CCC	<ul style="list-style-type: none"> Condition assessment is critical as system is 'out of sight' and CCTV assessment OR a percentage random annual inspection system is required to diagnose potential unknown issues. The Drainage AMP should detail management and condition inspection programs. 	<ul style="list-style-type: none"> Establish a nominal budget for the regular monitoring and inspection of the stormwater system. Where possible modern and non- invasive methods should be utilised. Regular monitoring and inspection program (to include all stormwater assets)
Urban Area Flood Mapping	<ul style="list-style-type: none"> Flood mapping has only occurred for the Forth River system. Other riverine systems (Leven R; Penguin Ck; Sulphur Ck; Claytons Rivulet) would benefit from flood or hydraulic assessments. 	<ul style="list-style-type: none"> Risk to life, property and community assets not known with the lack of modelling (reliant on anecdotal evidence or when an extreme event occurs). Known urban areas in Ulverstone, Turners Beach, Penguin and Sulphur Creek 	CCC	<ul style="list-style-type: none"> Known flood information included in the GIS system. A GIS 'layer' under Drainage for known or new 'hot spots' that cause disruption and inconvenience to the community would be a benefit. 	<ul style="list-style-type: none"> Fund a high order flood modelling assessment of the Leven River. Fund lower order hydraulic assessments of Penguin Ck; Sulphur Ck and Claytons Rivulet. Establish a GIS 'layer' in Drainage for known and

Risk, issue or opportunity	Discussion	Risk concerns	Responsible party	Mitigation Options	Potential Improvements
	<ul style="list-style-type: none"> 1% AEP envelope on GIS does not match the 2014 Entura Forth River results. 2007 flood study of Buttons Creek not on GIS. Anomaly between 1% and 0.5% AEP flood mapping in Turners Beach. 	susceptible to inundation in extreme events e.g. 2011 and 2016 floods.		<ul style="list-style-type: none"> Modelled flood results can be used as development controls to achieve optimal outcomes and prevent unnecessary risk to the residential, commercial and industrial community (people, property and assets). 	<ul style="list-style-type: none"> new 'hot spots' for community benefit and for a council investigation and rectification program. Use flood modelling results to develop a set of development controls for future developments. Address anomaly in the flood mapping results in Turners Beach.
Asset Service Areas	<ul style="list-style-type: none"> There is no designated stormwater serviced land area as there is for water and sewer, only drainage catchments. 	There is no apparent alignment between drainage catchments and the possible/likely 'urban area'. This causes inconsistencies and possible community and/or developer confusion.	CCC	<ul style="list-style-type: none"> Review land zonings and drainage catchments to create certainty and consistency. Consider the concept of a stormwater serviced area (similar to water and sewer). Update GIS after the above review of zonings and catchments. Some drainage catchments are missing from the GIS. 	<ul style="list-style-type: none"> Update GIS after the review of zonings and drainage catchments. Include the missing drainage catchments on the GIS. Consider a stormwater service area policy.
Water Quality	<ul style="list-style-type: none"> The trunk drainage system consists of underground pipe networks, existing natural waterways and constructed open drains. This system conveys stormwater to the Bass Strait. Natural waterways change as part of the geomorphological process and development modifications. Remnant vegetation remains and other vegetation infestations grow as the result of pollutant runoff (silt, sediment, irrigation systems and fertilising residential land and public open spaces). 	<p>Poor or reduced water quality impacts natural systems, and the supporting flora and fauna is often lost.</p> <p>Impacts on aquatic life and human health.</p> <p>Also impacts on the passive use of natural waterway systems for recreation, increasing the need for irrigation.</p> <p>Degraded systems more likely to catch or retain litter and contaminants.</p>	CCC and State Government	<ul style="list-style-type: none"> Any previous work to restore degraded sections of natural waterways? Some GPTs installed at outlets of known litter and contaminant trails. GPTs are not as effective at reducing suspended contaminant as previously expected. Flood studies use the natural topographical conditions in their analysis and are generally focussed on 'structural' or 'non-structural' solutions for flow or discharge management, rather than environmental benefit. 	<ul style="list-style-type: none"> Develop a regular audit program of natural waterways to understand their conditions and to program necessary improvements. Consider the establishment of a water quality monitoring program, initially on a trial basis, with a commitment to a formal regular monitoring, assessment and water quality improvement program. Develop a stabilisation and improvement program for natural waterways, while

Risk, issue or opportunity	Discussion	Risk concerns	Responsible party	Mitigation Options	Potential Improvements
	<ul style="list-style-type: none"> Natural systems are also degraded as the result of constructed infrastructure. 			<ul style="list-style-type: none"> The State Stormwater Strategy focuses on water quality and councils need to align their vision, mission and strategies to address water quality improvements as a priority. 	<ul style="list-style-type: none"> concurrently maintaining the desired stormwater management and discharge function of these waterways. Investigate the impacts of where natural waterways crossroads and streets and improve the hydraulic efficiency of drainage structures. Adopt WSUD guidelines and ultimately prepare a Council specific guideline.
Urban Area	<ul style="list-style-type: none"> There is no real delineated/designated urban area/footprint in the municipality. No definition of 'urban area' in CCC Planning Scheme as it relates to the Act. A designated area will benefit growth projections, allow the development of relevant planning controls and create community spirit in the smaller coastal communities. 	<ul style="list-style-type: none"> Urban development proposals outside of current 'preferred' urban areas creates unnecessary costs for infrastructure by Council. Inappropriate development sets precedents that could be difficult to defend. 	CCC	<ul style="list-style-type: none"> Limit conventional residential development to current zoned areas or areas that are close to existing serviced infrastructure where the developer funds infrastructure connection. 	<ul style="list-style-type: none"> Investigate the correlation between 'Urban Area' as defined under the Act compared with 'General Residential Zone' under the planning scheme.
Network Hydraulic Model	<ul style="list-style-type: none"> Development of an overall network hydraulic model assists in future planning and supports the decision-making process for future new developments or changes to existing development. 	<ul style="list-style-type: none"> Current lack of base data flood information available in the review and assessment of development applications. Some development designs do not adequately address the flooding impacts beyond the development both upstream and downstream. 	State Government and CCC	<ul style="list-style-type: none"> Older flood modelling or hydraulic assessment has occurred for some waterway systems. Further flood or hydraulic assessments need completing to understand the impacts and risk from flooding. 	<ul style="list-style-type: none"> Existing residential areas are protected in the event of an extreme event. Appropriate planning assessments can be completed with a higher confidence to mitigate risk.
Retention and/or Detention Code or Policy	<ul style="list-style-type: none"> Development generally increases the volume of runoff from a site due to an increased impervious area. The volume of flow in an extreme event cannot be 	<ul style="list-style-type: none"> Increases the risk of flooding to abutting downstream and upstream properties. Limited guidance for developers or consultants. 	CCC	<ul style="list-style-type: none"> Prepare a council specific retention / detention code or policy or guideline. 	<ul style="list-style-type: none"> Initially adopt an approach based on limiting stormwater discharge to the equivalent rate based on either the allowable impervious area under

Risk, issue or opportunity	Discussion	Risk concerns	Responsible party	Mitigation Options	Potential Improvements
	<p>contained within the underground system.</p> <p>Either onsite, or outside of site, capacity must be provided to temporarily store the excess volume of runoff.</p>				<p>the planning scheme or impervious area assumed in the stormwater network, whichever is the lesser discharge rate.</p> <p>Regular review of Retention / Detention guidelines.</p>

7.3 CATCHMENTS

Within the urban area there are a number of discrete catchments that can be identified from a stormwater management perspective.

In essence each of the catchments are self-contained stormwater systems, that can be defined by geographic features, generally ridge lines and valleys, as noted in *Section 5* and illustrated on the plans attached as *Appendix B*.

In this section we discuss more fully how the risk of flooding is managed, or proposed to be managed in each of the catchments, and actions required to be progressed to mitigate flood risk. *Table 7.3* below details the various urban catchments and their issues, limitations and potential improvements.

Flood in the context of the catchment will consider:

- . Stream flooding: individual catchments.
- . Overland flows.
- . Localised flooding.

Table 7.3 Urban Catchments and their Flood Issues, Infrastructure Limitations and Potential Improvements.

Catchment	Description	Flood Study or Hydraulic Assessment	Flooding issues	Infrastructure and Infrastructure Limitations	Potential Improvements
Turners Beach North (TBN A to F)	Catchment 0.60km ² . Fully piped network. Claytons Rivulet to the west.	No flood study completed. No present need for study. Outfalls to Forth River, Bass Strait and Claytons Rivulet.	Localised flooding at western end and in the central to eastern end.	West end – impacts from Claytons Rivulet. East end – impacts from Forth River. Existing detention system at the western end of Turners Avenue.	Documentation of known issues. Identify Service Levels.
Turners Beach South (TBS G to M)	Catchment 0.77km ² . Fully piped network. Claytons Rivulet to the west.	No flood study completed. No present need for study. Outlets to Claytons Rivulet and Forth River floodplain.	Claytons Rivulet overtops Westella Dr and Bass Hwy in extreme events. Inundation into floodplain on west side of Forth River.	TasWater sewer treatment ponds at risk of inundation. Investigation into Claytons rivulet crossing of Westella Dr and Bass Hwy warranted.	Overtopping requires documentation. Investigate the option for detention storage upstream of Bass Highway. Identify Service Levels.
Leith (LE A to C)	Catchment 0.34 km ² . Some piped network.	No flood study completed. No present need for study. Outlets to Forth River.	No specific flooding issues identified in this small catchment.	No known infrastructure issues in catchment.	Maintenance of outfall near Allport street West. Identify Service Levels.
Forth East (FO E)	Catchment 0.19 km ² . Small pipe network.	Forth River flood study 2014. Outfalls to Forth River.	Inundation into floodplain on the eastern side of the river. Considerable commercial impacts.	Existing levee systems are estimated to be overtopped in the 1% AEP event on both sides of river.	Consider whether some of the 2014 report recommendations have economic benefit and can be justified through a BCR process. Identify Service Levels.
Forth West (FO W)	Catchment 0.22 km ² . More extensive piped network than east side.	Forth River flood study 2014. Outfalls to Forth River.	Inundation into floodplain on the western side of the river. Some residential impact and extensive commercial impacts on this side.	Existing levee systems are estimated to be overtopped in the 1% AEP event on both sides of river.	Consider whether some of the 2014 report recommendations have economic benefit and can be justified through a BCR process. Identify Service Levels.
Ulverstone East - Buttons Creek (ULV I to N, Q, R and ULV MM)	Catchment 3.33km ² . Fully piped network. Buttons Creek waterway.	2007 HECRAS assessment of Buttons Creek. Needs updating. Outfalls to Bass Strait	Isolated flooding issues. Fairway Park and outfall through park to Bass Strait.	Some inundation into the end of Smith Street; the open area off McCulloch Street (and the impacts on 14 Cornelia St); impacting 26 & 28 Parsons Street; surcharge issues along Beach Road north of the industrial area; possible vegetation blockages at Alexander Rd crossing of Buttons Ck.	Review of 2007 HECRAS assessment to confirm the impacts from the 1% AEP event. Identify Service Levels.
Ulverstone Central – Leven/Gawler Rivers. (ULV H, O, P, S, new U, new W, X)	Catchment 3.26km ² . Fully piped network. Leven and Gawler Rivers and Masons Creek waterway.	No flood study completed. Outfalls to Leven and Gawler Rivers.	Localised flooding issues. In Shropshire Park and south end of Ulverstone High School.	No specific issues noted, but hydraulic assessment will provide level of confidence and establish community guidance and development flood controls.	Documentation of known issues. Flood study strongly recommended for Leven and Gawler River system. Installation of two rainfall and river gauging stations recommended on Leven River. Identify Service Levels.

