From: Mick Purves
To: McCrossen, Samuel; TPC Enquiry
Subject: RE: Post hearings directions response
Date: Monday, 18 January 2021 7:51:03 PM
Attachments: image001.jpg
image002.jpg
Saltwater Creek Flood Study_A.pdf
Rural zoning for your property and Priority Vegetation overlay.msg

---

Hi Samuel

Attached is the Saltwater Creek Study.

I couldn't access the Council system to attach a copy on Friday evening after speaking with the General Manager. A copy of the email to Adam Greenhill is attached, with the maps, for your information.

I will have a copy of SA07001 for you tomorrow.

Please accept my apologies.

Regards

Mick Purves
Senior Planning Consultant
(3 days per week)

Glamorgan Spring Bay Council
PO Box 6
TRIABUNNA 7190
E: mick.purves@freycinet.tas.gov.au

From: McCrossen, Samuel <Samuel.McCrossen@planning.tas.gov.au>
Sent: Monday, 18 January 2021 9:03 AM
To: Mick Purves <purvesmick1@gmail.com>; Mick Purves <mick.purves@freycinet.tas.gov.au>
Subject: RE: Post hearings directions response

Hi Mick,

Thanks for your response. I'll speak to the delegates about the request for the extension for the PPZ.

The Saltwater Flood Study and planning permit SU07001 didn't come through, could you resend?

Also, in case the delegates ask me, could I have a copy of the diagram you sent to Adam Greenhill? They may want to cross reference with the original of the priority veg layer that we have on GIS and want to make sure that they get any directions right that arise as a result of the representation?

Regards,

Samuel

Samuel McCrossen
Planning Adviser

Level 3 144 Macquarie Street Hobart TAS 7000
GPO Box 1691 Hobart TAS 7001

03 6165 6833
www.planning.tas.gov.au

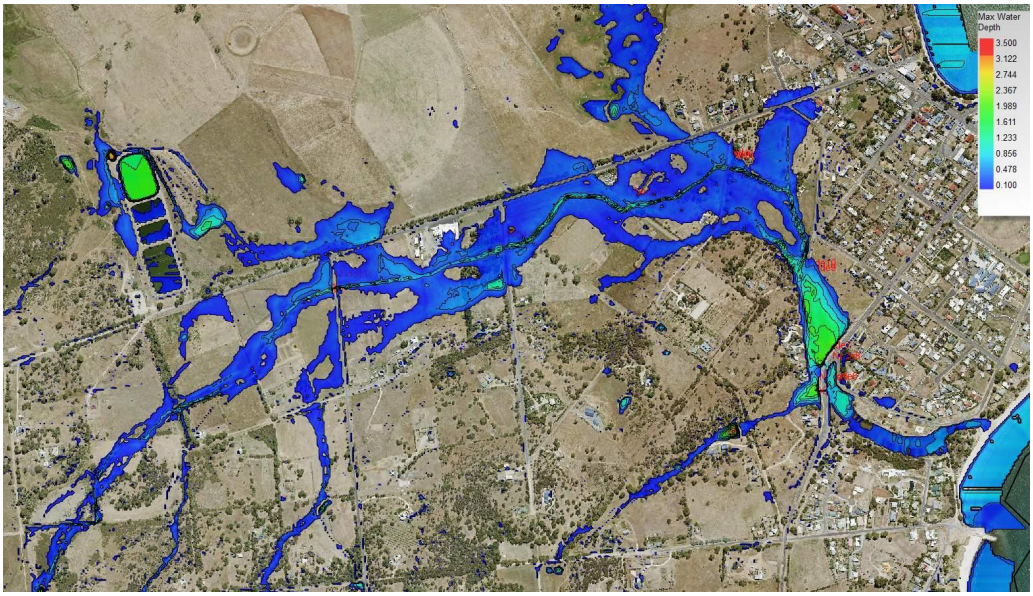
From: Mick Purves <purvesmick1@gmail.com>
Sent: Friday, 15 January 2021 5:05 PM
To: TPC Enquiry <tpc@planning.tas.gov.au>; McCrossen, Samuel <Samuel.McCrossen@planning.tas.gov.au>
Cc: Mick Purves <mick.purves@freycinet.tas.gov.au>; Greg Ingham <greg.ingham@freycinet.tas.gov.au>
Subject: Post hearings directions response

Good afternoon,

Please see the attached response to your directions fo 18 December 2020.

Thank you and regards
Mick Purves
Town Planning Solutions Pty Ltd
MPIA MTP

BURBURYCONSULTING



PROJECT

Saltwater Creek Flood Study

CLIENT

Glamorgan Spring Bay Council

DATE

23 February 2018

→ burburyconsulting.com.au

CIVIL | STRUCTURAL | MARITIME

ENGINEERING & PROJECT MANAGEMENT

Burbury Consulting Pty Ltd
ABN 75 146 719 959

2/2 Gore Street, South Hobart, 7004
PO Box 354, South Hobart, 7004

admin@burburyconsulting.com.au
www.burburyconsulting.com.au

Tel 03 6223 8007
Fax 03 6212 0642

Contents

1. Introduction 1

2. Background Information 2

2.1 Area of Assessment 2

2.2 Tide Levels for Swansea 4

2.3 Existing Flood Studies & References 4

2.4 Historical Flood Impacts and Anecdotal Inputs on Flood Observations 6

2.5 Site Infrastructure 8

3. Catchment Hydrology 11

3.1 General 11

3.2 Methodology 12

3.3 Rainfall Losses 12

3.4 Design Rainfall 12

3.4.1 Critical Storm Duration 12

4. Hydraulic Modelling 15

4.1 1D Model Setup 15

4.2 2D Model Setup 15

4.3 Hydraulic Model Results 15

4.3.1 Tasman Highway & River Street Intersection 21

5. Conclusions 22

5.1 Preliminary Recommendations for Flood Management & Mitigation 22

Burbury Consulting Pty Ltd ACN 146 719 959
2/2 Gore Street, South Hobart, TAS 7004

P. 03 6223 8007 F. 03 6212 0642
admin@burburyconsulting.com.au
www.burburyconsulting.com.au

Document Status

Rev No.	Author	Status	Approved for Issue	
			Name	Date
A	A. Darwin & J. Burbury	For Review	J. Burbury	28.02.18

1. Introduction

Burbury Consulting was engaged by Glamorgan Spring Bay Council (GSBC) to provide the engineering services required as part of a hydrological review to assess the flooding of an area located off River Street, along the Saltwater Creek flood plain in Swansea, Tasmania.

The scope of works includes but is not limited to:

- Determining Hydrology for 5 %, 2 % & 1 % AEP events;
- Determine the flood levels and analyse critical storm duration for 1% AEP;
- Development of flood model and flooding maps for existing conditions in January 2016 (1% AEP effect);
- Recommendations for options for flood management, controls and creek maintenance and additional work requirements to document the most cost-effective options relevant to 1% and 5% AEP; and
- Preparation of this report with findings and recommendations.

2. Background Information

2.1 Area of Assessment

The extent of study area is as noted in Figure 1 below and in general covers the Saltwater Creek catchment, storm water infrastructure within the catchment and overland flow that discharges through the Saltwater Creek along the Esplanade and through Schouten House Beach.

Figure 1 Extents of Study Area - Saltwater Creek

A key feature of the Saltwater Creek is the outlet to Schouten House Beach that restricts flow due to either the sand bar formation across the outlet or tidal level during storms (or combination thereof). During and post storm events a channel will cut into the sand bar beach as the flow velocity and flow rate increases.

Historical aerials provide example of these change effects as listed in Figure 2 below.

Figure 2 Historical Aerials (GoogleEarth)

August 2003	September 2009	March 2010
		
September 2012	**March 2014**	**October 2015**
		

March 2010 and March 2014 aerials indicate a formed channel through the beach zone compared to August 2003 and September 2012 where the sand bar formation restricting flow.

2.2 Tide Levels for Swansea

The following tide levels are applicable for Swansea as identified by Marine & Safety Tasmania:

- Highest astronomical tide = 0.7m AHD
- Mean High High Water = 0.5m AHD
- Mean Low High Water = 0.1m AHD
- Mean Sea Level = 0.0m AHD
- Mean High Low Water = -0.1m AHD
- Mean Low Low Water = -0.6m AHD
- Lowest astronomical tide = -0.7m AHD

For this initial assessment we've adopted a sea level of 0.7m AHD however detailed design works for any flood mitigation infrastructure should be assessed for 2100 year sea level and storm surge effects.

