



# STORMWATER IN NEW DEVELOPMENT POLICY

TITLE	STORMWATER IN NEW DEVELOPMENT POLICY
RESPONSIBLE PERSON	MANAGER PLANNING
APPROVED BY COUNCIL	1 AUGUST 2023
RESOLUTION NO	35/2023
AMENDED ON	--- -----
RESOLUTION NO	___/_____
REVIEW DATE	1 AUGUST 2027

## PURPOSE

The policy seeks to:

1. Provide a framework for the regulation of stormwater from new development through the Tasmanian Planning Scheme - Sorell and the *Urban Drainage Act 2013*.
2. Ensure the framework is consistent, transparent, repeatable and understandable to the community, developers and suitably qualified persons.
3. Support the strategic management of stormwater assets.
4. Ensure stormwater from new development is of an acceptable quality and does not unreasonably impact downstream receiving waters, particularly waters where there are high conservation values.
5. Ensure stormwater from new development is of a quantity that can be conveyed within the stormwater network.
6. Manage the variable level of stormwater infrastructure across the Southern Beaches and avoid unplanned infrastructure upgrades.
7. Minimise the risk of urban flooding due to stormwater.
8. Ensure that where on-site stormwater disposal is required that the site is suitable and will not impact on-site wastewater management systems or existing inundation issues.
9. Ensure a high level of consistency in the construction, installation or maintenance of public stormwater infrastructure and of private stormwater infrastructure where directly relevant to the performance of the public stormwater network.

## BACKGROUND

Stormwater from new development is regulated by the *Land Use Planning and Approvals Act 1993* (LUPAA) and the *Urban Drainage Act 2013* (UDA) through parallel systems.

The Tasmanian Planning Scheme – Sorell consists of two parts; the State Planning Provisions (SPPs) and the Local Provisions Schedule (LPS).

The SPPs enable stormwater conditions to be imposed on permits, which in practice is informed by the *Temwood* test being that a condition must:

- be for a planning purpose and not for an ulterior purpose;
- fairly and reasonably relate to the proposed development and;
- not be so unreasonable that no reasonable planning authority could have imposed it.

The LPS includes a specific area plan (SAP) for stormwater and wastewater in the Southern Beaches area. The SAP provides assessment criteria to determine if a development ought to be approved or not and, if so, under what conditions.

The UDA provides a General Managers consent process for any new connection to the stormwater network and for any increase in discharge. The outcomes of the UDA are:

*(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.*

Table 1 outlines where the planning scheme and UDA apply.

Table 1. Spatial extent of stormwater systems			
Area	SPPs (ability to condition) apply?	SAP applies?	UDA applies?
Serviced Urban Areas – Sorell & Midway Point	Yes	No	Yes
Unserviced Urban Areas – Southern Beaches	Yes	Yes	Yes
Rural Living Areas	Yes	Partly	Partly
Rural Areas	Yes	No	No

## REFERENCES

- Tasmanian State Stormwater Strategy
- Tasmanian Stormwater Policy Guidance and Standards for Development (LGAT)
- Tasmanian Subdivision Guidelines
- Tasmanian Municipal Standard – Drawings
- Tasmanian Municipal Standard – Specifications
- Sorell Council Stormwater System Management Plan May 2020
- Sorell Council Stormwater Asset Management Plan June 2014 (to be updated in 2022)
- Sorell Council Transport Asset Management May 2021
- Sorell Council Strategic Plan 2019 - 2029

## SCOPE

1. This policy applies to all development within the municipal area that requires the management of stormwater.
2. The assessment of stormwater in new development has regard to the entire downstream stormwater network where reasonable and appropriate.

## DEFINITIONS

Flood-prone area	<p>means land:</p> <p>(a) shown on an overlay map in the Sorell Local Provisions Schedule as within a flood-prone hazard area; or</p> <p>(b) land Council reasonably believes to be subject to risk from flood or has the potential to cause increased risk from flood.</p>
Flood hazard report	<p>means a report prepared by a suitably qualified person for a site using current Australian Rainfall and Runoff scenario's and climate change projections, that must include:</p> <p>(a) details of, and be signed by, the person who prepared or verified the report;</p> <p>(b) confirmation that the person has the appropriate qualifications and expertise;</p> <p>(c) confirmation that the report has been prepared in accordance with any methodology specified by a State authority; and</p> <p>(d) conclusions based on consideration of the proposed use or development:</p>

	<ul style="list-style-type: none"> <li>(i) as to whether the use or development is likely to cause or contribute to the occurrence of flood on the site or on adjacent land;</li> <li>(ii) as to whether the use or development can achieve and maintain a tolerable risk for the intended life of the use or development, having regard to: <ul style="list-style-type: none"> <li>a. the nature, intensity and duration of the use;</li> <li>b. the type, form and duration of any development;</li> <li>c. the likely change in the level of risk across the intended life of the use or development;</li> <li>d. the ability to adapt to a change in the level of risk;</li> <li>e. the ability to maintain access to utilities and services;</li> <li>f. the need for flood reduction or protection measures beyond the boundary of the site;</li> <li>g. any flood management plan in place for the site and/or adjacent land; and</li> <li>h. any advice relating to the ongoing management of the use or development; and</li> </ul> </li> <li>(iii) any matter specifically required by the Flood-Prone Areas Hazard Code of the Tasmanian Planning Scheme - Sorell.</li> </ul>
Major Stormwater System	Means the combination of overland flow paths (including roads and watercourses) and the underground reticulation system designed to provide safe conveyance of stormwater runoff and a specific level of flood mitigation.
Minor Stormwater System	Means the stormwater reticulation infrastructure designed to accommodate more frequent rainfall events (in comparison to major stormwater drainage systems) having regard to convenience, safety and cost.
Private Stormwater System (as defined by the <i>Urban Drainage Act 2013</i> )	Means an installation on a property, that: <ul style="list-style-type: none"> <li>(a) is not part of the public stormwater system; and</li> <li>(b) is used for collecting or disposing of stormwater; and</li> <li>(c) comprises any or all of the following: <ul style="list-style-type: none"> <li>(i) roof gutters and downpipes;</li> <li>(ii) rainwater tanks;</li> <li>(iii) surface channels;</li> <li>(iv) kerbs and gutters;</li> <li>(v) subsoil drains and stormwater drains;</li> <li>(vi) any inlet pits which are used, or intended to be used, for the conveyance of stormwater to a disposal system.</li> </ul> </li> </ul>
Public Stormwater System (as defined by the <i>Urban Drainage Act 2013</i> )	Means <ul style="list-style-type: none"> <li>(a) the whole, or part, of a waterway; and</li> <li>(b) any infrastructure used for: <ul style="list-style-type: none"> <li>(i) the collection or storage of stormwater, including connection points; or</li> <li>(ii) the conveyance or reticulation of stormwater; or</li> <li>(iii) the treatment or disposal of stormwater, including any outfall pipe or other work that stores or conveys water leaving the infrastructure that is used for the treatment and or the disposal of stormwater;</li> </ul> </li> </ul>