Catchment	Description	Flood Study or Hydraulic Assessment	Flooding issues	Infrastructure and Infrastructure Limitations	Potential Improvements
Ulverstone West – Leven River. (ULV A to E, AA, BB and ULV DD)	Catchment 3.62km ² . Fully piped network. Unnamed waterways. Leven River.	No flood study completed. Outfalls to Leven River and Bass Strait.	Localised flooding issues along Josephine Street; perceived issues south off Westland Drive; and some outfalls block regularly.	Outfalls from Maud and Bertha Streets suffer from consistent blockage at outlet causing localised flooding issues upstream. Outfall from Amy and Josephine Streets are also an issue.	Regular inspection and maintenance of Maud and Bertha Street outfalls. Flood study strongly recommended for Leven and Gawler River system. Installation of two rainfall and river gauging stations recommended on Leven River. Possibly extend Bertha Street outfall to prevent sand and silt blockage. Identify Service Levels.
Penguin South – Myrtle Creek. (PEN G to M)	Catchment 3.63km ² . Some piped network. Myrtle Creek waterway.	No flood study completed. Outfalls to east into the Leven River.	Localised flooding through Golf Course and U/S of the Dial Rd culvert.	No specific issues noted.	Documentation of known issues. Hydraulic assessment recommended for Penguin Creek. Check the capacity for the culvert. Identify Service Levels.
Penguin North – Penguin Creek, Deviation Creek (PEN A to F)	Catchment 2.41km ² . Piped network. Penguin Creek waterway.	No flood study completed. Outfalls to Bass Strait.	Extensive flooding of properties – Crescent St; Hayward St; Killara Ave; Carroo Ct; Howe Lane. Coroneagh Park Aged Person Facility at risk of inundation.	Playground facilities and carpark in Hiscott Park inundated. Sections of Hayward St; Killara Ave; Carroo Ct and Howe Lane inundated. Culvert under Main Road.	Documentation of known issues. Hydraulic assessment recommended for Penguin Creek. Investigation of possible detention storage upstream (just south of Bass Hwy or upstream of Bass Hwy). Investigation of culvert capacity under Main Road warranted, and possible vegetation blockage in waterway may need clearing. Identify Service Levels.
Preservation Bay (PB 1)	Catchment 0.05km ² . Small piped network. Small unnamed waterways.	No flood study completed. No present need for study. Outlets to Bass Strait.	No specific flooding issues identified in this catchment.	No specific issues noted.	Documentation of known issues. Identify Service Levels.
Sulphur Creek East – Sulphur Creek (SC G to K)	Catchment 0.43km ² . Piped network. Sulphur Creek waterway.	Flood study completed in 2003 as a part of a development application. Outfalls to Bass Strait.	System discharging just west of Sulphur Creek Point an issue. No apparent evidence of inundation in 2011 and 2016 on properties both sides of Sulphur Creek. Needs to be 'modelled' to have no or low risk to property to support known or anecdotal evidence. Need to confirm no flood risk	No known infrastructure issues in catchment.	Documentation of known issues. Vegetation clearing of waterway may be warranted (between Preservation Dr and Bass Hwy). Investigation of possible detention storage upstream of Bass Hwy warranted. Concern about the restricted waterway channel to cater for the 1% AEP event. Further hydraulic assessment recommended for Sulphur Creek.

Catchment	Description	Flood Study or Hydraulic Assessment	Flooding issues	Infrastructure and Infrastructure Limitations	Potential Improvements
			to properties at 250 and 254 Preservation Drive.		Identify Service Levels.
Sulphur Creek West – Ellis Creek (SC A to F)	Catchment 0.33km ² . Piped network. Ellis Creek waterway.	No flood study completed. No present need for study. Outlets to Bass Strait.	No specific flooding issues identified in this catchment.	No specific issues noted.	Identify Service Levels.
Heybridge East – Lings Creek (HB F to H)	Catchment 0.23km ² . Small piped networks. Lings Creek waterway.	No flood study completed. No present need for study. Outlets to Bass Strait.	No specific flooding issues identified in this catchment.	No specific issues noted.	Identify Service Levels.
Heybridge West – Cuprona Rd (HB A to E)	Catchment 0.31km ² . Piped network. Unnamed small waterways.	No flood study completed. No present need for study. Outlets to Blythe River.	Localised surcharge issues in Cuprona Rd. No other specific flooding issues identified in this catchment.	No specific flooding issues identified in this catchment.	Documentation of known issues. Identify Service Levels.

7.4 RISK ASSESSMENT

The preceding sections have provided an understanding of what we know about the Central Coast stormwater systems, identified potential actions and undertakings to address community risk, improve system performance and support improved environmental outcomes.

Broadly actions identified can be grouped under the following headings:

- . Operational management and management improvements.
- . Flooding including hotspot management.
- . Development impacts.
- . Environmental management.

A focus of the SSMP is risk management and understanding the relative risk of the issues and impact of the implementation of the proposed action/s will aid in prioritising actions and projects.

A basic risk assessment applying Council's risk management framework was undertaken and is included as **Table 7.4** below.

The framework notes seven risk categories. For the purpose of this exercise there is a focus on the assets and infrastructure, and public safety categories but this is not to suggest that the other risk categories are less important or relevant. Generally, there will be alignment across many of the risk categories in respect to risk scoring. The risk assessment has been applied to the matters raised above, which would have apparent risk implications if not managed.

The output from the risk assessment will be included in the corporate risk register, and the risk rating used to assign a priority to projects listed in the action plan.

Table 7.4 Risk Assessment

Risk Assessment											
Risk Category	Responsible Officer	Risk Issue	Consequence	Inherent Assessment			Treatment	Residual Risk after Treatment			Notes
				Likelihood	Consequence	Risk		Likelihood	Consequence	Risk	
Public Safety / Assets and Infrastructure	Director Infrastructure Services	Management and design processes do not reflect current practice.	Service level expectations not met. Required infrastructure capacity for new and upgrade work not to an appropriate standard.	Possible	Minor	Moderate	Staff training, periodic review of design process and policies.	Unlikely	Minor	Low	Service levels for stormwater need to be more comprehensive than based on community surveys only.
Public Safety / Assets and Infrastructure	Director Infrastructure Services	Development impacts on existing system performance.	System capacity issues. New incidences of local flooding. Damage to infrastructure.	Possible	Minor	Moderate	Develop a policy to guide system management for new subdivisions, e.g. detention/retention, augmentation, upgrades etc. and the impact on the capacity on downstream smaller systems.	Unlikely	Minor	Low	System capacity issues occur in existing systems designed/built to older standards OR when new upstream systems are designed/built to current standards and connect to a smaller sized downstream system.
Public Safety / Assets and Infrastructure	Director Infrastructure Services and Director Community Services	Development within areas of inundation.	Flood impact on new properties. Insurance claims and possible claims against Council.	Possible	Moderate	Moderate	Development controls and associated flood hazard maps in scheme that provide accurate and specific guidelines on encroachment into known or likely inundation areas.	Unlikely	Minor	Low	Current 1% and 0.5% AEP (1 in 100 year and 1 in 200-year ARI) layers on the GIS do not reflect the outcomes of the 2014 Entura Forth River Flood Report. Older flood assessment reports for Buttons Creek (August 2007) and Sulphur Creek (April 2003) have not been added to the GIS to cover potential development in those areas.
Public Safety / Assets and Infrastructure	Director Infrastructure Services	Waterway / flora and fauna health impacts due to use as drainage systems	Eco system is damaged. Poor water quality. Likely community complaint about the aesthetic of the waterways. Potential impact on use of recreational waters.	Likely	Moderate	High	Develop waterway management plans that recognise the integrated nature or balance of drainage systems and natural waterway ecology.	Unlikely to Possible	Minor	Low to Moderate	Environmental issues need to take a higher priority when a joint use as a drainage flow path and natural waterway occurs.

Public Safety / Assets and Infrastructure	Director Infrastructure Services	Cross connections between sewer and stormwater create public health issues	Stormwater impacts on operation of the sewerage. Sewage enters waterways and impact on water quality	Likely	Minor	Moderate	Work with TasWater. Provide details of past investigations to support TasWater. Infill drainage works as per gap analysis.	Possible	Minor	Moderate	Future works programs could address this over time. Where these connections occur illegally, Council should pursue to disconnection themselves after advice to the owner.
Public Safety / Assets and Infrastructure	Director Infrastructure Services	Service area maps do not reflect infrastructure provision	Not all the properties are provided with Stormwater connection	Possible	Minor	Moderate	Create a Service area map	Unlikely	Minor	Low	Central Coast does not have stormwater service areas, although a Drainage Catchment Area layer is included on the GIS under 'Waterways'.
Public Safety / Assets and Infrastructure	Director Infrastructure Services	Hot spot management and identification	Inattention to hotspots will result in localised flooding and potential damage to infrastructure	Possible	Minor to Moderate	Moderate	Identify and document hot spot flooding areas. Establish maintenance regimes to monitor and upgrade as required to maintain low or no flood risk.	Unlikely	Minor	Low	Monitor 'hot spot' list, update and provide report to Director Infrastructure Services annually.
Public Safety / Assets and Infrastructure	Director Infrastructure Services	Forth River flooding	Properties and commercial operations along Forth River are inundated. Consequential loss and damage, social and environmental impacts. Some council infrastructure at risk of inundation. Probable health and safety issues and consequences.	Possible	Major	High	GIS layers are not consistent with the results of the 2014 Entura Forth River flood Study. Update 1% and 0.5% AEP (1 in 100 year and 1 in 200-year ARI) layers for Forth River on the GIS. Reconsider some of the recommendations of the 2014 Entura Forth River Flood Study.	Unlikely	Moderate	Moderate	Latest flood extents provide council, consultants, developers and the community the most accurate information available.
Public Safety / Assets and Infrastructure	Director Infrastructure Services	Leven River flooding	Properties in West Ulverstone may be at risk of flooding. Probable consequential loss and damage	Possible	Minor to Moderate	Moderate	Seek funding from State Government for a flood study on the Leven River. Engage consultants to complete the flood study and consider the recommendations for implementation.	Unlikely	Minor	Low	This study will provide good development controls for new development or re-development abutting the river and provide guidance to developers and consultants. Risk not likely to reduce until flood report received and recommendations can be considered. The risk and likelihood shown in the adjacent columns represent the predictions after any recommendations are implemented.