2.3 Existing Flood Studies & References

References for previous flood studies of the area were provided by GSBC and included:

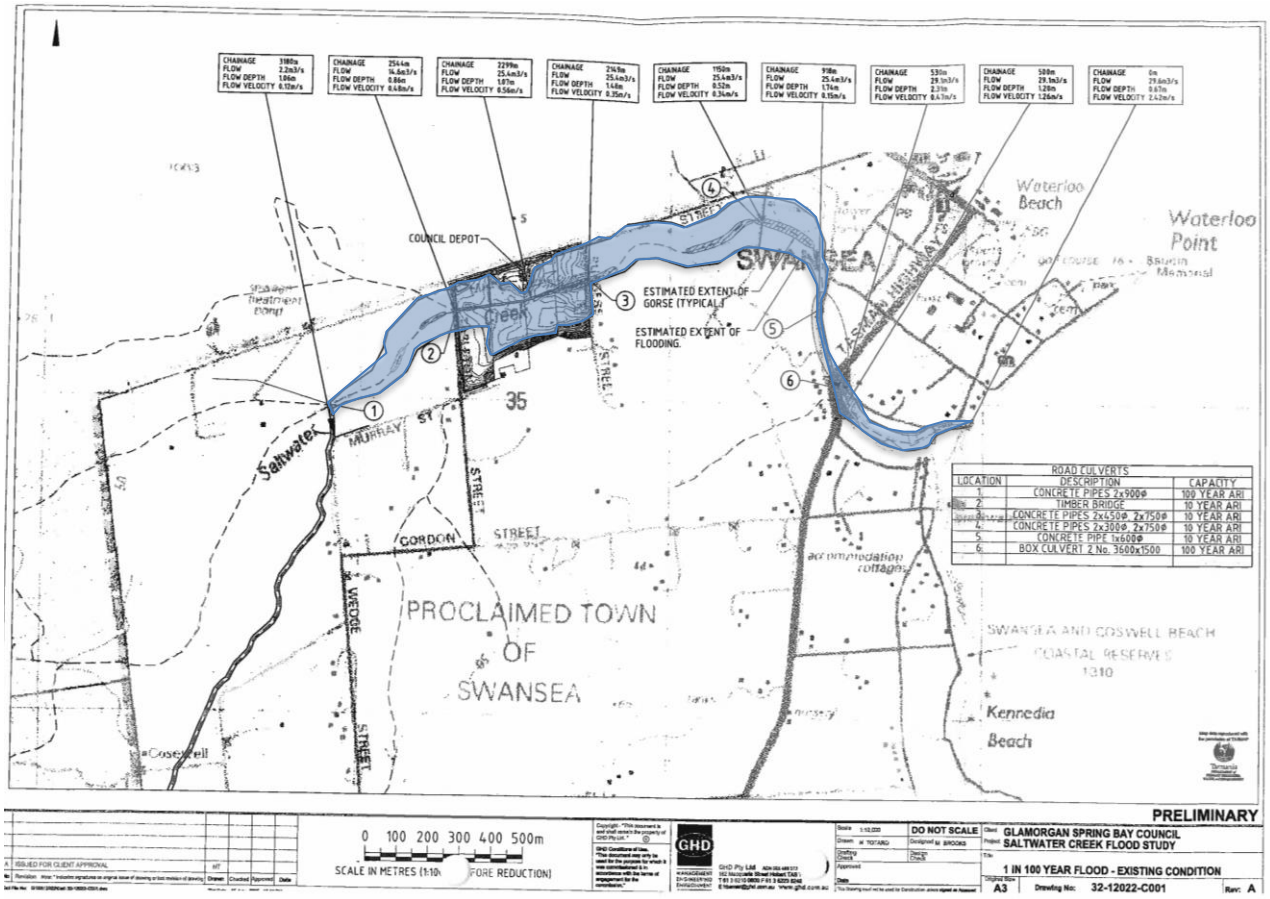
- Saltwater Creek Flood Study, GHD Pty Ltd, May 2005; and
- TasWater flood inundation mapping for Meredith Reservoir, theList, March 2018.

GHD conducted a previous flood study investigation for GSBC of the area in 2005 as part of an assessment of potential flooding of 2 Burgess Street. This previous assessment was completed using the ARR'87 methodologies and temporal patterns. The current best practice is applying the ARR'16 methodologies and revised temporal patterns which has been used in this investigation.

Whilst differing methods of assessment, the GHD report identified the issues along the creek that were "choked" with gorse bushes and dense weeds and applied an analysis on the effects to flood levels if the gorse was removed compared to retained. The analysis and report concluded that "a well maintained creek bed would result in lower flood levels" along sections of the Saltwater Creek catchment.

The GHD predicted 1:100-year flood mapping is included below in Figure 3 for reference.

Figure 3 GHD 1:100 Flood Mapping, 2005



TasWater flood inundation assessment for the Meredith Reservoir is provided below in Figure 4 for reference which outlines the area of inundation on flooding associated with the downstream catchment of the dam through extreme rainfall event and covers the downstream Saltwater Creek river and associated areas.

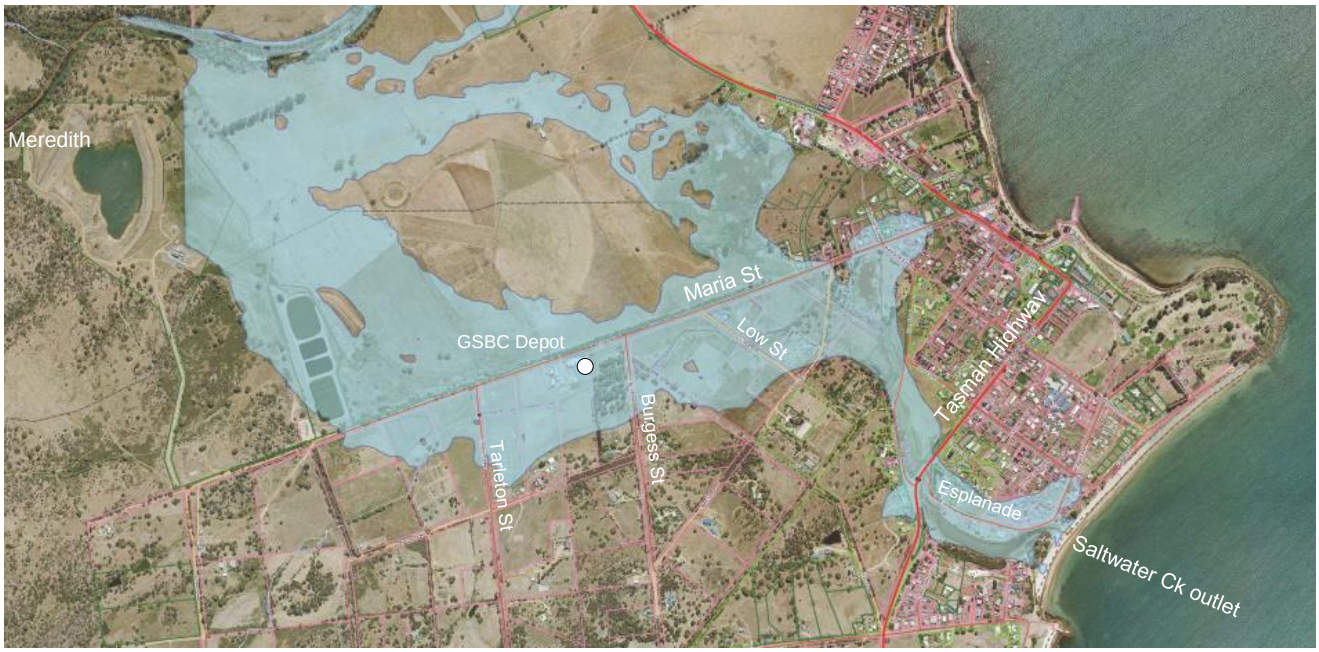
The mapping outlines areas of potential inundation but excludes information of hydrology of the Saltwater Creek upper catchment. It should be noted that the flooding impacts associated with the TasWater inundation analysis covers a far wider area of impact to the predicted flooding in Figure 3 above however the extent of flooding provides some guidance to the potential areas impacted by flood conditions along the Saltwater Creek downstream catchment.

The mapping highlights issues associated with higher risk of flooding along the Saltwater Creek for the following properties:

- 2, 4 and 8 Murray Street;
- 51, 49, 43, 33, 31, 29, 25, 23, 21, 19, 17, 15, 10, 12, 14, 48, 50 and 76 Maria Street;
- 1, 4, 5-7, 6 and 8 Dove Lane;
- 4 and 6 Wellington Street;
- 1 and 2 Burgess Street;
- 13 Low Street;
- 27 Victoria Street;

- 1, 2, 3, 4 Tasman Highway;
- 1, 4, 5, 8, 10, 13, 14, 15, 16, 17, 18 and 19 Esplanade;
- 2 Julia Street;
- 14,16,18, 23,25,29 Bridge Street;
- 6,8,10,11,12 Sunny View; and
- 19, 20, 21, 22, 24 and 25 Cooks Court.

Figure 4 TasWater Flood Mapping (Meredith Reservoir Flood Mapping)



2.4 Historical Flood Impacts and Anecdotal Inputs on Flood Observations

During 29-30 January 2016 a significant flood event occurred with flooding of areas along the Saltwater Creek rivulet.

In particular, the water levels increased at the culverts to Tasman Highway resulting in flooding of the junction of River Street and Tasman Highway along with flood damage to several houses and infrastructure.

A site inspection and public consultation with flood affected residents near the Tasman Highway and River Street intersection was conducted to gauge approximate/indicative floodwater depths.