	<p>but does not include:</p> <p>(c) any private stormwater system, including any pipe, fitting or apparatus that is situated upstream of a connection point to a public stormwater system; or</p> <p>(d) infrastructure situated entirely within one property and not connected to any other infrastructure situated within another property;</p>
Sorell Council Stormwater System	Means of pipes, pits, manholes and water sensitive design installations owned by Sorell Council and any natural watercourse receiving runoff from a pipe or water sensitive design installation owned by Sorell Council, excluding assets managed under the any adopted Transport Asset Management Plan.
Roadside Table Drain	Means a construct swale or open channel parallel to a public road for the purposes of draining a road and managed under any adopted <i>Transport Asset Management Plan April</i> .
Suitably Qualified Person	A professional engineer currently practising with relevant CPEng or RPEng or NER or RPEQ accreditation or a person who in respect to the type of work to be undertaken can adequately demonstrate relevant academic qualification, suitable professional competency, and an appropriate level of professional indemnity and public liability insurance.

## OUTCOMES

### A. Design Quality and Quantity

#### A1 Stormwater System Design

*The design of stormwater infrastructure is to be of a high standard in order to minimise the risk that new stormwater assets require replacement or upgrade earlier than their normal useful life.*

- A1.1 As a minimum, a new major stormwater system shall be designed for the safe conveyance of the 1% AEP event with an allowance for climate change in accordance with ARR Scenario RCP 8.5 for year 2090 for the major stormwater system or any land and/or current industry standard.
- A1.2 As a minimum, a new minor stormwater system shall convey a 5% AEP reducing to 2% in an industrial area.
- A1.3 Fraction impervious values for sizing of a minor or major stormwater system are set out in Table 2 unless otherwise agreed. Full development of the catchment must be assumed:

General Business Zone	1.0
Local Business Zone	0.9
Light Industrial Zone	0.9
Utility Zone	0.9
General Residential Zone – Single Dwelling	0.6
General Residential Zone – Multiple Dwelling	0.75
Low Density Residential Zone	0.5
Community Purpose Zone	0.5

Recreation Zone	0.5
Rural Living Zone	0.1
Other Zones	0.05
Note: derived from LGAT policy guidance	

A1.4 Planning application submission documentation must include:

- a) All above and below ground existing and proposed features on the site including any overland flow path, drainage reserve or easement;
- b) Topography including 1m contours for a lot less than 2000m<sup>2</sup> or 5m if larger;
- c) Natural drainage lines, watercourses and wetlands on or adjacent to the site;
- d) Proposed stormwater connection point and private infrastructure;
- e) Existing and proposed buildings, footpaths, vehicle accesses and car parking.

A1.5 Detailed design submission requirements must be in accordance with the Tasmanian Subdivision Guidelines as published by the *Local Government Association of Tasmania* and/or *Institute of Public Works Engineering Australasia*.

## A2 Quality Treatment

Discharge from stormwater infrastructure is to minimise the risk of:

- Harm or degradation of natural values due to pollutants; and
- Increased maintenance costs due to sedimentation.

A2.1 As a minimum, new development must comply with the targets set out in Table 2.

Development type	Applicable Lot Size	Impervious Surface	Requirement
New buildings on vacant land	Less than two hectares	Up to 500m <sup>2</sup>	Nil
New buildings on vacant land	Greater than two hectares	Up to 1000m <sup>2</sup>	Nil
Additions to existing development	Less than two hectares	If existing greater than 500m <sup>2</sup> , up to 100m <sup>2</sup> more than impervious surface at 22 February 2022.	Nil
Subdivision using an existing road creating no more than two additional lots	Any	NA	Nil
All others	As per the State Stormwater Strategy 90% reduction (*) in litter and gross pollutants 80% reduction in total suspended solids (TSS) 45% reduction in total phosphorus (TP) 45% reduction in total nitrogen (TN) Higher requirements may apply to sites draining to a RAMSAR wetland		
(*) Reductions are to the average annual load based on typical urban stormwater concentrations			

- A2.2 The quality targets may be achieved through a contribution to Council.
- A2.3 The amount of the contribution shall be based on the amount of treatment required for the development and shall be no less than \$2,000.00 per equivalent stormwater tenement and paid prior to first use / sealing of title.
- A2.4 For staged development, the timing of interim and final quality treatment is at the discretion of Council.
- A2.5 New outlets to the Orierton Lagoon must comply with any applicable reserve management plan.
- A2.6 Stormwater treatment assets to be transferred to Council must be provided with safe and convenient vehicular access.

### *A3 Quantity Management*

*Stormwater discharge does not exceed the capacity of the downstream network to safely convey stormwater and natural runoff.*

The flow chart provided in Attachment 1 provides an overview of the decision-making process.

- A3.1 Development of a single dwelling, or equivalent with a total impervious surface less than 300m<sup>2</sup>, is exempt from quantity management requirements.
- A3.2 Development that discharges stormwater directly to a natural watercourse is exempt from quantity management requirements.
- A3.3 Where capacity exists in the public stormwater system, any increase in stormwater runoff must be discharged to that system.
- A3.4 Where capacity does not exist in the public stormwater system, the developer must:
  - (a) Upgrade the public stormwater system to provide capacity; and/or
  - (b) Limit post-development peak flows to pre-development conditions; and/or
  - (c) Contribute to future upgrades by Council.

Note: in the township of Sorell, the developer charge will apply.