Public Safety / Assets and Infrastructure	Director Infrastructure Services	Penguin Creek flooding	Properties and commercial operations abutting Penguin Creek (Bass Highway to coast) are inundated. Consequential loss and damage, social and environmental impacts. Some council playground infrastructure at risk of inundation.	Possible	Moderate to Major	Moderate to High	Seek advice from State Government on flood study for Penguin Creek. Engage consultants to complete the flood study and consider the recommendations for implementation.	Unlikely	Minor to Moderate	Low to Moderate	2D modelling software required.
Public Safety / Assets and Infrastructure	Director Infrastructure Services	Claytons Rivulet flooding	Properties and council infrastructure are inundated. Consequential loss and damage, social and environmental impacts.	Possible	Moderate	Moderate	Implement a flood study for Claytons Rivulet catchment using current IFD and rainfall data and current modelling methods.	Unlikely	Minor	Low	Risk not likely to reduce until flood report received and recommendations can be considered. The risk and likelihood shown in the adjacent columns represent the predictions after any recommendations are implemented.
Public Safety / Assets and Infrastructure	Director Infrastructure Services	Sulphur Creek flooding	Potential impacts on properties abutting Sulphur Creek. Probable risk of loss and damage. Known instances of flooding due to surcharge flows.	Possible	Minor to Moderate	Moderate	Implement a flood study for Sulphur Creek catchment using current IFD and rainfall data and current modelling methods.	Unlikely	Minor	Low	An August 2003 Sulphur Creek Subdivision Hydraulic Report by Pitt & Sherry using HECRAS generated Flood Study limits (SUB2002.31). Risk not likely to reduce until flood report received and recommendations can be considered. The risk and likelihood shown in the adjacent columns represent the predictions after any recommendations are implemented.
Public Safety / Assets and Infrastructure	Director Infrastructure Services	Buttons Creek flooding	Potential impacts on some properties.	Possible	Minor	Moderate	Update the 2007 study using current IFD and rainfall data and modelling methods.	Unlikely	Minor	Low	A May 2007 Flood Hazard Report by Pitt & Sherry produced flood limits using a HECRAS analysis (D9524/D06225d2003). Upload the 2007 study flood limits onto the GIS as an interim flood layer, pending a future flooding review.

Public Safety / Assets and Infrastructure	Director Community Services	Lack of environmental protection to natural waterway systems	Crown land or riparian buffers are not established along waterways to allow for the natural geomorphological movement of river systems.	Almost certain	Moderate to Major	High to Very High	Ensure the requirements of E10 Water and Waterways Code is achieved in both intentional and practical terms. The use of "stormwater reserves" where natural freshwater waterways pass through a development footprint, or where a development abuts a natural waterway, should be given strong consideration, with a lawful point of access from both ends of the "reserve". Optionally, "easements" in the rear of lots where they abut waterways (freshwater or saline) could be considered with appropriate easement documents and lawful access rights for Council to enter and maintain waterways, as necessary. These "easements" would be designated 'non-developable' zones on the lot.	Possible	Minor	Moderate	Central Coast Interim Planning Scheme in the Water and Waterways Code Section E10.2 and E10.6 specifies the application and development standards for development use abutting a waterway. There appear to be anecdotal evidence that (1) this 'use free' zone is sometimes not provided by developers and (2) if it is, there is no lawful point of access provided to such a "buffer". The importance of crown land or "residential free use land" abutting waterways is critical to the natural riverine process and to provide appropriate environmental and erosion buffers. Where developed land lots immediately abut the waterway, often landowners 'denude' the riverine vegetation which puts the bank at risk of erosion and impacts the balance of aquatic life.
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8. IDENTIFICATION OF STRATEGIES AND OUTCOMES

Within the Council there is a mature understanding of stormwater asset management, design, construction and operational management. This is supported by appropriate operational resources and funding.

The Council in recent years have been focused on understanding the source of a number of flood incidents that have occurred and identifying opportunities to mitigate the extent and impact of flooding.

This is evidenced in the flood mitigation works identified for implementation and those already completed.

As noted in the preceding sections, further work is required in this space.

Through the discussion and risk assessments in *Section 7* above, various specific actions were identified related to works implementation, flood studies and the like, with a more strategic focus.

Matters related to improvements to internal processes, information capture and communication were also noted, and in most instances existing administrative arrangements will allow these matters to be addressed over time, as noted in the discussion section.

An Action Plan has been prepared to capture those specific tasks that will require focus and resource.

It is suggested that overall priorities for management of the urban stormwater systems are (in order of importance).

- 1 Quantifying flood risk in all urban catchments.
- 2 Identifying and implementing flood mitigations strategies.
- 3 Communicating / educating the community.
- 4 Systems and process improvements and knowledge capture management regimes.
- 5 Waterway environment and water quality.

It is acknowledged that others may consider that waterway environment and water quality are important matters for the Council to consider and on which to focus its efforts. However, from a broad community perspective protection of people and property from flood risk, which has the potential to be managed or mitigated, is the priority focus area for the Council at this point in time.

Future iterations of the SSMP will focus on waterway environment and water quality improvements.

8.1 ACTION PLAN

The Action Plan noted below in *Table 8.1* documents the key matters which the Council wishes to address within the life of this plan.

Table 8.1 Action Plan

Action/Strategy	Scope	Benefit	Priority	Cost	Funding Source	Timeline	Responsibility
Modelling of Urban Catchments.	Importation of drainage network data including some survey of existing infrastructure where required.	Knowledge of the pipe network, capacity issues and hotspot areas	High	Staff time only	CCC	2020-2021 FY	CCC
Add the results of the Buttons Creek Flood Hazard Report 2007 and the Sulphur Creek Flood Study 2003 to the Flood layer in GIS.	Add the flood extents for Buttons Creek and Sulphur Creek to the GIS as interim flood extents.	Improved understanding of flood risk in both creek systems. Part of a total flood map for the municipal area.	High	Staff time only	CCC	2020-2021 FY	CCC
Update 1% AEP (1 in 100-year ARI) layers on the GIS.	Replace existing flood extents on GIS with updated information from the 2020 Entura study.	Accurate and current information Community knowledge.	Low	Staff time only	CCC	2020-2021 FY	CCC
Flood study of Claytons Rivulet.	Identify extent of flooding, properties at risk and mitigation strategies.	Understand the extent of flooding in Turners Beach west Part of a total flood map for the municipal area.	High	Estimated \$60,000 (External) Some staff time	CCC	2021-2022 FY	CCC – primary role
Develop a retention/detention service level.	Work to develop or adopt a retention and detention basin policy for use by internal and external parties.	Guidance for developers and consultants where these infrastructure assets are required.	High	By adopting the ARRB "Guide to Road Design Part 5A" in the interim. Significant staff time.	CCC	2021-2022 FY	CCC
Develop a Water Sensitive Urban Design (WSUD) guideline.	Work to develop or adopt a water sensitive urban design policy for use by internal and external parties.	Guidance for developers and consultants where these infrastructure assets are required. Protection of natural waterways and water bodies against pollutant load discharge.	High	By adopting the Tasmanian WSUD document in the interim cost is minimal. Preparing a specific CCC document estimated at \$15,000.	CCC	2021-2022 FY	CCC
Develop management plans for an integrated approach for the common use of 'open space' land as both a drainage system and a natural waterway.	Work to develop a policy for 'open space' areas were joint use as a drainage path and natural waterway system occurs.	Guidance for Council staff, the community and developers. Provides environmental protection for natural waterway systems.	Medium	Some staff time	CCC	2022-2023 FY	CCC

Action/Strategy	Scope	Benefit	Priority	Cost	Funding Source	Timeline	Responsibility
Establish annual monitoring and updating of 'hot spot' log and report to Director Infrastructure Services annually.	Include known 'hot spots' in a monitor log and add new sites and issues as they are found. Report to Director.	For use in prioritising improvement works to reduce risk to community.	Medium	Some staff time	CCC	Ongoing	CCC
Installation of two rainfall recording/river gauging stations in the Leven River catchment.	<ul style="list-style-type: none"> Install two rainfall recording/river gauging stations on the Leven River. May work in collaboration with BOM and State Government. 	Used for reporting rainfall in catchment and provide alerts to downstream urban areas in an extreme event.	Medium	Estimated \$30,000	CCC and DSG and BOM	2022-2023 FY	CCC in partnership with BOM and State Government.
Comprehensive flood study of the Leven River catchment (including all tributaries).	<ul style="list-style-type: none"> Understand the extent and impacts of flooding in the Leven River. May work in collaboration with BOM and State Government. 	Community preparedness. Warning of potential flooding Part of a total flood map for the municipal area.	Medium	Estimated \$100,000 (External) Significant staff time.	CCC and DSG	2022-2023 FY	CCC in partnership with State Government
Flood study of Penguin Creek.	<ul style="list-style-type: none"> Understand the extent and impacts of flooding in Penguin Creek. May work in collaboration with BOM and State Government. 	Community preparedness. Warning of potential flooding Part of a total flood map for the municipal area. Develop mitigation strategies for impacted areas.	Medium	Estimated \$60,000 (External) Some staff time.	CCC with possible DSG assistance	2022-2023 FY	CCC – primary role (consider Government grant)
Flood study of Sulphur Creek.	Identify extent of flooding, properties at risk and mitigation strategies. <ul style="list-style-type: none"> May work in collaboration with BOM and State Government. 	Understand the extent of flooding in Sulphur Creek. Part of a total flood map for the municipal area.	Medium	Estimated \$40,000 (External) Some staff time	CCC	2022-2023 FY	CCC – primary role (consider Government grant)
Consistently use the provisions of E10 Water and Waterways Code, supported by changes to include/adopt "reserves" and/or "easements", and require the provision of lawful points of access to these 'buffer' zones.	Work to apply consistency in assessing developments abutting waterways and provide accessible 'buffer' areas of public benefit and for environmental protection.	Protect the banks and riverine areas abutting waterways against erosion and vegetation clearing.	Medium	Staff time only.	CCC	2022-2023 FY	CCC
Need to develop a Levels of Service for Stormwater/Drainage infrastructure within Central Coast.	Work to improve and clarify the standard for providing an effective and efficient stormwater network.	Identify parts of the network system requiring replacement or augmentation.	Low	Staff time only	CCC	2023-2024 FY	CCC
Establish a protocol or policy to condition a contribution from upstream developers where their development will have a hydraulic impact on	Work to establish a protocol and contribution system where development sites could cause flooding on upstream and downstream properties/land.	Guidance to developers and consultants. Protection to existing residential amenity.	Low	Staff time only	CCC	2023-2024 FY	CCC