The following observations we made with respect to the flood impacts as advised by residents and general site conditions observed of the stormwater infrastructure:

Saltwater Creek outlet (Esplanade):

- Large extents of siltation downstream of the culverts;
- Large extents and dense grass and reeds downstream of the culverts;
- Box culvert outlet – extent of sediment build up and reeds at outlet restricts free draining;

- Reportedly reserve flooded across to Esplanade locally;

River Street and Tasman Highway Junction:

- Box culvert inlet – poor alignment of the creek flow into the box culvert, reeds prior to culverts are very dense and an obstruction to water flow and would slow the overland flow and creek flow;
- DN750 culvert – sizing appears inadequate for the flows as well as potential for overtopping and flooding of the box culverts (residents advised that in high flows the culvert appeared to be inadequate) and exposes the junction to increased flooding;

River Street:

- Residents frontages were flooded during the January 2016 event with standing water building up around 1 and 3 Tasman Highway;
- Creek upstream of box culvert flooded River Street including sewer infrastructure system;
- Significant overland flows pass through 1 and 3 Tasman Highway from the secondary catchment of Saltwater Creek;
- Flooding and overtopping of River Street at road crossing culvert and notable dense reeds upstream and downstream of the culvert;

Maria Street:

- The Saltwater Creek side of Maria Street expands into a flood plain for the creek as it grades down to River Street and Tasman Highway;
- On the north side adjacent to 53 Maria Street is a natural retention pond and flood plain which forms part of the flooded area as noted in Figure 4;
- Council depot and the SES building are located adjacent to the creek; and
- The sewer pump station adjacent to 29 Maria Street was reportedly flooded.

Based on discussions with residents on River Street and Tasman Highway the extent of property flooding during the event was significant but not to extent of the Figure 4 inundation map.

2.5 Site Infrastructure

Figure 5 Stormwater & Sewer Infrastructure

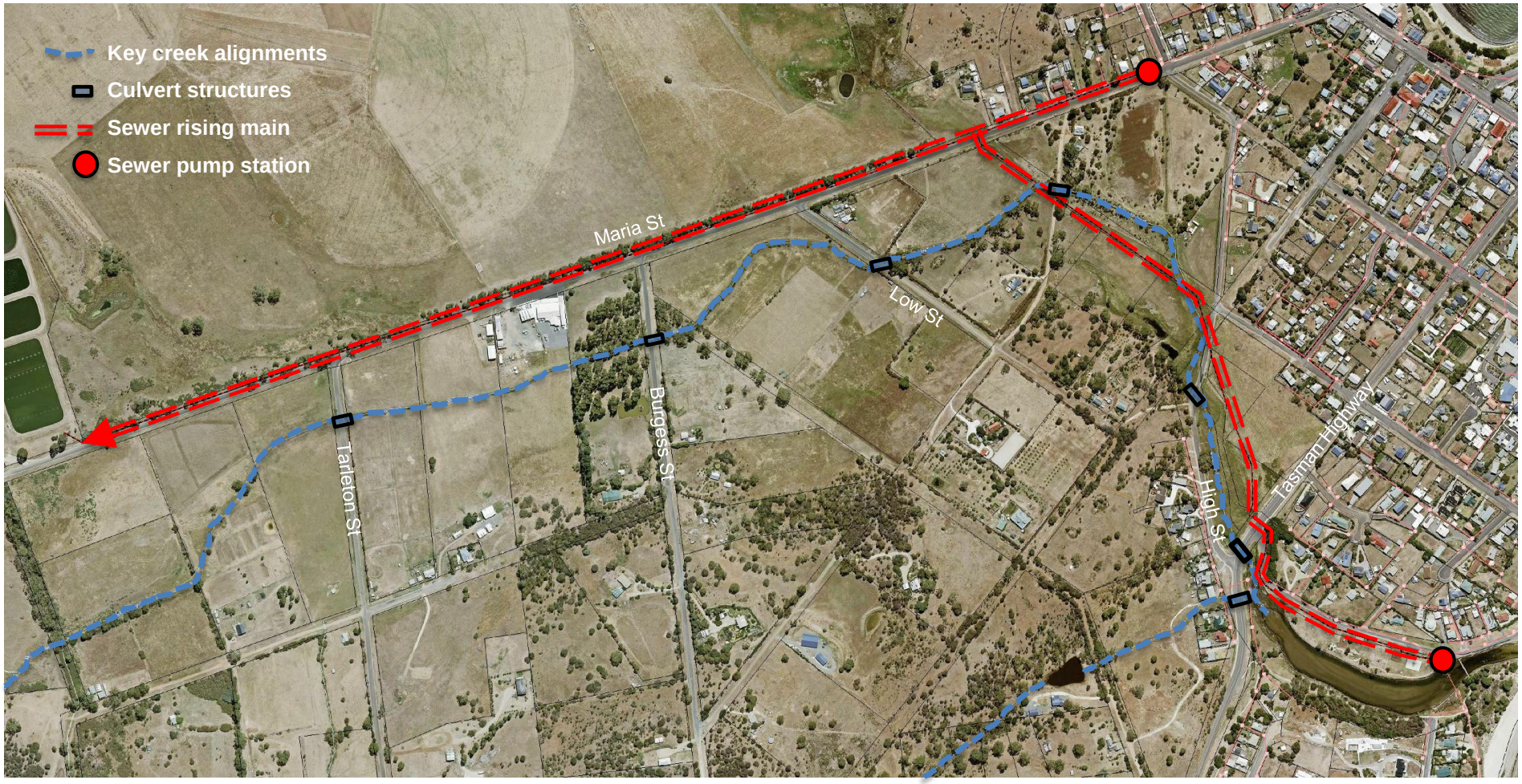


Photo 1 Upgraded Road Culvert Structures (typical)

The road culverts along Saltwater Creek were observed to have been upgraded from the previous 2005 study and were measured for size and features.

The culverts are located at:

- Tarleton Street (upgraded to 2.4m x 1.2m box culverts post 2005 assessment);
- Burgess Street (upgraded as above post 2005 assessment);
- Low Street (upgraded as above post 2005 assessment);
- Dove Lane;
- River Street; and
- Double box culverts and DN700 culvert under Tasman Highway at the junction of River Street.

Figure 6 Tasman Highway and River Street Junction Culverts

The culverts into Saltwater Creek are key controls over flooding along River Street and Tasman Highway properties and hence it is important to establish responsibility for management and maintenance of the inlet and outlets of these structures as well as review of the DN700 culvert for suitability and effectiveness.

3. Catchment Hydrology

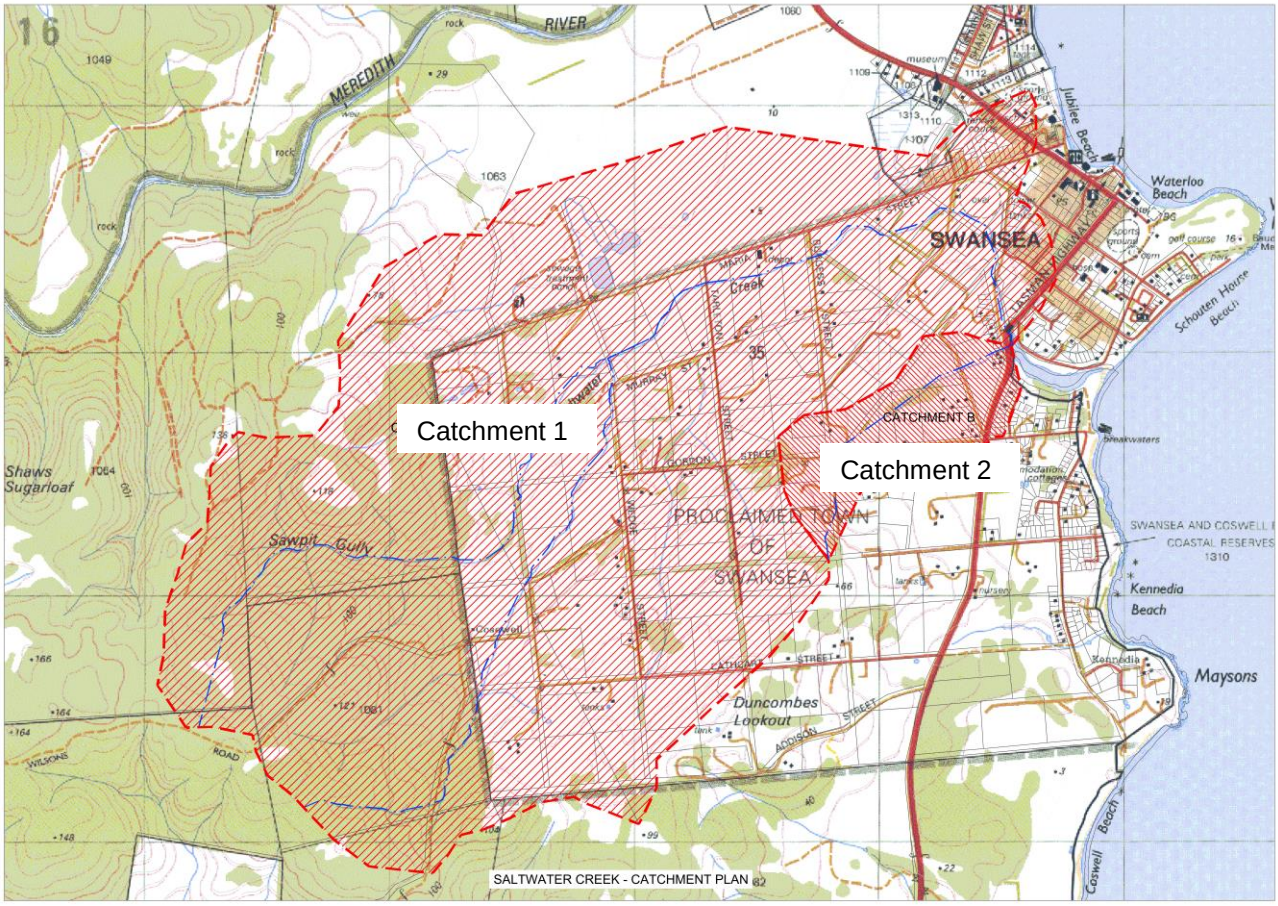
3.1 General

The majority of the study area is rural with the ultimate catchment discharge location the town of Swansea at sea level rising to approximately RL 93 m AHD. The total area being assessed is estimated to be 683 hectares.