- A3.5 Where an increase in stormwater quantity into a public stormwater system will increase a known flood risk, irrespective of capacity, the developer must:
  - (a) Upgrade the public stormwater system to mitigate flood risk; and/or
  - (b) Limit post-development peak flows to pre-development conditions; and/or
  - (c) Contribute to future upgrades by Council.
- A3.6 The amount of any contribution is set at Section D.
- A3.7 The General Manager has discretion to require either an upgrade, detention and/or contribution having regard to capacity of existing or planned infrastructure, the timing of planned infrastructure, flood risk and reasonable opportunities to improve the stormwater network over time.

## B. Lot Connection Design & Onsite Disposal

*Lot connections and onsite management systems are to a satisfactory and consistent standard and reduce the risk to life and property onsite and downstream of the site.*

### *B1 Connection to reticulated main*

- B1.1 A maximum of one connection per lot.
- B1.2 Lot connections must be in accordance with Tasmanian Standard Drawings TSD-SW25-v2, TSD-SW26-v2, TSD-SW27-v2, or TSD-SW29-v2.
- B1.3 Stormwater connections must be undertaken by a suitably qualified contractor at the owners expense.

### *B2 Discharge to Road Side Table Drain*

- B2.1 Discharge, without detention, to road side table drain will not be approved if:
  - (a) The drain is less than 450mm deep and/or less than 1200mm wide between the site and the outfall; or
  - (b) The drain discharges to or through an area of known flood hazard.
- B2.2 Lot connections to an open drain managed by Council or roadside table drain must include a concrete endwall equivalent to a Hudsons CP6105 subsoil endwall installed flush to the table drain wall.



SUBSOIL END WALL		WIDTH	LENGTH	HEIGHT
CP6100	SUBSOIL ENDWALL 100mm	325	350	355
CP6105	SUBSOIL ENDWALL 150mm	325	350	355
CP6110	SUBSOIL ENDWALL 225mm	325	350	355

\*Strip Drain Insert / Blockout available if required

Figure 2. Endwall specification (source <https://hudsoncivil.com.au/wp-content/uploads/2020/02/WINGWALLS-ENDWALLS.pdf>)

### *B3 On-Site Disposal*

- B3.1 On-site disposal may occur where some or all of the site cannot be drained by gravity to the public stormwater network due to either topography or insufficient capacity in the public stormwater system
- B3.2 A system design and report from a suitably qualified person must demonstrate that the site is suitable for onsite stormwater disposal and that the system is designed and managed to minimise the risk of failure.
- B3.3 A system design and report must take into consideration:
  - (a) The soil permeability and depth;
  - (b) Seasonal water table;
  - (c) Rainfall intensity and duration;
  - (d) Inundation risk;



- (e) Additional stormwater detention;
- (f) Period of time that the site will be inundated by a 1% and 5% AEP event; and
- (g) Impact on any on-site wastewater management system.

#### *B4 Drainage to a natural watercourse or open drain*

- B4.1 For a single equivalent stormwater tenement, direct discharge to a watercourse must include energy dissipation to reduce velocity and minimise erosion or other impacts to the watercourse.
- B4.2 Suitable energy dissipation include:
- rip-rap; or
  - bio-retention swales; or
  - headwalls with baffle blocks or equivalent dissipater.
- B4.3 Direct discharge to a watercourse must include energy dissipation to reduce velocity and minimise erosion or other impacts to the watercourse together with any necessary detention devices determined on a case-by-case basis.

#### *B5 Pumped Systems*

- B5.1 Pumped systems may be appropriate where they provide a lower level of risk to downstream infrastructure, property or receiving waters relative to other methods of disposal or management.
- B5.2 Pumped systems must be designed by a suitably qualified person and be designed and maintained to minimise risk of failure and a Form 46 (Schedule of Maintenance – Prescribed Essential Building Services) is to be attached to the Occupancy Permit.

#### *B6 Driveway Runoff*

- B6.1 In a serviced area, driveways and uncovered car parking areas exceeding 100m<sup>2</sup> per site must drain to one or more grated pits and channels and drained to the lot connection.
- B6.2 In an un-serviced area, sealed driveways and uncovered car parking areas exceeding 100m<sup>2</sup> per site must drain one or more grated pits and channels and drained to the road.
- B6.3 In an un-serviced area, gravel driveways and uncovered car parking areas may drain to the road in a manner that does not cause give rise to siltation or sediment runoff or may be retained on site.

## C. Subdivision Design & Construction

*The following requirements are in addition to the Tasmanian Subdivision Guidelines and ensures a satisfactory standard of subdivision design and construction.*

- C1.1 Unless prevented by existing site constraints, any existing or proposed major stormwater system is to be contained within a road reservation, public land or natural waterway.
- C1.2 A stormwater CCTV conduit inspection and report prepared by a recognised provider is required at the completion of all new rigid underground stormwater infrastructure.
- C1.3 Any subdivision of five or more lots partly or wholly within an flood-prone area must provide a post-subdivision flood hazard report detailing minimum floor levels or other mitigation measures as appropriate. This report must be provided prior to sealing the final plan for the relevant stage(s).
- C1.4 The use of rainwater tanks to manage stormwater quantity that exceeds the existing capacity of the public stormwater system is to be avoided wherever practicable given the lack of effective and cost-efficient control over privately owned assets.

## D. Stormwater User-Pays Development Charge and Other Contributions

*The capacity utilisation cost of new development is fairly apportioned to enable system upgrades to proceed in a timely and orderly manner.*

- D1.1 A development charge of \$5,016, increased with Hobart CPI, is required for each of the following circumstances:
  - a) all new subdivision lots on a per additional lot basis in the township of Sorell that utilises part of the existing piped network;
  - b) all additional multiple dwelling units on per unit basis in Sorell;
  - c) all new development that exceeds a 50% site coverage in Sorell;
  - d) all new non-residential development with a impervious surface of more than 350m<sup>2</sup>.
- D1.2 The charge is payable upon the release of title for a new lot or occupancy of a new building or addition to new building.
- D1.3 Any subdivision that does not connect upstream of existing Council assets in the township of Sorell is exempt.
- D1.4 Contributions on a case-by-case basis may be accepted or required having regard to:
  - a) the existing network capacity and the additional stormwater quantity associated with the development; or
  - b) future upgrades identified in financial or asset management plans; and
  - c) shall be equivalent to at-least the design and construction cost of measures to manage additional stormwater quantity onsite.