Action/Strategy	Scope	Benefit	Priority	Cost	Funding Source	Timeline	Responsibility
the existing downstream system.		Reduces imposition on Council to fund or install stormwater systems to resolve post development issues.					
Regular annual update of 'Drainage Line' and 'Drainage Catchment Area' layers on GIS.	Add new stormwater systems to the GIS annually.	Up to date and accurate stormwater network in Council records.	Low	Staff time only	CCC	Ongoing	CCC
Flood study of Buttons Creek.	Identify extent of flooding, properties at risk and mitigation strategies.	Understand the extent of flooding in Buttons Creek. Part of a total flood map for the municipal area.	Low	Estimated at \$40,000 (External) Some staff time	CCC	2023-2024 FY	CCC – primary role (consider Government grant)
Establish a log of "illegal" connections and update Council and TasWater as CCC is notified.	Collate and report on "illegal" connections to Council and TasWater.	Reduce contamination in the stormwater network. Reduce water load in sewage treatment plant.	Very low	Staff time only	CCC	Ongoing	CCC in partnership with TasWater

8.2 Specific System and Process Improvements

Specific system and process improvements noted for action are shown in **Table 8.2** below:

Table 8.2 Specific System and Process Improvements

Specific system and process improvements noted for action are:

Systems and Processes	Benefits	Responsibility	Timeline
Review ARI/AEP set for storm events against the catchment responses and climate change impacts. Determine if new design criteria are required and if so adopt.	Design of new systems and existing system upgrades cater for expected storm flows. Mitigate over time instances of localised flooding associated with higher intensity storm events.	Infrastructure Services	2020-2021 FY
Ensure consistency and currency of information on council systems	Useful reference for staff. Useful reference for developers and community	Infrastructure Services incl. GIS	2020-2021 FY Ongoing
Consolidate flood information in one location/map.	Knowledge is available across Council. Support the development of planning scheme hazard maps. Useful for development applications	Infrastructure Services incl. GIS	2020-2021 FY Ongoing
Develop a Stormwater detention/retention policy	Provide clear guidance on the use of such infrastructure, design, construction, and maintenance criteria and responsibilities.	Infrastructure Services	2021-2022 FY
Develop a Water Sensitive Urban Design (WSUD) document	Provides guidance on the purpose, need, design, construction and maintenance responsibilities.	Infrastructure Services	2021-2022 FY
Develop a Stormwater Service Area map series. Review current stormwater catchment layer on GIS and align with the current and future capacity to service.	Provide a clear connection between existing stormwater network and expansion capability. Could provide a basis to establish a stormwater change regime.	Infrastructure Services	2021-2022 FY Ongoing
Develop a Level of Service document for Stormwater Infrastructure	Sets a standard for council to achieve. Sets a benchmark for the community to understand	Infrastructure Services	2023-2024 FY
Develop and maintain a register of flooding hot spots and add new sites/issues as they become obvious.	Manage known localised flooding risk areas. Identify issues where assessment is required and inclusion in future works programs. Data to be included in a GIS flood layer. Useful reference for staff and information for community.	Infrastructure Services	Ongoing

Systems and Processes	Benefits	Responsibility	Timeline
Ensure appropriate management processes are in place to guide work in waterways, and to limit impact on the natural environment.	Preserve the integrity and amenity in existing natural waterways. Will provide guidance, education and training for staff, developers and contractors working in waterways.	Infrastructure Services	Ongoing
"Gaps" in stormwater network are noted for capture and rectification in forward works programs.	Improvement works are identified, costed and prioritised for future works. Progressively resolves areas where no current ability to connect to the stormwater network.	Infrastructure Services	Ongoing
Maintain a "Council Map" for stormwater	Comply with Section 208 of the Local Government Act 1993 and Section 12 of the Urban Drainage Act 2013.	Infrastructure Services	Ongoing
Review 'buffer' zones abutting natural waterways. Consistently apply established distances. Consider increasing width of 'buffer' zones to protect banks and property.	Maintain accessible public natural habitat zones along waterways. Protection against bank erosion. Minimise erosion of private property.	Infrastructure Services and Community Services (Planning)	Ongoing
Consider the use of and requirement for either 'easements' or 'reserves' containing natural waterways ('reserves' preferred).	Provides accessible 'public' or 'crown' areas to allow maintenance and improvements to waterways. Prevents/restricts private ownership abutting natural waterways	Infrastructure Services and Community Services (Planning)	Ongoing

9. COSTS, BENEFITS AND FUNDING ARRANGEMENTS

The Action Plan has broadly identified cost, benefit and funding opportunities to address those projects and strategies. Such an approach assists in broadly identify priorities.

For the majority of project's and strategies there is a need to source funding, either via the Council's capital works program or externally through grants or other agencies.

In seeking such funding there is generally a need for a more detailed assessment of "Cost and Benefit" to enable a projects viability to be proved up.

The more detailed assessment may include

- . Preliminary design and project costing.
- . Cost benefit analysis.
- . Risk assessment.

10. PRIORITIES AND TIMEFRAMES

Project priorities are noted on the action plan. The priority has been assigned generally through consideration of Risk exposure either to Council or more directly to the community, at a local or broader level.

Timeframes will adjust over time depending upon budget allocations and review of project priorities and in response to unforeseen circumstances.

11. RESPONSIBILITIES

The Council has primary responsibility for managing stormwater in the urban area.

The river environments and coastal beach strip are managed by the State Government. Works in those environments, related to stormwater assets, requires approval from the respective Government Agencies.

Understanding the impacts of riverine flooding is a joint responsibility of the State Government and Council, however, the role for the Council is understanding the extent of risk and working with stakeholders to mitigate the risk or ensuring persons at risk are aware of the potential for inundation.

11.1 COMMUNICATION AND CONSULTATION

The purpose of this plan is to provide the community and Council staff with an understanding of the Urban stormwater system, how it is managed, current issues and risks which may need to be addressed and a plan of action to address such issues and risks, on a priority basis.

The plan informs decisions in regard to the allocation of resources within Council and supports potential applications for external funding to address identified issues.

Planned communication and consultation actions include:

Table 11.1 Communication Strategy

Action	Responsibility	Timeline
Where appropriate make available information on the extent of flood impacts, advice on flood preparedness and plan mitigation actions.	Infrastructure Services	Ongoing
Develop a page on the Council website to provide information on stormwater, stormwater management, flooding and flood preparedness and water quality issues. Include a link to the Interim Planning Scheme hazard and flood mapping.	Infrastructure Services	Adoption of SSMP
Publish the Stormwater System Management Plan on Council's website.	Infrastructure Services	Adoption of SSMP

12. REVIEW OF THE STORMWATER SYSTEM MANAGEMENT PLANS

This initial Stormwater System Management plan is the first iteration of such a document.

The plan is underpinned by a range of other documents as noted throughout this document.

To implement the actions noted within the plan will require a number of budget cycles.

The planned review cycle for this plan is 3 years.

APPENDIX A – URBAN AREAS

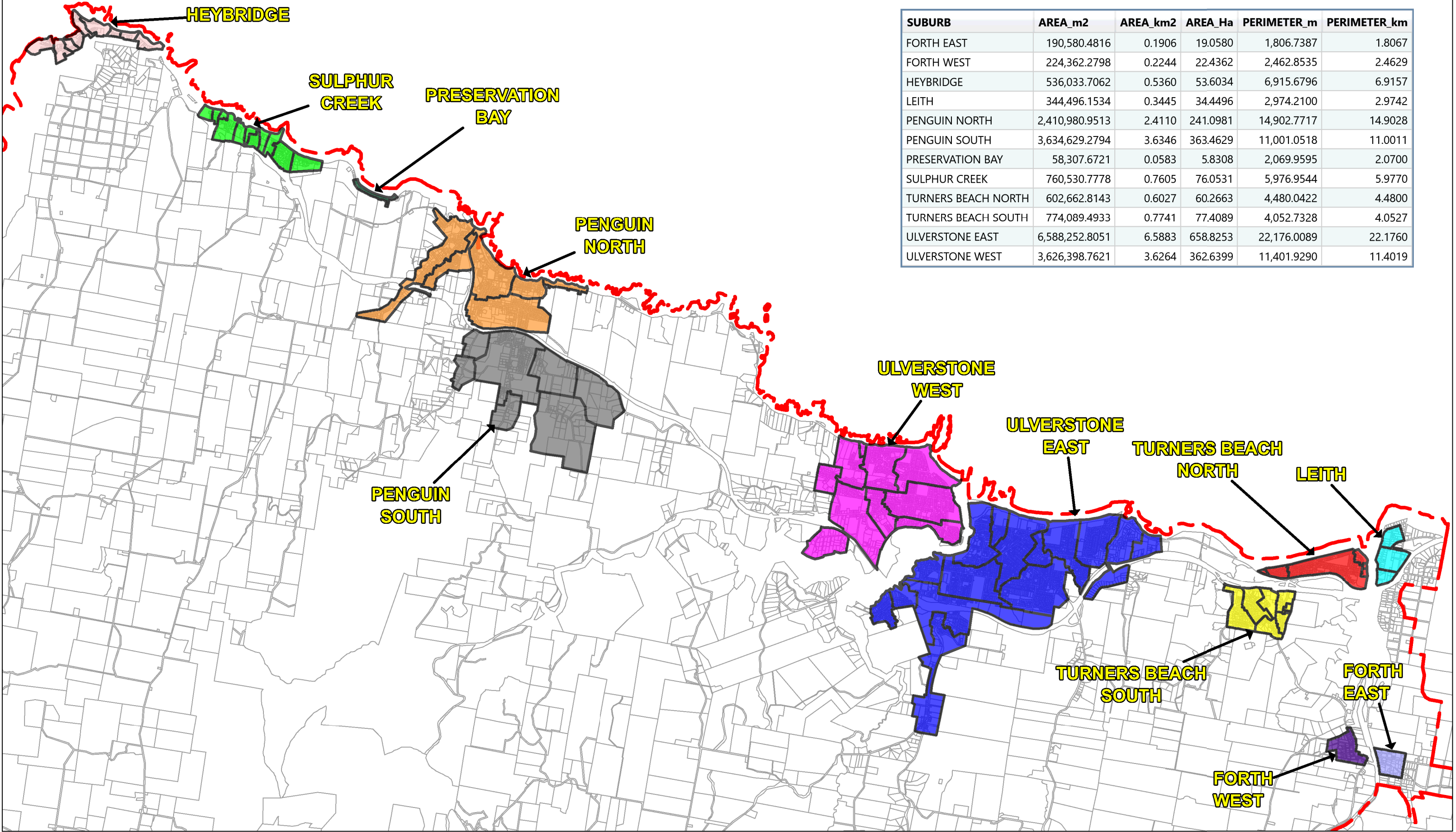
Attach the several individual Urban Area maps

- . Ulverstone
- . Penguin
- . Turners Beach and Leith (with Forth as a possible insert)
- . Sulphur Creek (with Preservation Bay as an insert)
- . Heybridge