Much of land use is rural/farm areas in the upstream, western section of the catchment changing to semi-urban as the creek meanders east/downstream towards Swansea, discharging into Great Oyster Bay, south of the town centre. For modelling purposes, the fraction impervious for the catchment area was set to 5 %.

The contributing catchment area was interpolated from contour data obtained from the LIST Map data and lidar. Based on the topographic information the area of interest receives runoff from two main catchments, the Saltwater Creek (Catchment 1) and a minor tributary of the Saltwater Creek (Catchment 2). The catchment areas defined for the project are shown on Figure 7.

Figure 7 Saltwater Creek Catchment Extents



The following table outlines the catchment details applied for the assessment:

Table 1: Catchment Details

Description	Catchment 1	Catchment 2
Catchment Area	639 ha	44 ha
Stream Length	4,961 m	1,304 m
% Slope	3.89 %	4.20 %
% Impervious	Assumed 5 % (conservative) for total catchment	

3.2 Methodology

This assessment has been undertaken in accordance with Australian Rainfall and Runoff 2016 (ARR'16).

To determine the peak flow, the following methodology was used:

- IFD information was sourced from BOM utilising the new 2016 intensity, frequency, duration data which match the released temporal pattern ensembles for ARR'16;
- Land use information, including surface roughness and infiltration capacity, were derived from an assessment of aerial photography from the List Map, site investigation and ARR Data Hub;
- Various storms were simulated with durations ranging from 30 minutes to 24 hours; and
- The critical storm duration was determined.

3.3 Rainfall Losses

The initial loss represents the wetting of the catchment prior to runoff starting to occur, and the continuing loss represents the ongoing infiltration of water into the saturated soils while rainfall continues.

Initial losses of 10 mm and 0 mm and continuing loss rates of 1.9 mm/h and 0 mm/h were adopted, for pervious and impervious areas, respectively.

3.4 Design Rainfall

The rainfall Intensity-Frequency-Duration (IFD) curves and the storm temporal patterns used for the hydrological analysis were obtained from the Bureau of Meteorology for the ARR'16 data. The assessment was completed for the 5% 2% and 1% AEP design storm events.

3.4.1 Critical Storm Duration

The critical rainfall durations have been calculated by applying the ARR'16 ensemble temporal patterns to the lumped catchment which allowed the identification of the critical duration for each AEP. The results of each of the ensembles and with the mean design storm identified for each ensemble are compared to determine the critical duration