## E. Compliance with Existing Rainwater Tank Covenants in Serviced Areas

- E1.1 Clause D1.4 enables variation from the specific terms of any existing rainwater tank covenant in order to provide a greater level of consistency across variable subdivision covenant requirements to assist in the management of the Sorell Council Stormwater System.
- E1.2 The principal objective for the use of rainwater tanks is to mitigate initial peak discharge to Council's stormwater network through onsite detention.
- E1.3 The secondary objective is to reduce mains water usage and encourage good use of water resources.
- E1.4 For any new dwelling on a lot subject to a rainwater tank covenant, the following is required irrespective of any inconsistency with the terms of the covenant.
  - a) A minimum 2,500 litre rainwater tank; and
  - b) 25mm orifice set at the 1000 litre level.

## F. Development and Onsite Stormwater Management in a Flood-Prone Area.

*Development requiring onsite stormwater management in a flood-prone area is safe from effects of stormwater flows and prolonged periods of submerged land where ground waters prevent infiltration and no overland flow path exists.*

*Development recognises that public stormwater infrastructure is not technically or financially viable in certain locations and owners must address safety and nuisance effects.*

- F1.1 Excavation for habitable buildings and slab on ground construction should be avoided in areas that are flood-prone due to the greater likelihood of flooding and private property damage.
- F1.2 Onsite stormwater management and disposal in flood-prone areas is a significant risk to owners and occupiers that cannot be mitigated through public infrastructure works that are not viable due to topography or cost.
- F1.3 Onsite stormwater management and disposal, where necessary, for a site that is partly or fully flood-prone must be designed to achieve a tolerable risk to owners and occupiers and must have regard to associated amenity impacts of inundation including extended periods of land being submerged by still surface water that cannot infiltrate or drain.
- F1.4 Onsite stormwater management systems within an area subject to a 1% AEP flood hazard may be approved having regard to the flood hazard criteria in Table 4.

A	Can onsite stormwater management be avoided through reasonable and feasible stormwater assets to be constructed by the developer and transferred to Council?
B	If A is not feasible, can additional rainwater tank or other onsite storage capacity be provided to restrict stormwater flows to a 5% AEP event for storm events up to a 1% AEP event?;
C	If A and B are not feasible, a flood hazard report demonstrates that the development, with alternatives designs manage storm events up to a 1% AEP event, achieves a H1 hazard category rating.
D	If A, B and C are not feasible or achieved, the development will not proceed.

## G. Creation of easements for existing stormwater infrastructure

G1.1 Notwithstanding any statutory easement 1m either side of a stormwater main under section 13(1)(b) of the *Urban Drainage Act 2013*, and subject to landowner consent, Council may create a stormwater easement around any pipe, pit, manhole or water sensitive design installation on private property where no easement currently exists and new development is proposed.

## H. Protection of easements

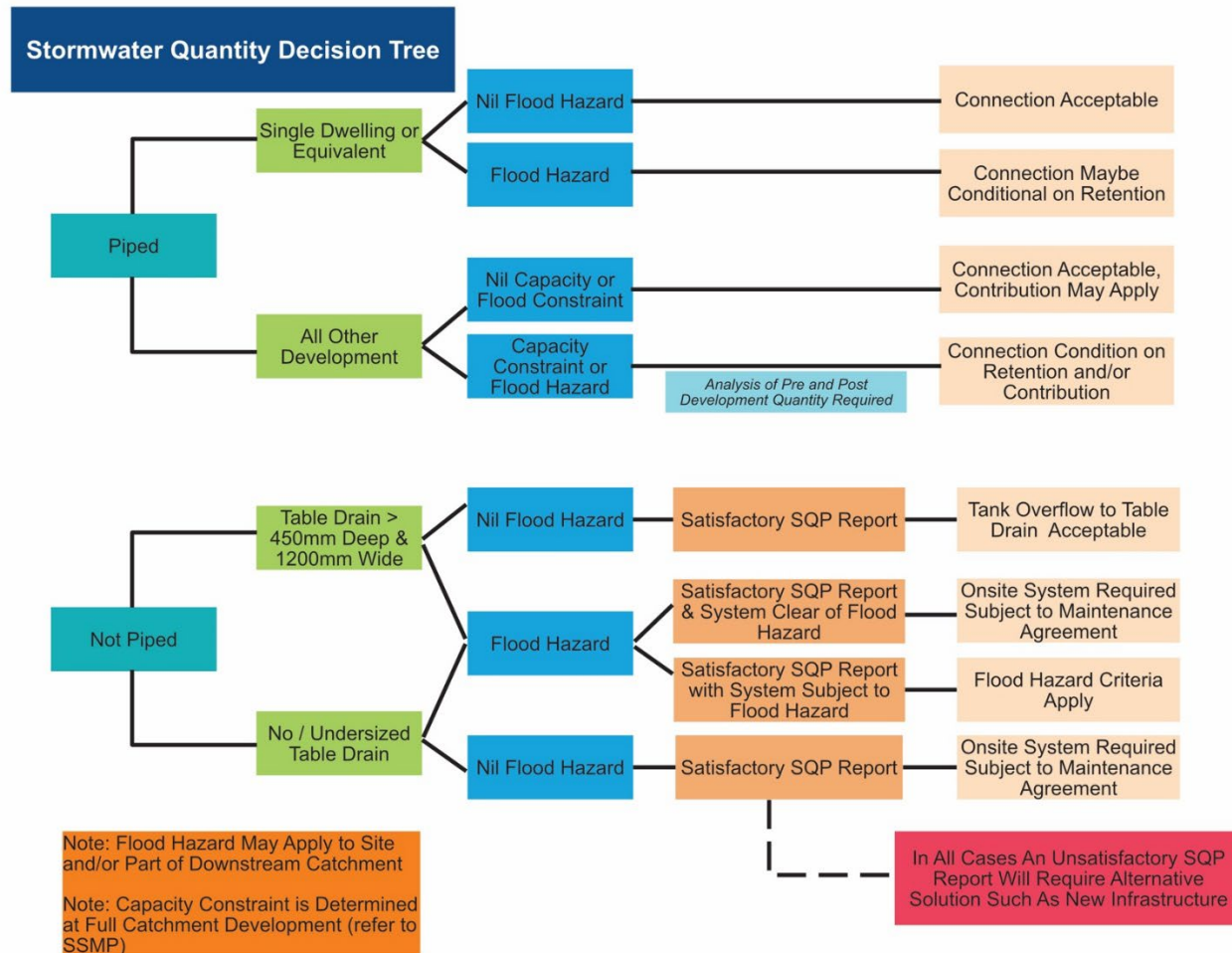
H1.1 Buildings and structures, including rainwater tanks and exempt or low risk buildings, must not be placed wholly or partly within a drainage easement on title or a statutory easement under section 13(1)(b) of the *Urban Drainage Act 2013*.