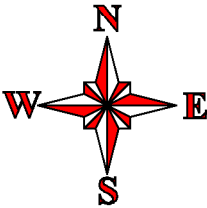
APPENDIX B – URBAN CATCHMENTS

Attach the several individual Urban Catchment maps

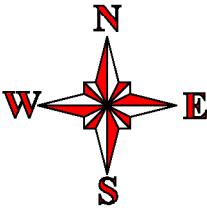
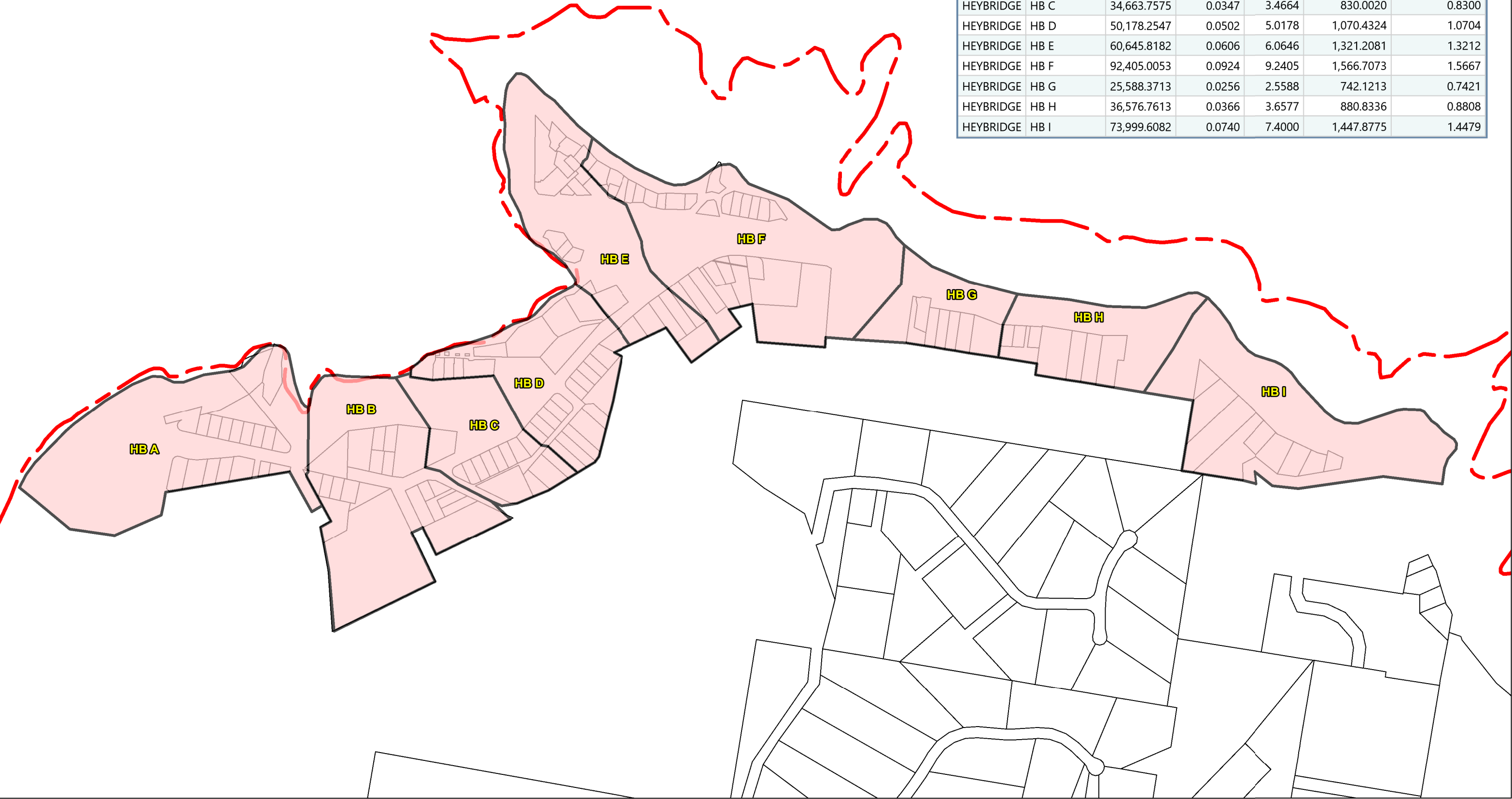
- . Ulverstone (East, Central and West)
- . Penguin (East, South, and West)
- . Turners Beach (North and South) and Leith
- . Forth (East and West)
- . Sulphur Creek (East and West) – with Preservation Bay as an insert
- . Heybridge (East and West)



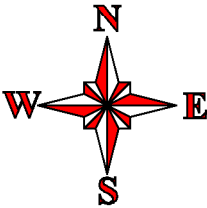
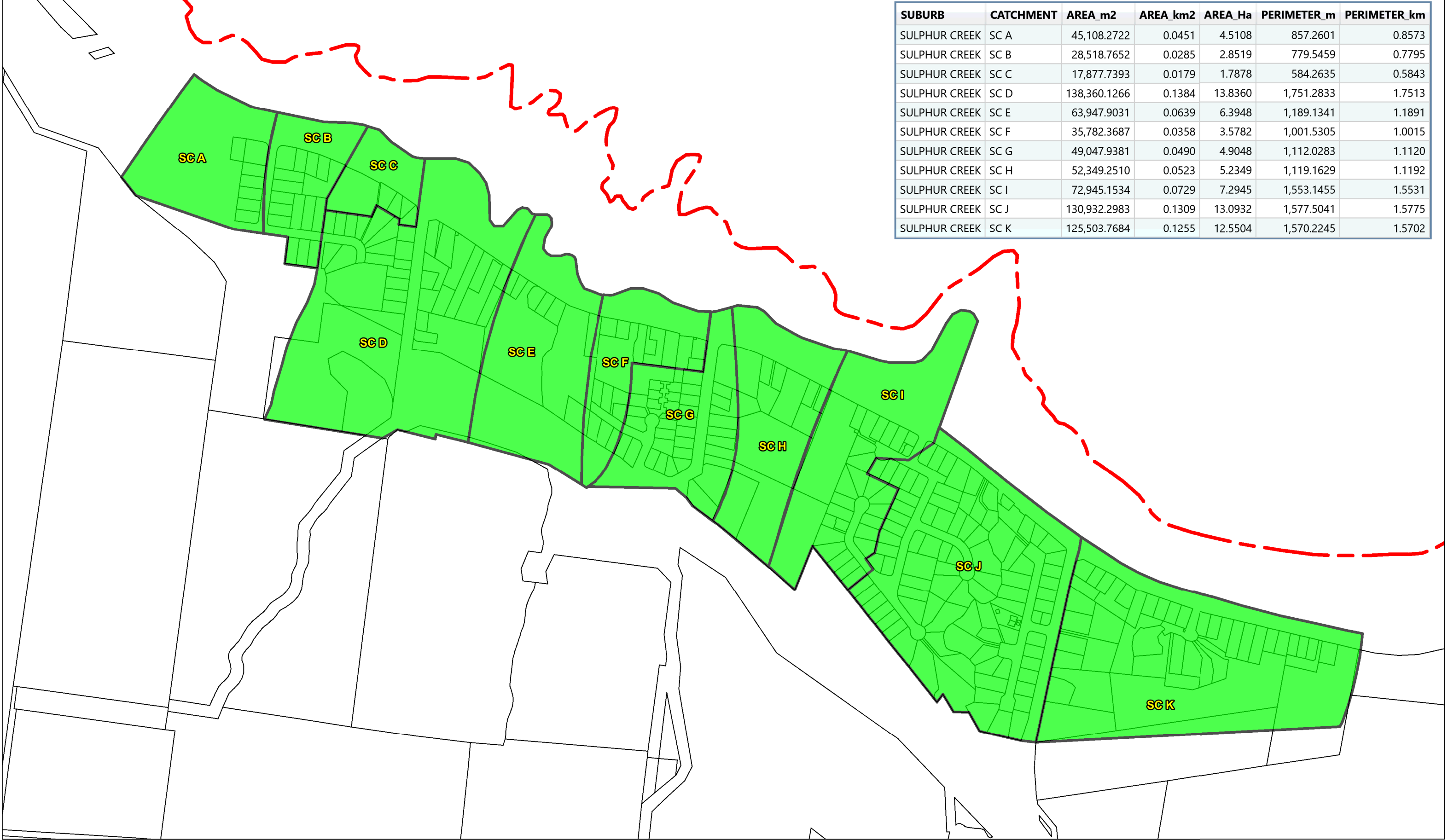
SUBURB	AREA_m2	AREA_km2	AREA_Ha	PERIMETER_m	PERIMETER_km
FORTH EAST	190,580.4816	0.1906	19.0580	1,806.7387	1.8067
FORTH WEST	224,362.2798	0.2244	22.4362	2,462.8535	2.4629
HEYBRIDGE	536,033.7062	0.5360	53.6034	6,915.6796	6.9157
LEITH	344,496.1534	0.3445	34.4496	2,974.2100	2.9742
PENGUIN NORTH	2,410,980.9513	2.4110	241.0981	14,902.7717	14.9028
PENGUIN SOUTH	3,634,629.2794	3.6346	363.4629	11,001.0518	11.0011
PRESERVATION BAY	58,307.6721	0.0583	5.8308	2,069.9595	2.0700
SULPHUR CREEK	760,530.7778	0.7605	76.0531	5,976.9544	5.9770
TURNERS BEACH NORTH	602,662.8143	0.6027	60.2663	4,480.0422	4.4800
TURNERS BEACH SOUTH	774,089.4933	0.7741	77.4089	4,052.7328	4.0527
ULVERSTONE EAST	6,588,252.8051	6.5883	658.8253	22,176.0089	22.1760
ULVERSTONE WEST	3,626,398.7621	3.6264	362.6399	11,401.9290	11.4019



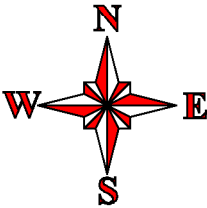
SUBURB	CATCHMENT	AREA_m2	AREA_km2	AREA_Ha	PERIMETER_m	PERIMETER_km
HEYBRIDGE	HB A	85,515.1501	0.0855	8.5515	1,411.7076	1.4117
HEYBRIDGE	HB B	76,449.4517	0.0764	7.6449	1,379.4334	1.3794
HEYBRIDGE	HB C	34,663.7575	0.0347	3.4664	830.0020	0.8300
HEYBRIDGE	HB D	50,178.2547	0.0502	5.0178	1,070.4324	1.0704
HEYBRIDGE	HB E	60,645.8182	0.0606	6.0646	1,321.2081	1.3212
HEYBRIDGE	HB F	92,405.0053	0.0924	9.2405	1,566.7073	1.5667
HEYBRIDGE	HB G	25,588.3713	0.0256	2.5588	742.1213	0.7421
HEYBRIDGE	HB H	36,576.7613	0.0366	3.6577	880.8336	0.8808
HEYBRIDGE	HB I	73,999.6082	0.0740	7.4000	1,447.8775	1.4479