Figure 8: 5 % AEP Design Storms

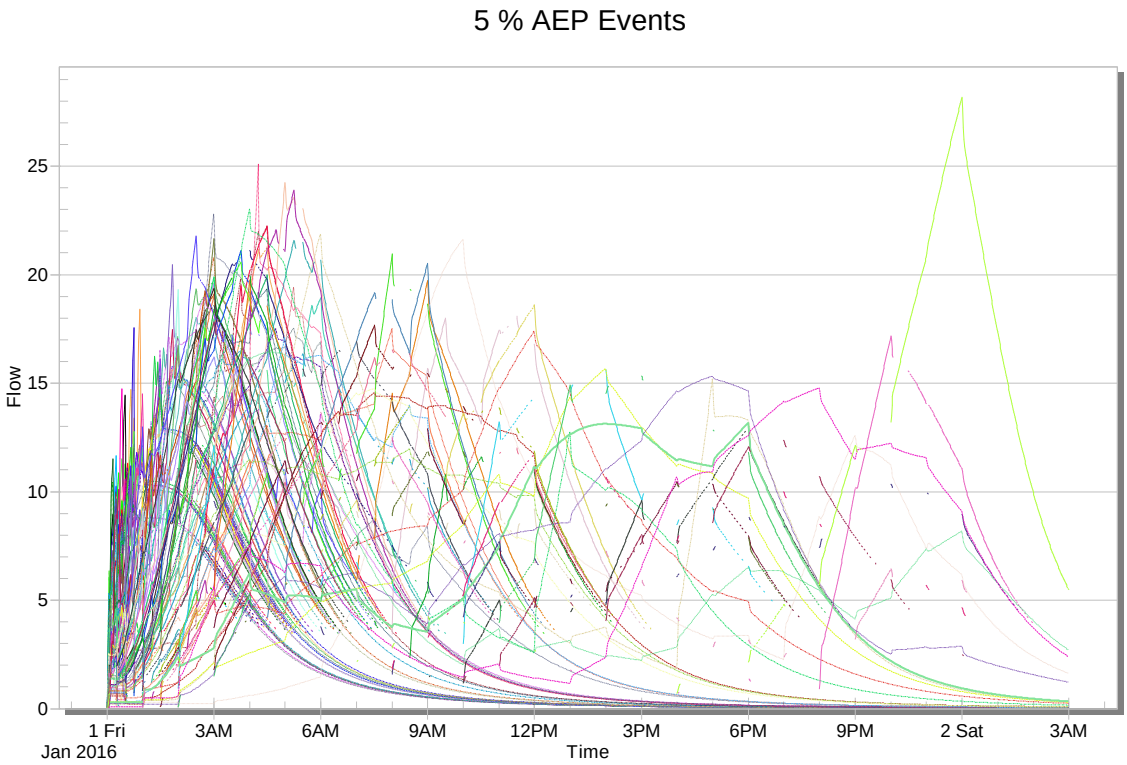


Figure 9: 2 % AEP Design Storms

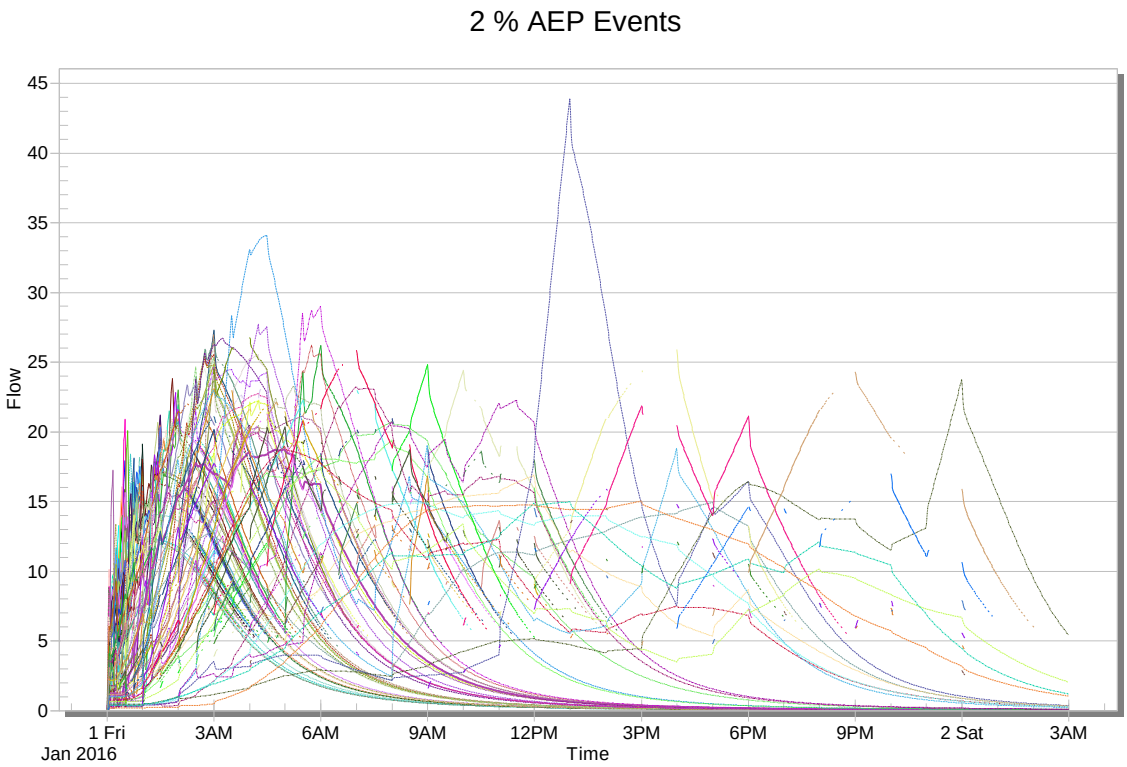
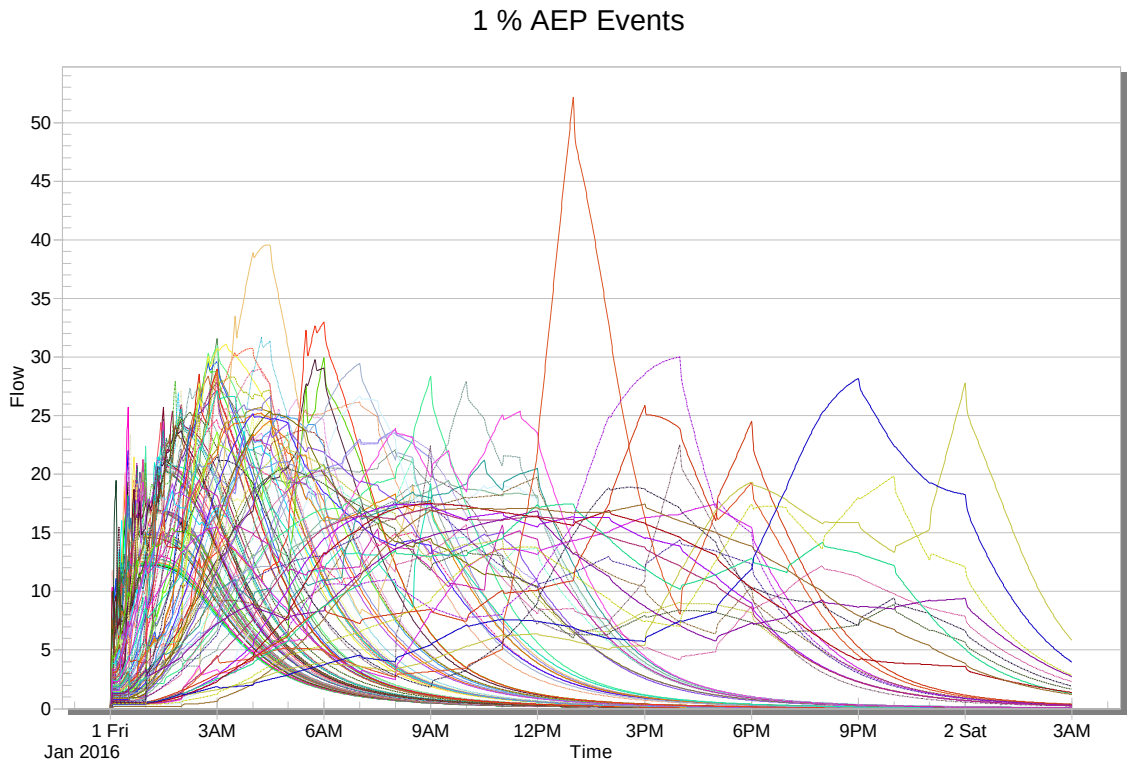


Figure 10: 1 % AEP Design Storm



Statistical analysis of the above figures illustrates that the critical duration for the 5 % AEP ensemble is the 6-hr design storm event, the 2 % AEP ensemble is the 4.5 hr design storm event with the 1% AEP ensemble being controlled by the 4.5 hr duration design storm event. The 1% AEP duration design storm event was then applied to the hydraulic analysis.

Below is a summary of the peak flow for each 5% AEP, 2 % AEP and 1 % AEP.

Table 2: Catchment 1 Results

Catchment 1	5% AEP	2 % AEP	1 % AEP
Peak flow	19.556 m^3/s	21.999 m^3/s	26.387 m^3/s

Table 3: Catchment 2 Results

Catchment 2	5% AEP	2 % AEP	1 % AEP
Peak flow	1.696 m^3/s	2.893 m^3/s	3.046 m^3/s

4. Hydraulic Modelling

A fully dynamic one-dimensional/two-dimensional (1D/2D) hydraulic modelling system has been used to model the flooding behaviour within the catchment. The model can accommodate cross sub-catchment flows and overland flows.

4.1 1D Model Setup

The one-dimensional elements in the modelling included the crossing culverts. The 1D elements were located based on our site investigation along with the data from the previous flood study conducted by GHD in 2005.

4.2 2D Model Setup

The major component of a two-dimensional model set-up is the model grid or topographic grid. The 2d model was applied using a 1m x 1m grid to provide a suitable resolution to define the channel and overland flow paths.

4.3 Hydraulic Model Results

Results have been obtained for the critical duration of the 1% AEP design storm event. The maximum depth results from the model are presented in the figures below for the existing conditions. Note, for ease of viewing the water depth was restricted to a minimum water depth of 0.1 m.

It is observed saltwater creek reaches capacity and overtopping occurs spilling into the surrounding floodplain area encompassed by Tarleton Street, Burgess Street, Low Street, Dove Lane, River Street, Maria Street and Wellington Street.

The hydraulic structures in this 1 % AEP event act as choke points, generally resulting in ponding at the upstream/inlet and overtopping onto the respective road, which then acts as on overland flow path directing run off to the low-lying flood plain surrounds.

The flood maps have been overlayed both the TasWater inundation mapping for cross reference as well as sewer infrastructure to confirm the impact of flooding at the pump stations.

The mapping indicates the following:

- Containment of the Saltwater Creek within its alignment in the upper catchment before minor overtopping of Tarleton Street and extending across a floodplain formation through Maria Street, overtopping Burgess Low and River Street; overtopping Dove Lane
- Extensive build-up of flooding at Tasman Highway and along River Street frontages;
- There is a potential flood threat for properties at the intersection of Sebastian Rise, Maria Street and Wellington Street;
- Flooding of the pump station on Maria Street (consistent with the January 2016 event);
- Flooding of the sewer gravity system and manholes along River Street (refer Figure 13);
- Reasonable overlay comparison to TasWater inundation mapping as shown in Figure 12; and
- Higher resolution of key flood areas of Tasman Highway junction, River Street, Maria Street and Dove Lane (refer Figures 14 and 15).