For sites constrained by easements, topography or other factors, the General Manager may consent to buildings and structures within an easement subject to a Part 5 Agreement whereby the owner acknowledges that Council has the right to remove any building or structure at the owners costs and without notice to or approval of the owner.

Driveways, sealed parking areas and landscaping is permitted in an easement provided that:

- (a) Vehicular access, such as for a vacuum truck, is maintained to any maintenance hole;
- (b) Any maintenance hole is unobstructed at all times;
- (c) If fill is placed on or near a maintenance hole, the owner obtains approval from the General Manager to increase the height of the chamber such that the maintenance hole lid is at all times equal to or above finished ground level.

Appendix 1.



Appendix 2 – Spatial Application of *Urban Drainage Act 2013*.

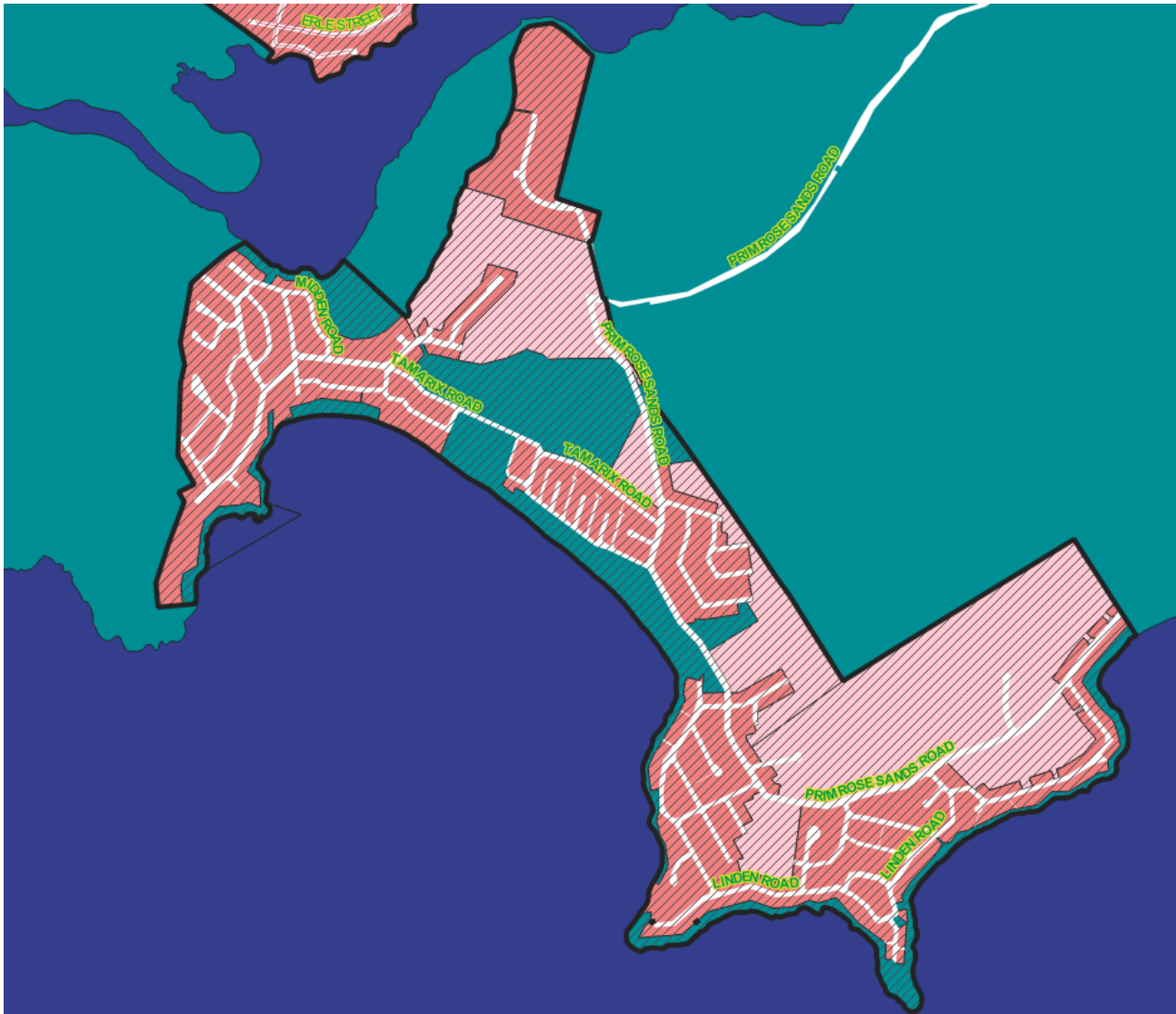


A2.1 Dunalley



A2.2 Connelly's Marsh