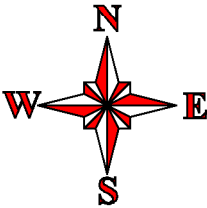
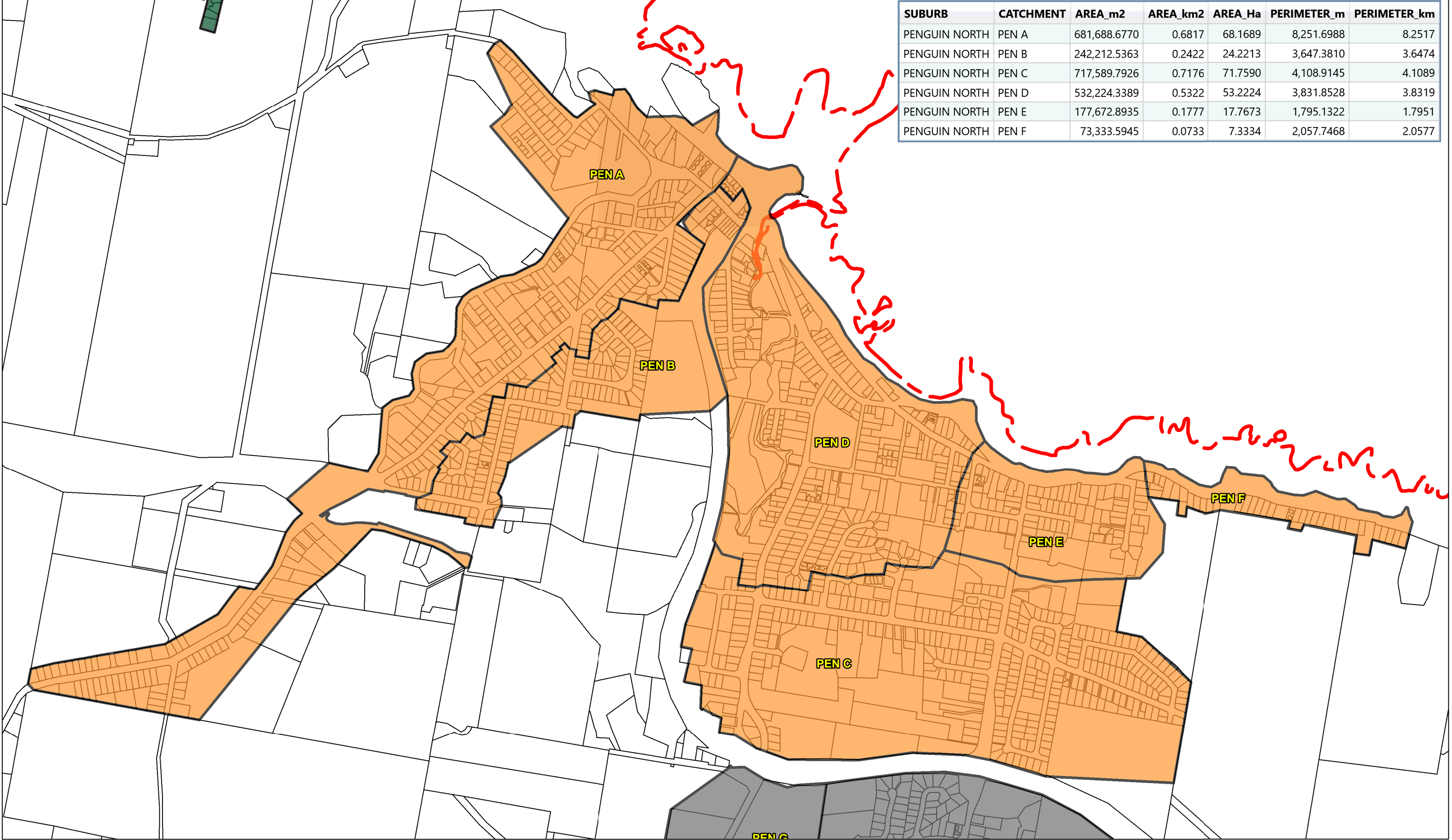
SUBURB	CATCHMENT	AREA_m2	AREA_km2	AREA_Ha	PERIMETER_m	PERIMETER_km
SULPHUR CREEK	SC A	45,108.2722	0.0451	4.5108	857.2601	0.8573
SULPHUR CREEK	SC B	28,518.7652	0.0285	2.8519	779.5459	0.7795
SULPHUR CREEK	SC C	17,877.7393	0.0179	1.7878	584.2635	0.5843
SULPHUR CREEK	SC D	138,360.1266	0.1384	13.8360	1,751.2833	1.7513
SULPHUR CREEK	SC E	63,947.9031	0.0639	6.3948	1,189.1341	1.1891
SULPHUR CREEK	SC F	35,782.3687	0.0358	3.5782	1,001.5305	1.0015
SULPHUR CREEK	SC G	49,047.9381	0.0490	4.9048	1,112.0283	1.1120
SULPHUR CREEK	SC H	52,349.2510	0.0523	5.2349	1,119.1629	1.1192
SULPHUR CREEK	SC I	72,945.1534	0.0729	7.2945	1,553.1455	1.5531
SULPHUR CREEK	SC J	130,932.2983	0.1309	13.0932	1,577.5041	1.5775
SULPHUR CREEK	SC K	125,503.7684	0.1255	12.5504	1,570.2245	1.5702



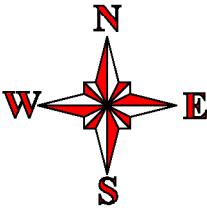
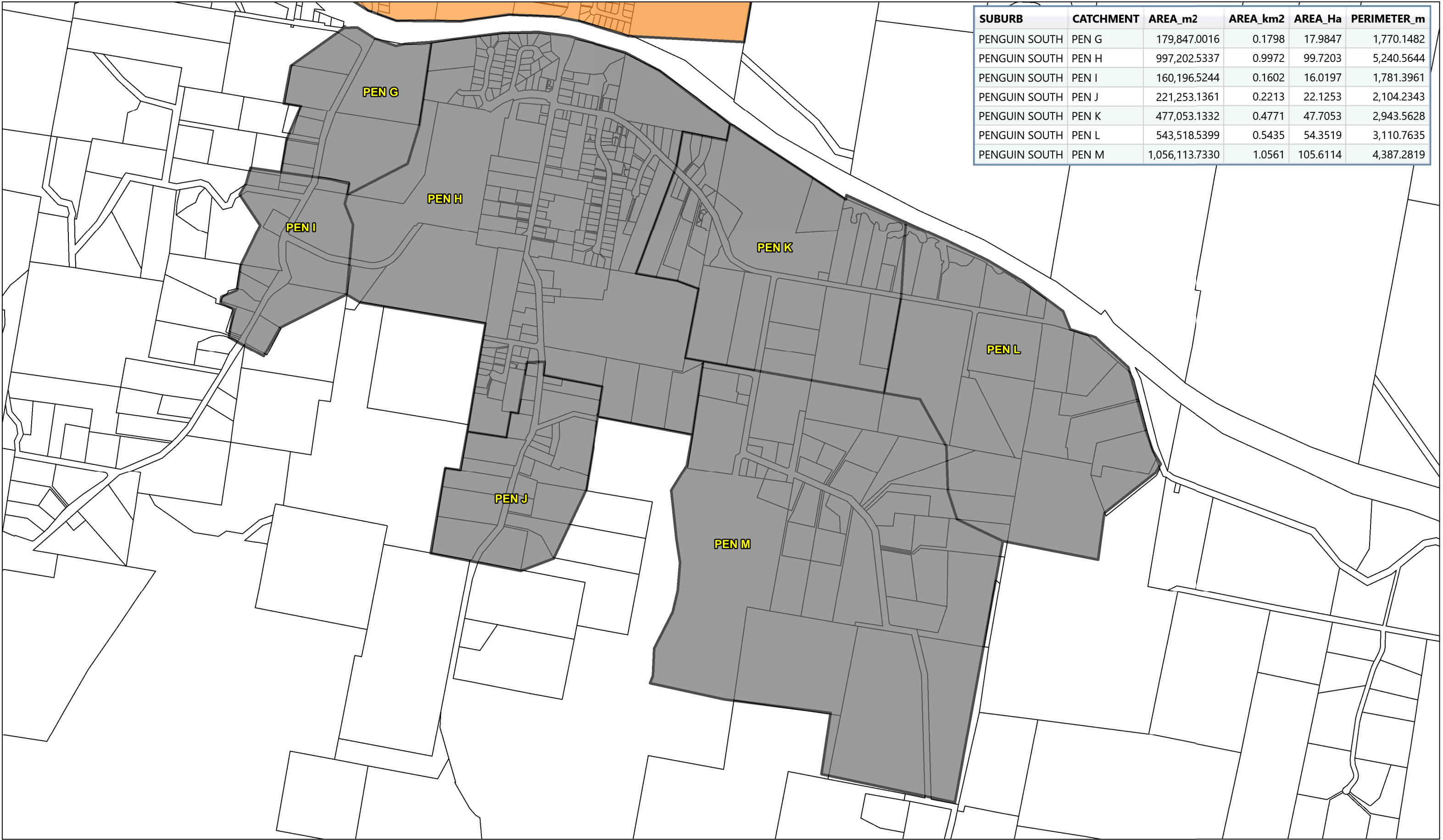
SUBURB	CATCHMENT	AREA_m2	AREA_km2	AREA_Ha	PERIMETER_m	PERIMETER_km
PRESERVATION BAY	PB A	58,307.6721	0.0583	5.8308	2,069.9595	2.0700