Figure 11: Overall Flood Area 1% AEP

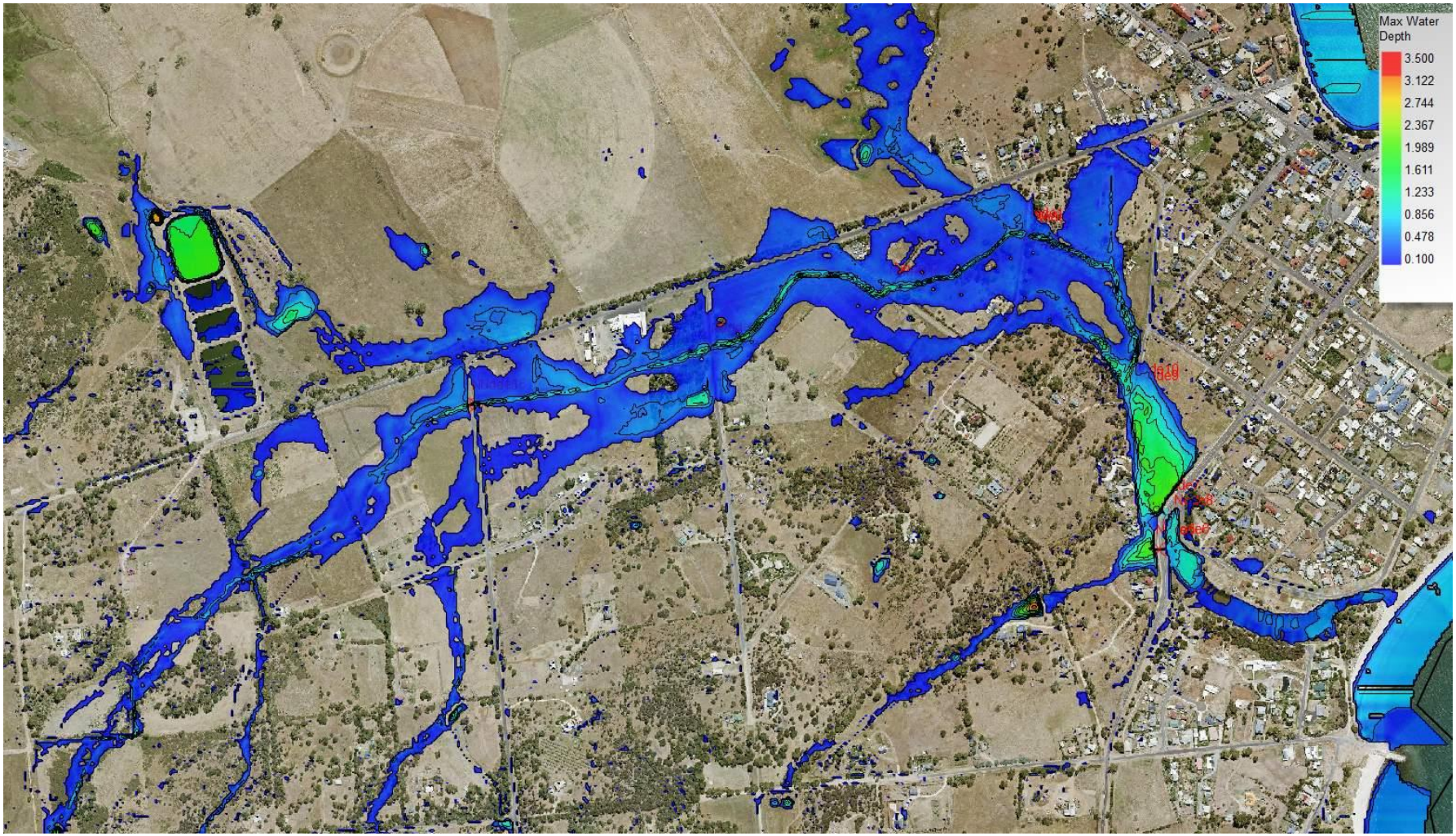


Figure 12: 1%AEP overlayed TasWater Inundation Mapping

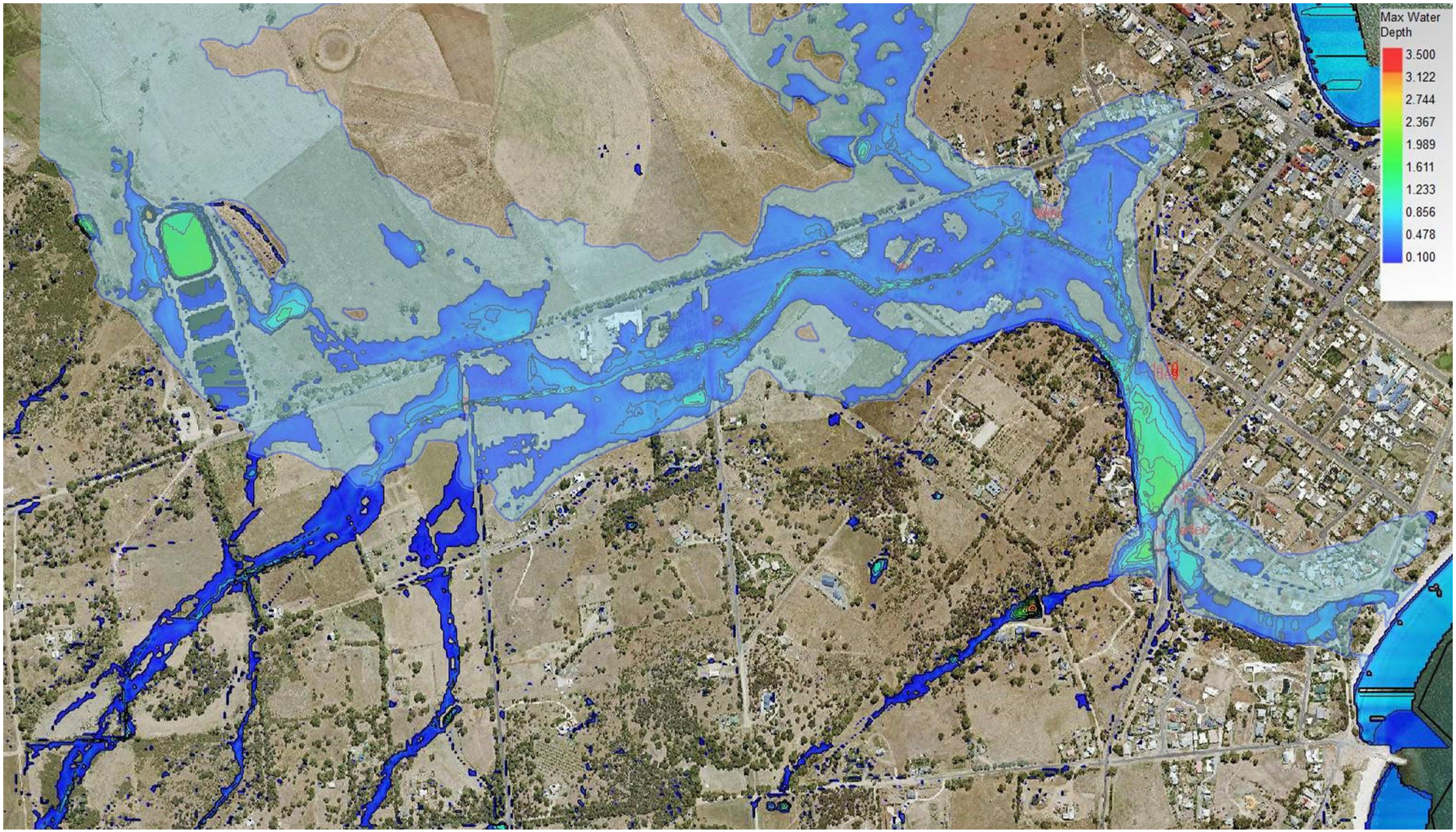


Figure 13: 1%AEP overlayed TasWater Sewer Infrastructure

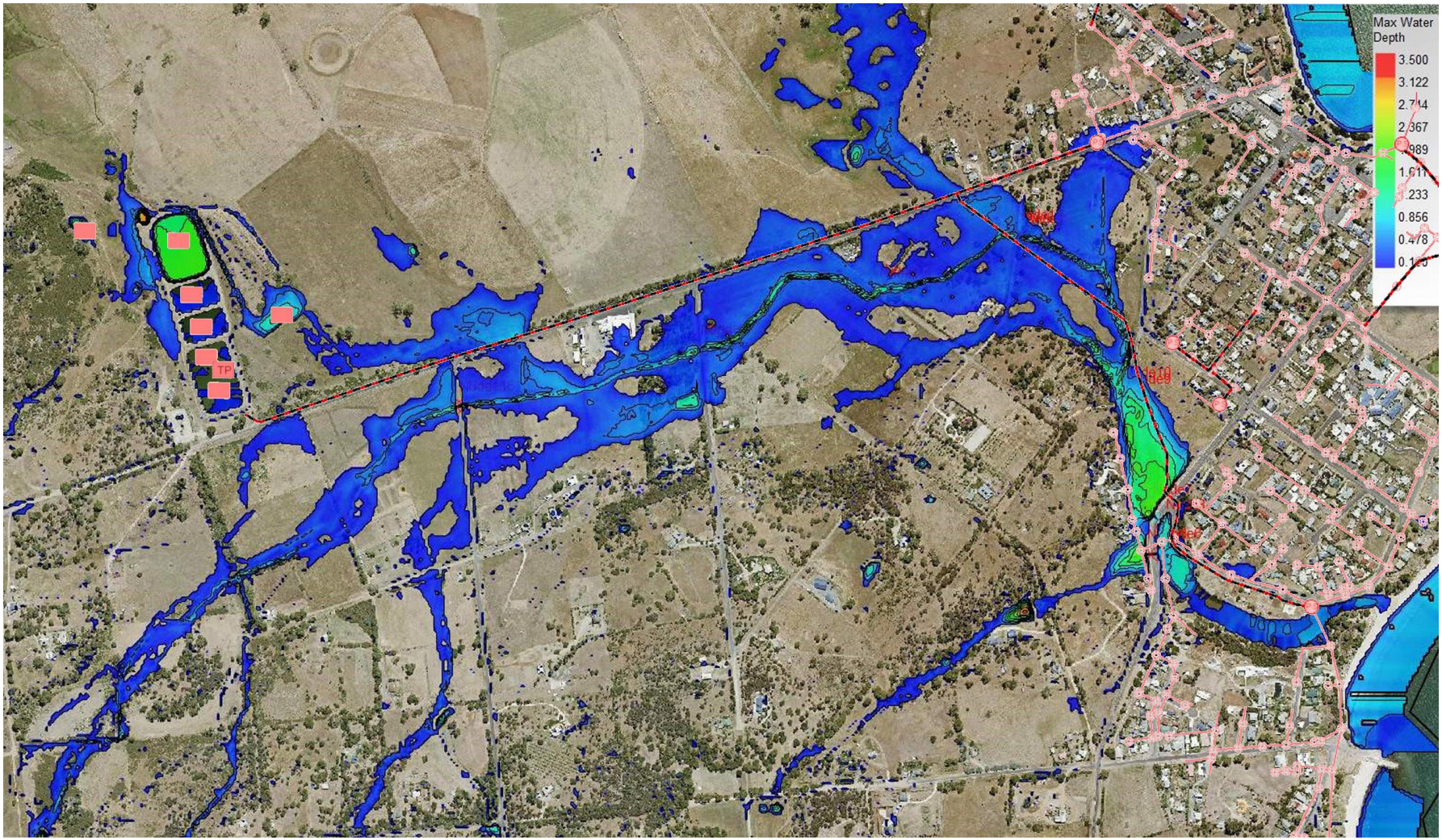


Figure 14: Tasman Highway and River Street Junction

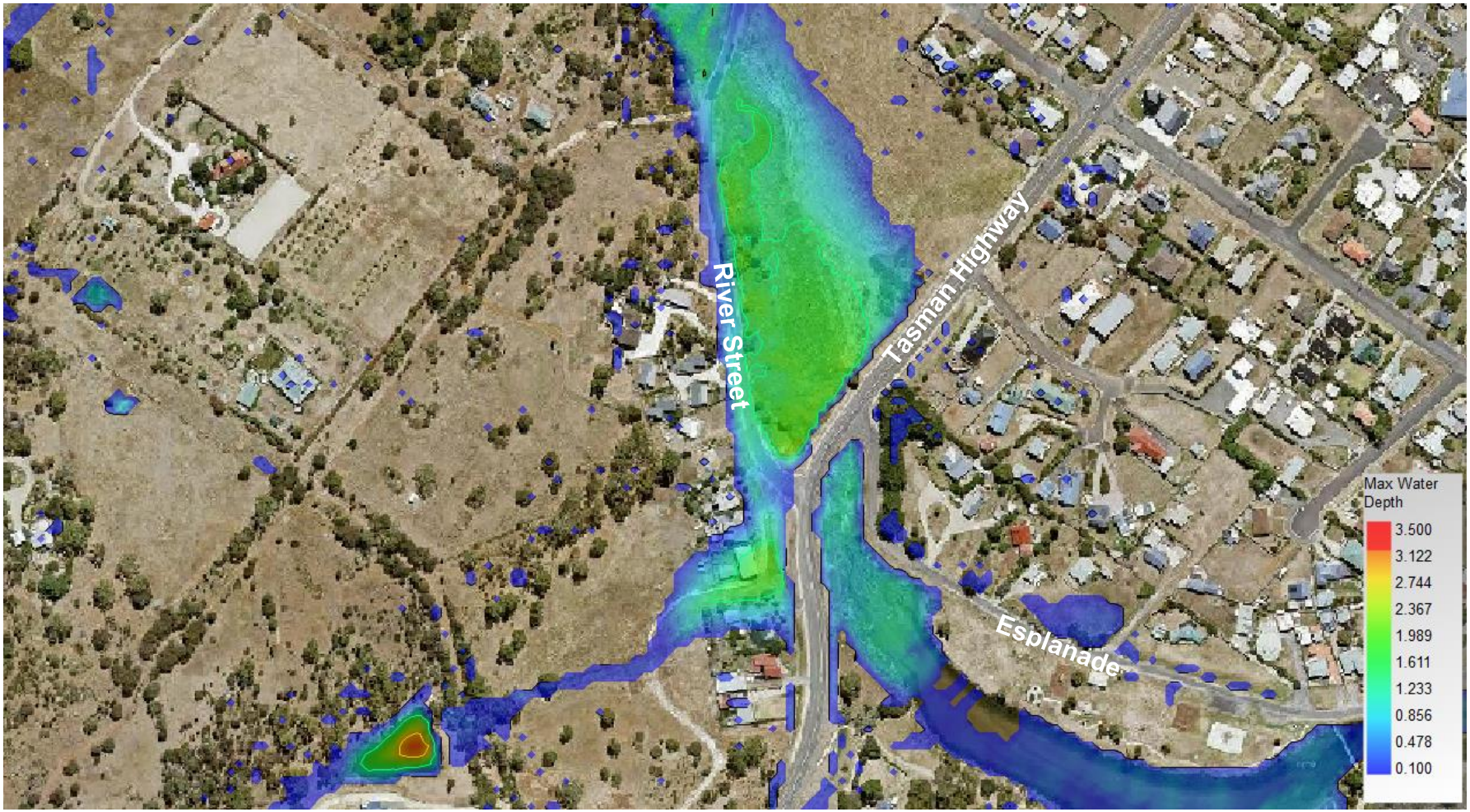
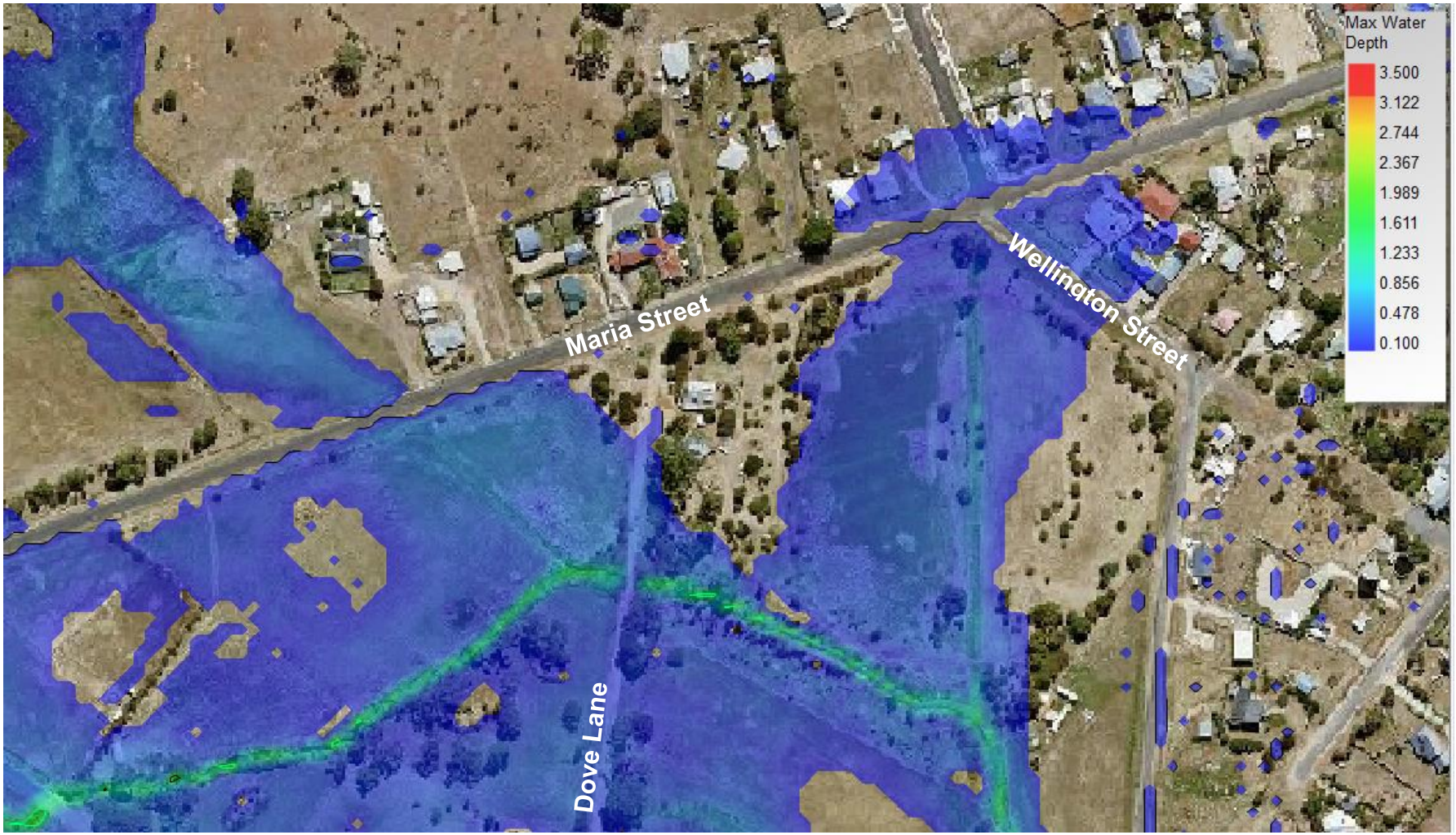


Figure 15: Area encompassed by Dove Lane, Maria Street and Wellington Street



4.3.1 Tasman Highway & River Street Intersection

The results indicate the cross-road culvert and box culverts through the Tasman Highway reach capacity resulting in ponding however there is no indication of overtopping onto the road.

The double box culverts have capacity to service the 1 % AEP event, however blockage due to outlet conditions (sandbar or increased water level during a period of high tide) results in back water conditions upstream of Tasman Highway.

The wetland/reed area encompassed by River Street, Tasman Highway and Julia Street acts as an attenuating/retention pond. However, the low-lying River Street is overtopped from the Tasman Highway intersection northwards with water depth on the road ranging from 0.2 m 1.3 m.