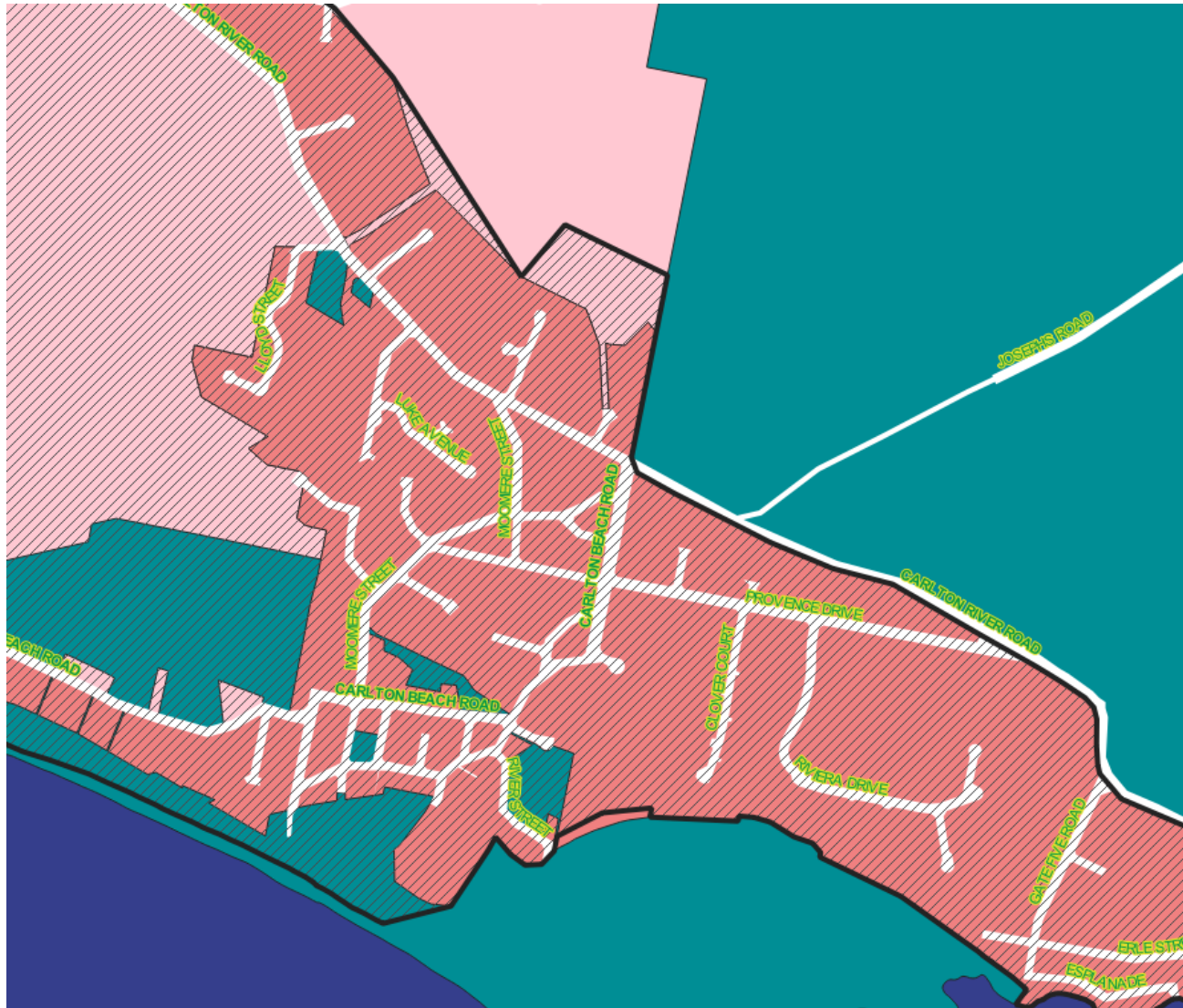




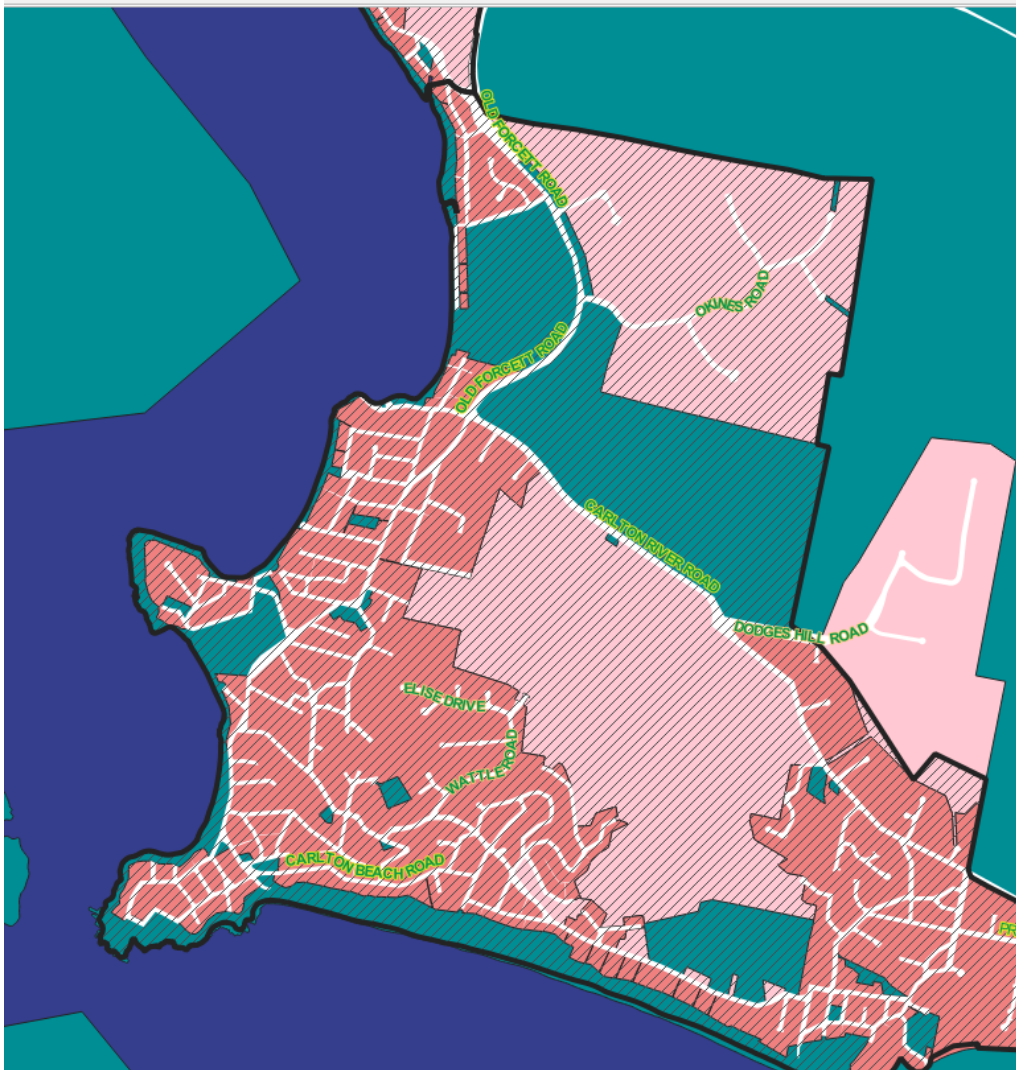
A2.3 Primrose Sands



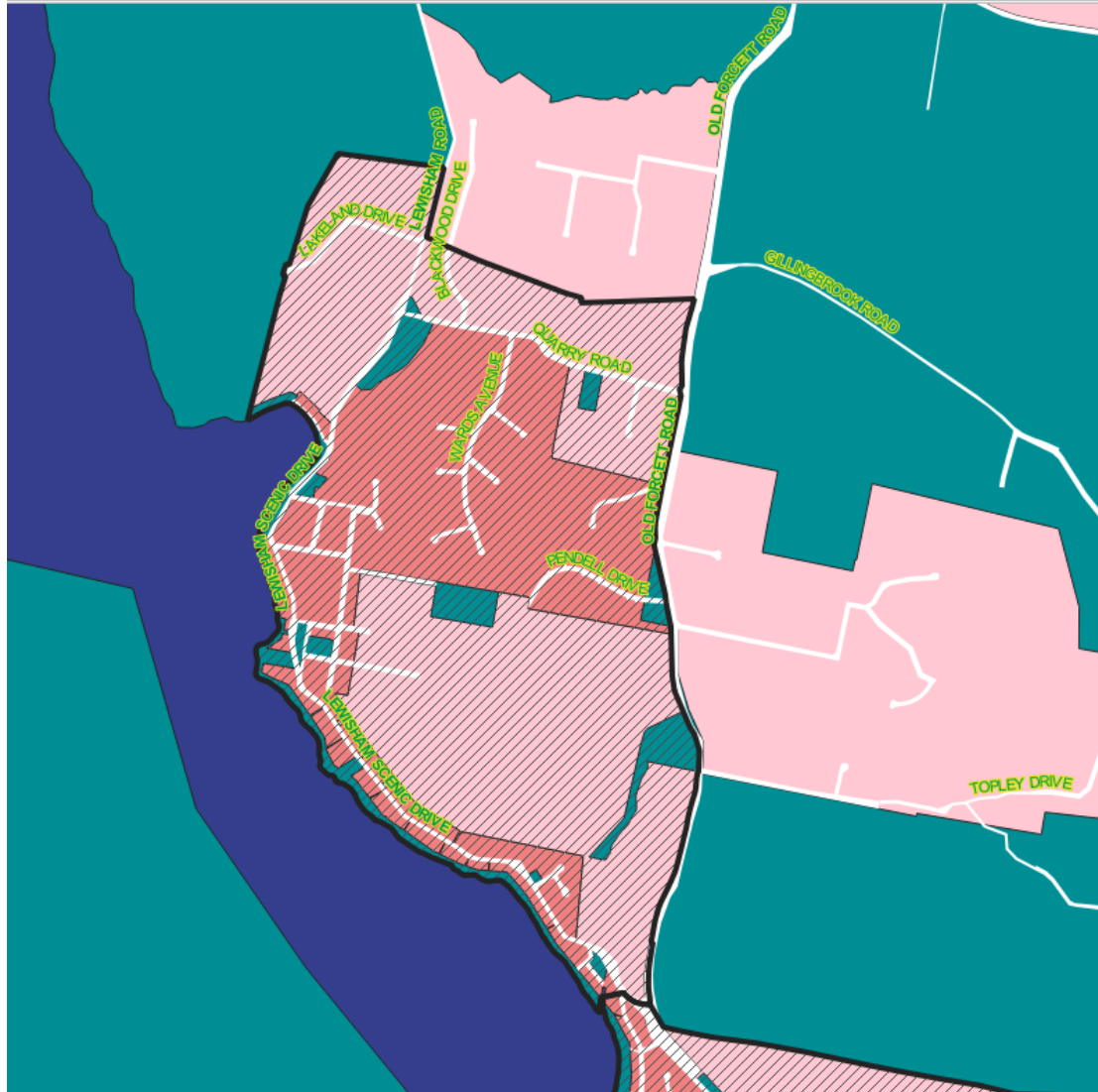
A2.4 Carlton Beach



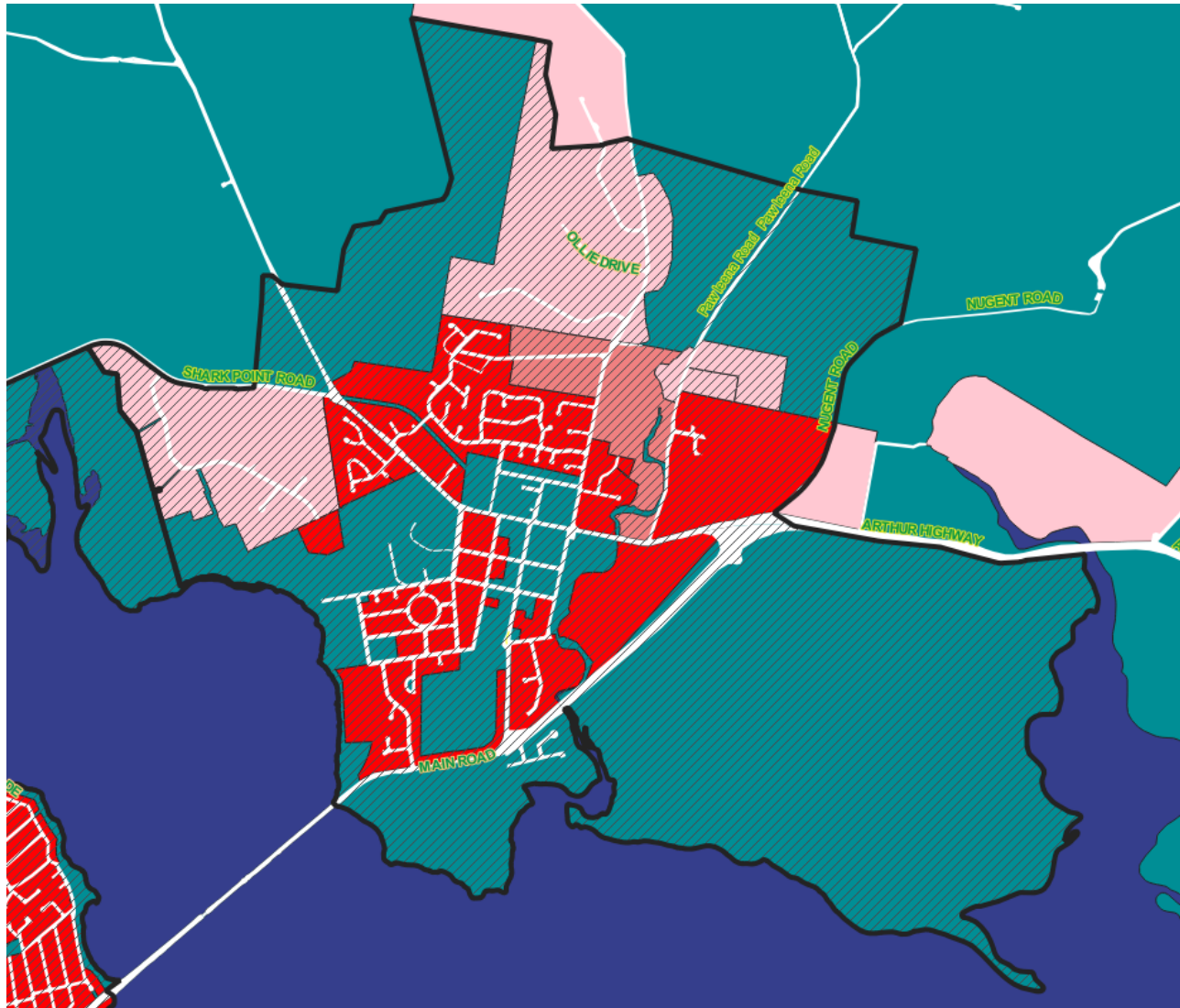
A2.5 Carlton



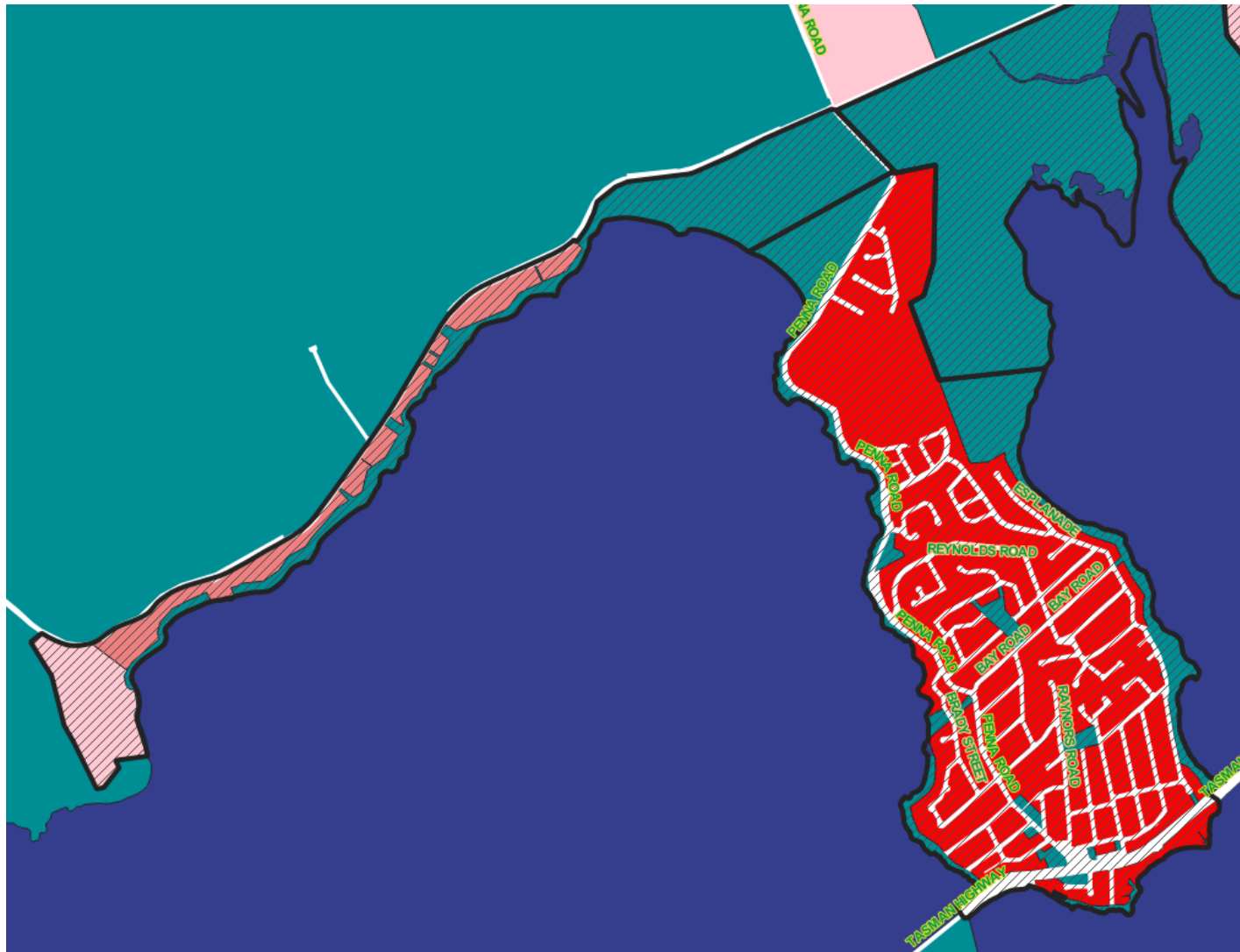
A2.6 Dodge's Ferry



A2.7 Lewisham



A2.8 Sorell



A2.9 Midway Point & Penna