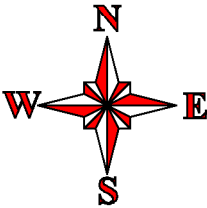
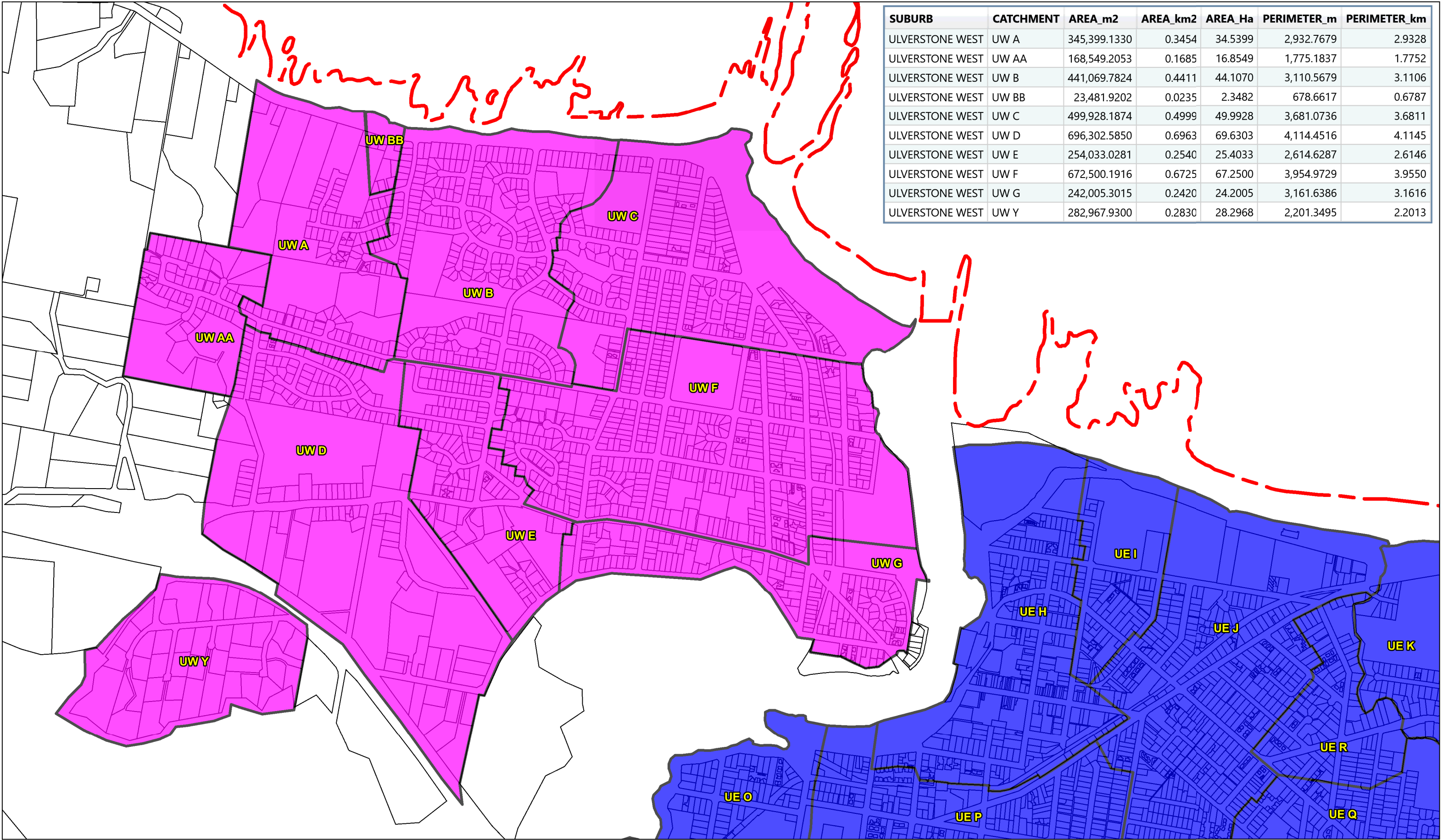
SUBURB	CATCHMENT	AREA_m2	AREA_km2	AREA_Ha	PERIMETER_m	PERIMETER_km
PENGUIN NORTH	PEN A	681,688.6770	0.6817	68.1689	8,251.6988	8.2517
PENGUIN NORTH	PEN B	242,212.5363	0.2422	24.2213	3,647.3810	3.6474
PENGUIN NORTH	PEN C	717,589.7926	0.7176	71.7590	4,108.9145	4.1089
PENGUIN NORTH	PEN D	532,224.3389	0.5322	53.2224	3,831.8528	3.8319
PENGUIN NORTH	PEN E	177,672.8935	0.1777	17.7673	1,795.1322	1.7951
PENGUIN NORTH	PEN F	73,333.5945	0.0733	7.3334	2,057.7468	2.0577

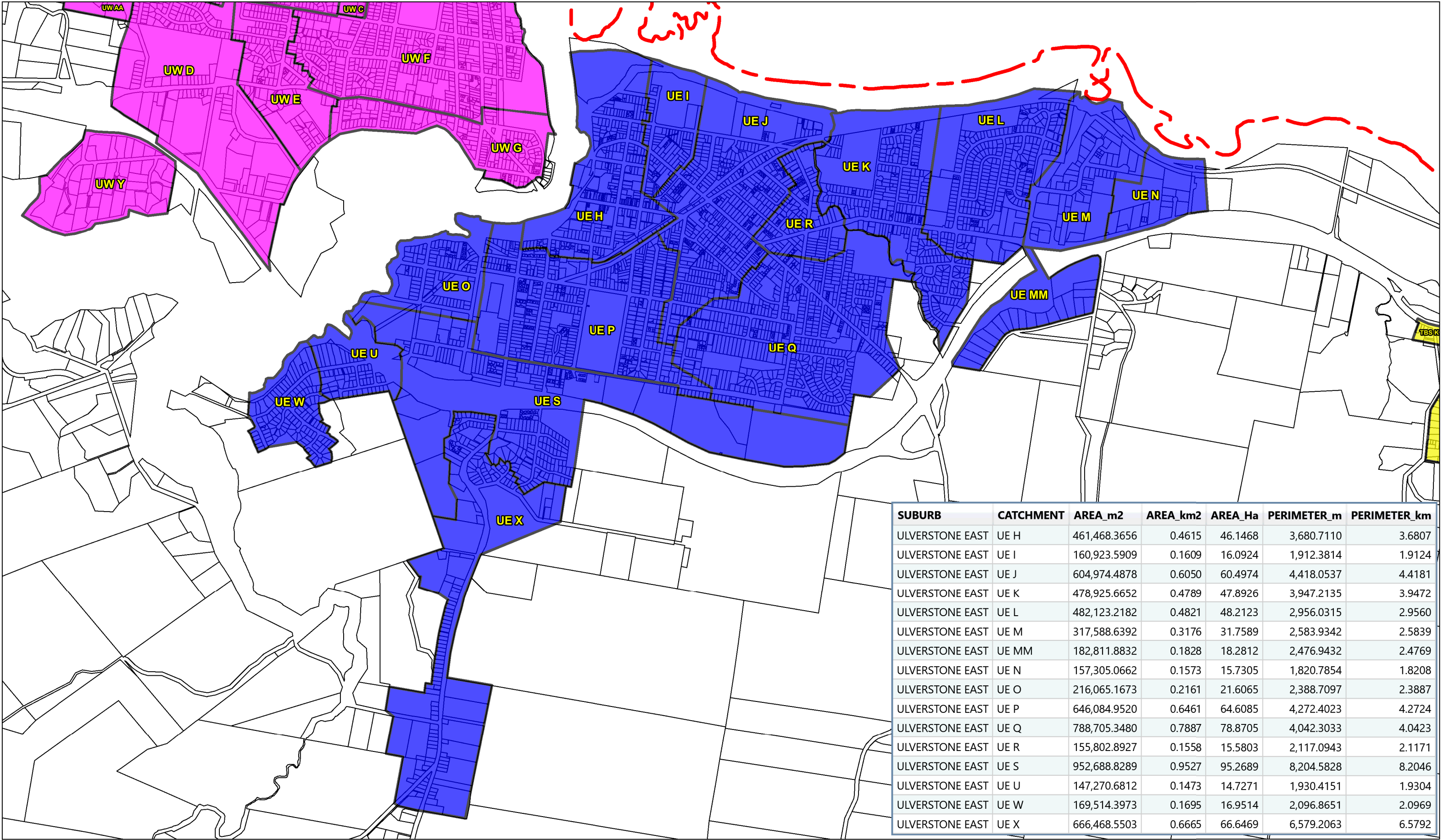


SUBURB	CATCHMENT	AREA_m2	AREA_km2	AREA_Ha	PERIMETER_m
PENGUIN SOUTH	PEN G	179,847.0016	0.1798	17.9847	1,770.1482
PENGUIN SOUTH	PEN H	997,202.5337	0.9972	99.7203	5,240.5644
PENGUIN SOUTH	PEN I	160,196.5244	0.1602	16.0197	1,781.3961
PENGUIN SOUTH	PEN J	221,253.1361	0.2213	22.1253	2,104.2343
PENGUIN SOUTH	PEN K	477,053.1332	0.4771	47.7053	2,943.5628
PENGUIN SOUTH	PEN L	543,518.5399	0.5435	54.3519	3,110.7635
PENGUIN SOUTH	PEN M	1,056,113.7330	1.0561	105.6114	4,387.2819

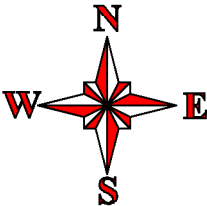


SUBURB	CATCHMENT	AREA_m2	AREA_km2	AREA_Ha	PERIMETER_m	PERIMETER_km
ULVERSTONE WEST	UW A	345,399.1330	0.3454	34.5399	2,932.7679	2.9328
ULVERSTONE WEST	UW AA	168,549.2053	0.1685	16.8549	1,775.1837	1.7752
ULVERSTONE WEST	UW B	441,069.7824	0.4411	44.1070	3,110.5679	3.1106
ULVERSTONE WEST	UW BB	23,481.9202	0.0235	2.3482	678.6617	0.6787
ULVERSTONE WEST	UW C	499,928.1874	0.4999	49.9928	3,681.0736	3.6811
ULVERSTONE WEST	UW D	696,302.5850	0.6963	69.6303	4,114.4516	4.1145
ULVERSTONE WEST	UW E	254,033.0281	0.2540	25.4033	2,614.6287	2.6146
ULVERSTONE WEST	UW F	672,500.1916	0.6725	67.2500	3,954.9729	3.9550
ULVERSTONE WEST	UW G	242,005.3015	0.2420	24.2005	3,161.6386	3.1616
ULVERSTONE WEST	UW Y	282,967.9300	0.2830	28.2968	2,201.3495	2.2013