The model has identified areas at the frontages of 4,8 and 10 River Street with water depths greater than 1.2 metres.

This condition is further exacerbated by the secondary tributary that is serviced by the 750 mm diameter cross road culvert under the Tasman Highway before the River St intersection. Inlet conveyance capacity is exceeded in the 1 % AEP design event with resulting ponding affecting 1 Tasman Highway, 3 Tasman Highway and 2 River Street.

The water depth at 1 Tasman Highway reached depth of 1.84 m consistent with anecdotal observation of the 29/30 January 2016 large rainfall event (220mm in 2 days).

Table 4: Structure Performance under 1 % AEP conditions

Structure Location	Max Flow (m^3/s)	Velocity (m/s)	Road Level (m)	Water Depth (m)	Overtopped (m)
Tarleton St	9.177	5.650	8.840	0.000	0.000
Burgess St	4.743	2.920	6.610	6.980	0.370
Low St	0.716	0.590	4.820	6.190	1.370
Dove Lane	0.881	1.940	4.700	5.420	0.720
River St	1.094	3.760	3.270	4.170	0.900
Tasman Highway (box culverts)	29.231	2.850	4.160	0.000	0.000
Tasman Highway (750 mm)	1.116	2.700	3.930	0.000	0.000

As an initial flood model the results provide suitable inputs for development of flood management options and mitigation for those high impact areas and critical infrastructure.