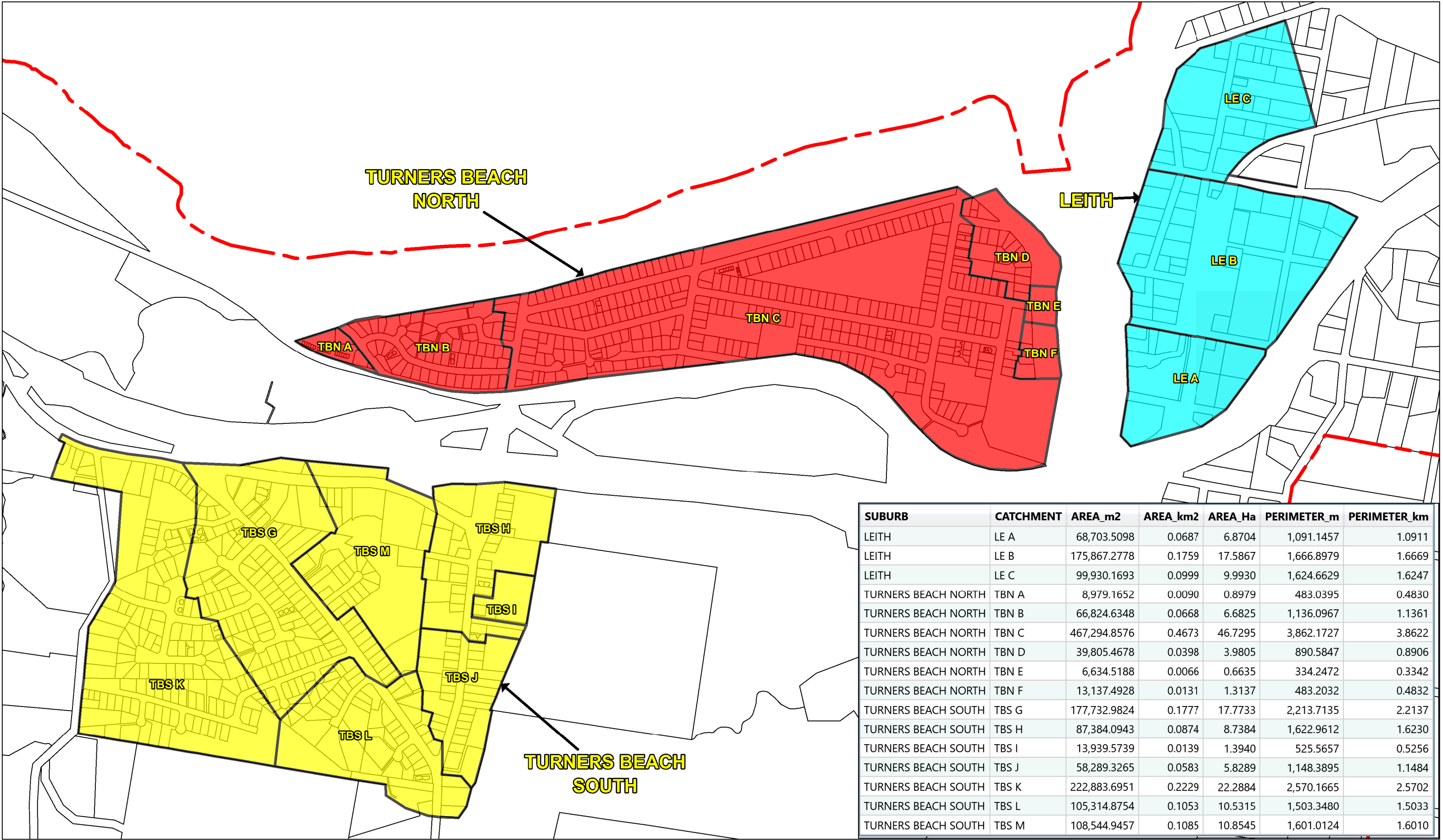




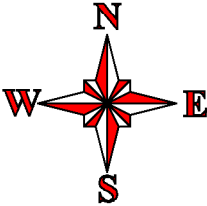
SUBURB	CATCHMENT	AREA_m2	AREA_km2	AREA_Ha	PERIMETER_m	PERIMETER_km
ULVERSTONE EAST	UE H	461,468.3656	0.4615	46.1468	3,680.7110	3.6807
ULVERSTONE EAST	UE I	160,923.5909	0.1609	16.0924	1,912.3814	1.9124
ULVERSTONE EAST	UE J	604,974.4878	0.6050	60.4974	4,418.0537	4.4181
ULVERSTONE EAST	UE K	478,925.6652	0.4789	47.8926	3,947.2135	3.9472
ULVERSTONE EAST	UE L	482,123.2182	0.4821	48.2123	2,956.0315	2.9560
ULVERSTONE EAST	UE M	317,588.6392	0.3176	31.7589	2,583.9342	2.5839
ULVERSTONE EAST	UE MM	182,811.8832	0.1828	18.2812	2,476.9432	2.4769
ULVERSTONE EAST	UE N	157,305.0662	0.1573	15.7305	1,820.7854	1.8208
ULVERSTONE EAST	UE O	216,065.1673	0.2161	21.6065	2,388.7097	2.3887
ULVERSTONE EAST	UE P	646,084.9520	0.6461	64.6085	4,272.4023	4.2724
ULVERSTONE EAST	UE Q	788,705.3480	0.7887	78.8705	4,042.3033	4.0423
ULVERSTONE EAST	UE R	155,802.8927	0.1558	15.5803	2,117.0943	2.1171
ULVERSTONE EAST	UE S	952,688.8289	0.9527	95.2689	8,204.5828	8.2046
ULVERSTONE EAST	UE U	147,270.6812	0.1473	14.7271	1,930.4151	1.9304
ULVERSTONE EAST	UE W	169,514.3973	0.1695	16.9514	2,096.8651	2.0969
ULVERSTONE EAST	UE X	666,468.5503	0.6665	66.6469	6,579.2063	6.5792



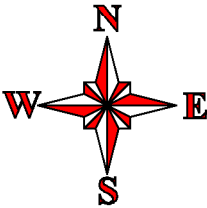
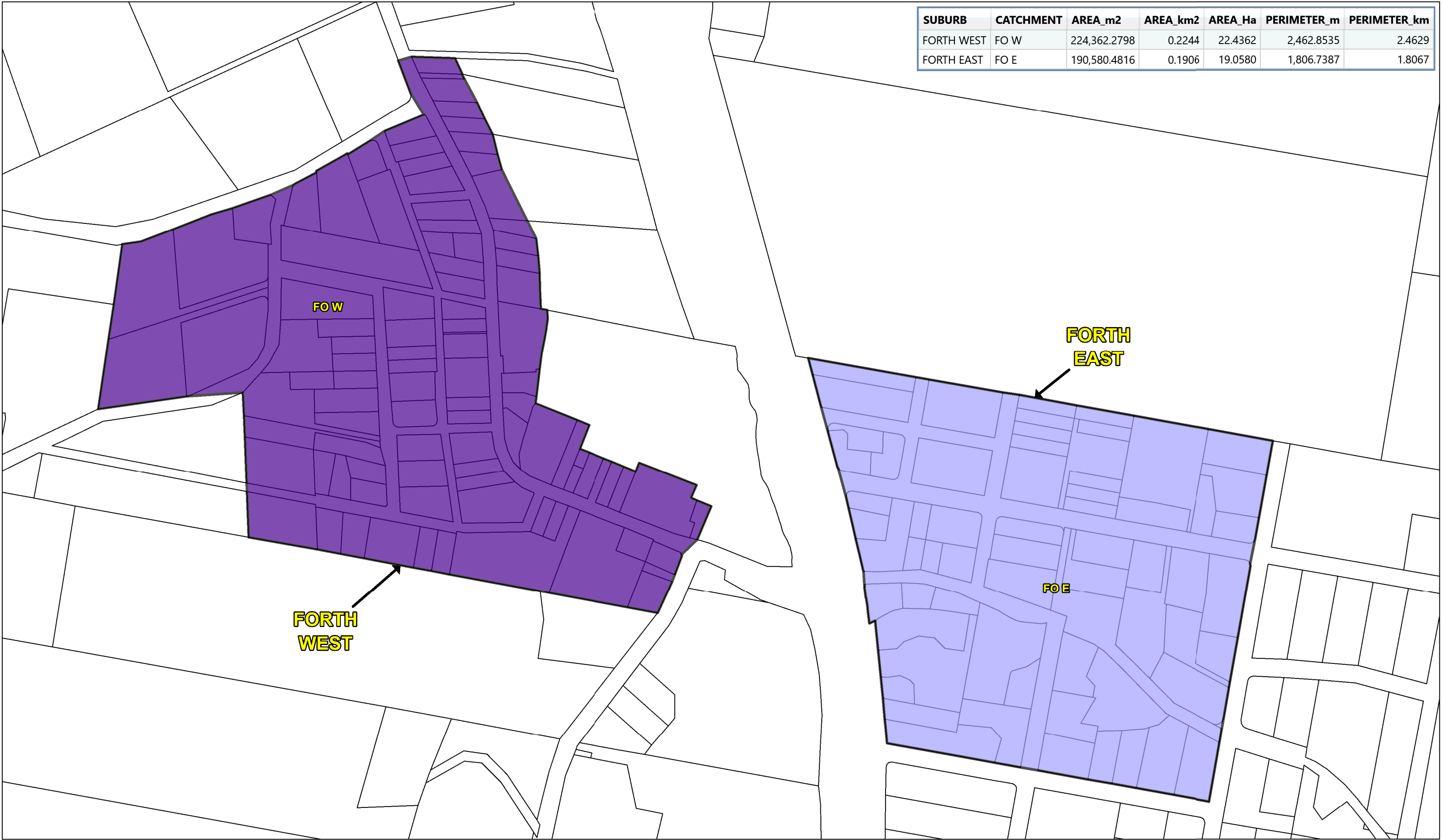
ULVERSTONE EAST DRAINAGE CATCHMENTS



SUBURB	CATCHMENT	AREA_m2	AREA_km2	AREA_Ha	PERIMETER_m	PERIMETER_km
LEITH	LE A	68,703.5098	0.0687	6.8704	1,091.1457	1.0911
LEITH	LE B	175,867.2778	0.1759	17.5867	1,666.8979	1.6669
LEITH	LE C	99,930.1693	0.0999	9.9930	1,624.6629	1.6247
TURNERS BEACH NORTH	TBN A	8,979.1652	0.0090	0.8979	483.0395	0.4830
TURNERS BEACH NORTH	TBN B	66,824.6348	0.0668	6.6825	1,136.0967	1.1361
TURNERS BEACH NORTH	TBN C	467,294.8576	0.4673	46.7295	3,862.1727	3.8622
TURNERS BEACH NORTH	TBN D	39,805.4678	0.0398	3.9805	890.5847	0.8906
TURNERS BEACH NORTH	TBN E	6,634.5188	0.0066	0.6635	334.2472	0.3342
TURNERS BEACH NORTH	TBN F	13,137.4928	0.0131	1.3137	483.2032	0.4832
TURNERS BEACH SOUTH	TBS G	177,732.9824	0.1777	17.7733	2,213.7135	2.2137
TURNERS BEACH SOUTH	TBS H	87,384.0943	0.0874	8.7384	1,622.9612	1.6230
TURNERS BEACH SOUTH	TBS I	13,939.5739	0.0139	1.3940	525.5657	0.5256
TURNERS BEACH SOUTH	TBS J	58,289.3265	0.0583	5.8289	1,148.3895	1.1484
TURNERS BEACH SOUTH	TBS K	222,883.6951	0.2229	22.2884	2,570.1665	2.5702
TURNERS BEACH SOUTH	TBS L	105,314.8754	0.1053	10.5315	1,503.3480	1.5033
TURNERS BEACH SOUTH	TBS M	108,544.9457	0.1085	10.8545	1,601.0124	1.6010



SUBURB	CATCHMENT	AREA_m2	AREA_km2	AREA_Ha	PERIMETER_m	PERIMETER_km
FORTH WEST	FO W	224,362.2798	0.2244	22.4362	2,462.8535	2.4629
FORTH EAST	FO E	190,580.4816	0.1906	19.0580	1,806.7387	1.8067



FORTH DRAINAGE CATCHMENTS