The majority of flooding impacts in the 1% AEP are related to the constraints of the Saltwater Creek outlet structure and sea level as well as restrictions of culverts as highlighted.

5. Conclusions

This report details the methodology and preliminary results of the stormwater aspects for the Flood Study investigation at Saltwater Creek, Swansea. The quantity modelling has been completed using XPSTORM in accordance with the requirements of Australian Rainfall and Runoff.

The area and infrastructure impacted by flooding requires consultation with the major stakeholders within the region including:

- Glamorgan Spring Bay Council (planning, infrastructure management and maintenance);
- Residents of flood affected areas;
- Crown Land and Parks;
- TasWater; and
- Department of State Growth.

We would recommend that GSBC seeks input from both TasWater and Department of State Growth for future works as key contributors and infrastructure representatives of the impacted areas of Saltwater Creek.

5.1 Preliminary Recommendations for Flood Management & Mitigation

The following recommendations are put forward as management and mitigation controls to flood impacts to infrastructure:

Modelling analysis:

- Further detailed flood modelling of the catchment area is recommended using more enhanced site data and inputs including more detailed land and feature survey data of key areas and infrastructure such that the preliminary models can be updated and adjusted to suit;
- Detailed survey of the catchment area, hydraulic infrastructure, Saltwater Creek cross sections and roads to create a highly accurate, gauged flood model consistent with real world events and historical outcomes;
- Review of flood model with varying sea and storm level increases for 2100 or agreed period events;
- Modelling of options for flood mitigation including the following options:

Optioneering of Infrastructure to Mitigate effects of extreme floowing:

- Development of an options study into the following infrastructure improvements based on infrastructure costs and mitigation effects to assist GSBC on the most cost-effective solution including:
  - Raise River Street and its intersection with Tasman Highway to act as a bund/embankment to mitigate overtopping of water onto the road and spillage into properties on the western side of River Street;
  - Upgrade River Street cross road culvert to convey 1 % AEP event to mitigate ponding and overtopping onto River Street;
  - Upgrade 750 mm diameter cross road culvert to convey a 1 % AEP event to mitigate ponding and potential overtopping onto Tasman Highway and flooding of properties on Tasman Highway;
  - Provide flood plain relief utilising north side of Maria Street below waste treatment facility; and
  - Options to redirect stormwater flow down Gordon Street.

Maintenance requirements of creeks:

- Regular maintenance of natural channels to clear out vegetation, reeds, particularly at culvert inlet and outlets to prevent blockages, ponding and back water effects; and
- Clearing of gorse and dense weeds areas along Saltwater creek adjacent to Tasman Highway.

From: Mick Purves
To: "adam@galaestate.com.au"
Subject: Rural zoning for your property and Priority Vegetation overlay
Attachments: image001.jpg
Glamorgan Spring Bay Draft LPS - Attachment A - TPC Directions Schedule, 18 December 2020.pdf
draft response - Greehill directions post hearings.pdf

Good morning Adam

The Commission held its hearings into the Glamorgan Local Provisions Schedule and issued directions on 18 December, as attached for your information (refer Attachment A).

Direction 2 requires Council to provide advice about application of the Priority Vegetation overlay to your lands that you asked to be rezoned Rural as part of the process. Attached is a draft response to the issue, which includes an extract of the mapping for the subject property that informs the Priority Vegetation Overlay.

Your supporting reports relied on UPI numbers to identify properties, which sought rezoning of the land north of the red line on Figure 1. This is the same land that the priority vegetation overlay would need to apply to.

The Commission asked whether you agreed with application of the Priority Vegetation overlay to the rezoned lands, as noted at b. on the attached document.

The Guidelines require that the Priority Vegetation Areas are applied within the Rural zone. If you agree to application of the Priority Vegetation Overlay, the Commission can consider the rezoning of the land. Owners consent is required for this type of change to avoid a convoluted process established under the Act that requires notification of the change for another 60 days.

Please advise whether you agree to applying the Priority Vegetation Overlay as noted in the attached draft response so that I can confirm my response to the Commission, which must be submitted by 15 January. I require your response by 12 January to allow the delegate to authorise my response.

If you have any questions, please call me on 0418 597 997 or email.

Thanks and regards

Mick Purves
Senior Planning Consultant
(3 days per week)

Glamorgan Spring Bay Council
PO Box 6
TRIABUNNA 7190
E: mick.purves@freycinet.tas.gov.au

Direction 2 Adam Greenhill, representation 15

a. *Planning Authority to confirm the proposed application of the Priority Vegetation Area overlay to 56 Glen Gala Road folios of the Register 202099/1 and 102171/1 (part), and Lake Leake Road folio of the Register 144140/1 if it was determined to apply the Rural Zone (representation 15).*

The priority vegetation overlay should be applied to the subject properties in accordance with the Regional Ecosystem Model REM1804 that supports the Natural Assets Code. This is shown on Figure 1. The boundary between UPI 0623 and 0624 should correspond with the change between Rural and Agriculture zones, which is approximated by the red line on Figure 1.

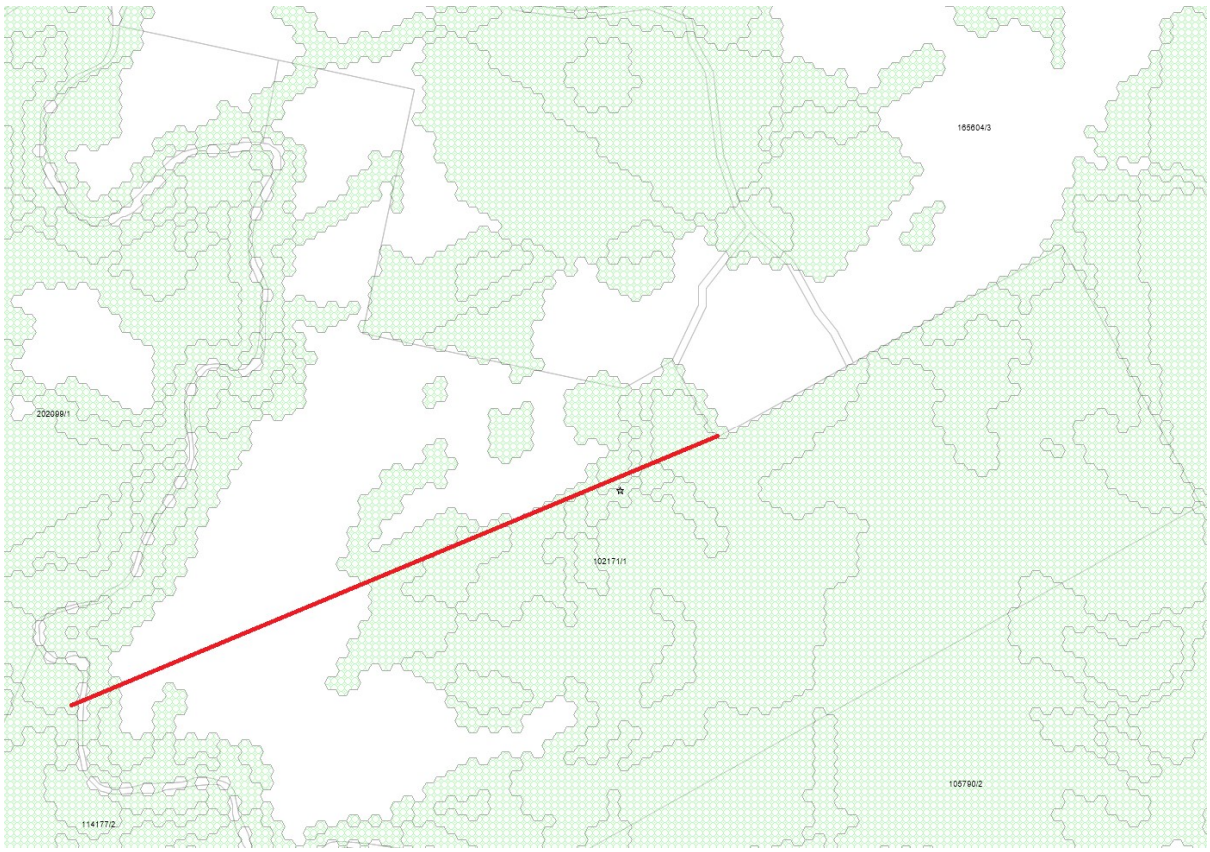


Figure 1 - Greenhill properties with REM1804 Priority Vegetation overlay

b. *Confirm that the owner of these properties agrees with application of the Priority Vegetation Area overlay.*

The owner advised that

c. *Confirm how the split-zoning of folio of the Register 102171/1 would be delineated.*

The LIST identifies that FR102171/1 comprises two original grants. The Pinion Advisory report identifies part of the subject title by the UPI reference 0624, as shown on the Tasmap series. The LISTmap service identifies the south western corner of 0624 as follows:

GDA 94:

Lat, Lon (DD): -41.98255 148.01401

Lat, Lon (DMS):	-41°58'57.2" 148°0'50.4"
Lat, Lon (DDM):	-41°58.95' 148°0.84'
MGA Zone 55:	584001E 5351664N
MGA Zone 55:	840516 (6 Figure Reference)
Web Mercator:	16476844.06E -5158365.49N