Sorell Street

SITE OPTIONS PLAN REPORT

REALM studios

content

Design Report

Acknowledgement of Country

As we develop conceptual thinking on lutruwita Aboriginal land, sea and waterways, we acknowledge, with deep respect the traditional owners of this land, the palawa people. The palawa people belong to the oldest continuing culture in the world. They cared for and protected Country for thousands of years. They knew this land, they lived on the land and they died on these lands. We honour them.

We pay our respects to elders past and present, to the many Aboriginal people that did not make elder status and to the Tasmanian Aboriginal community that continue to care for Country. We recognise a history of truth which acknowledges the impacts of invasion and colonisation upon Aboriginal people resulting in the genocide and forcible removal from their lands.

Our Island is deeply unique, with spectacular landscapes with our cities and towns surrounded by bushland, wilderness, mountain ranges and beaches. We stand for a future that profoundly respects and acknowledges Aboriginal perspectives, culture, language and history. And a continued effort to fight for Aboriginal justice and rights paving the way for a strong future.

Project: Sorell Street

Report Title: Sorell Street - Draft Site Plan Options Report

Authors: Alaric Hellawell (REALMstudios)
Fiona Davidson (REALMstudios)

Review: Alaric Hellawell (REALMstudios)

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Prepared by: REALM studios

project overview

A considered plan for the sustainable growth of Bridgewater's residential areas

Brighton Council is considering the rezoning of a 30ha parcel of land in Bridgewater, bordering Boyers Road, and Weily Park Road, and including part of Cobbs Hill Road and Samuel Street.

The project responds to the potential population growth, demand and developments that will be brought about by the New Bridgewater Bridge Project.

This proposal also builds on existing work undertaken through the Bridgewater Waterfront Masterplan. The masterplan actions included the encouragement of increased density supported by the mixed use precinct of Old Main Road.

The project site is currently in the Rural Living Zone and is located to the west of the Old Main Road precinct. The potential rezoning of the land, for increased residential density signifies a pivotal opportunity for transformative urban development. This opportunity will aim to provide well-serviced land, close to public and active transport infrastructure, reinforcing the centre of Bridgewater as a liveable and connected community.

This report seeks to synthesise the data and investigations undertaken to determine baseline parameters around the open space and developable area for the site. A site plan is proposed which considers the challenges and provides the framework for a liveable and healthy community. Including:

- Cultural values
- Natural values
- Developable areas
- Open space provision

To do this, Council has commissioned the following assessments and site investigations:

- Natural Values Assessment - North Barker Ecosystem Services
- Traffic Assessment - Hubble Traffic
- Aboriginal Heritage Assessment - CHMA

The studies identify Aboriginal Heritage and natural values present on the site. There is also land subject to flooding and potential value in the improvement of Ashburton Creek. The Creek which runs through the site and into the timtumili minanya/Derwent River, has been heavily altered by years of agricultural practices and the construction of private property including fences and structures. This has resulted in a degraded waterway, weed infestations and also a disconnect between hydrological and ecological systems.

This project aims to provide a framework for future residential development that supports the rehabilitation of the Creek and surrounding vegetation, and provides access to nature for a growing residential community.

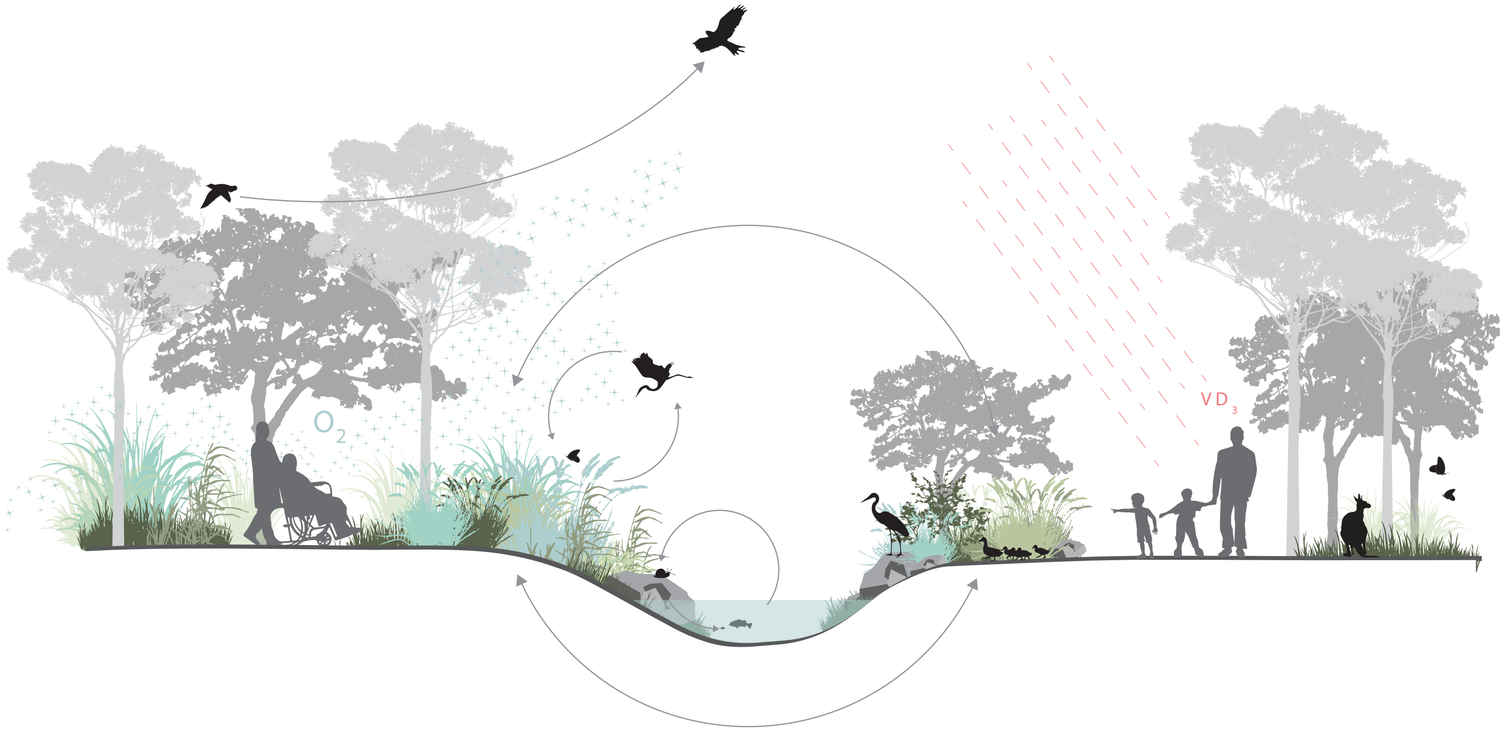
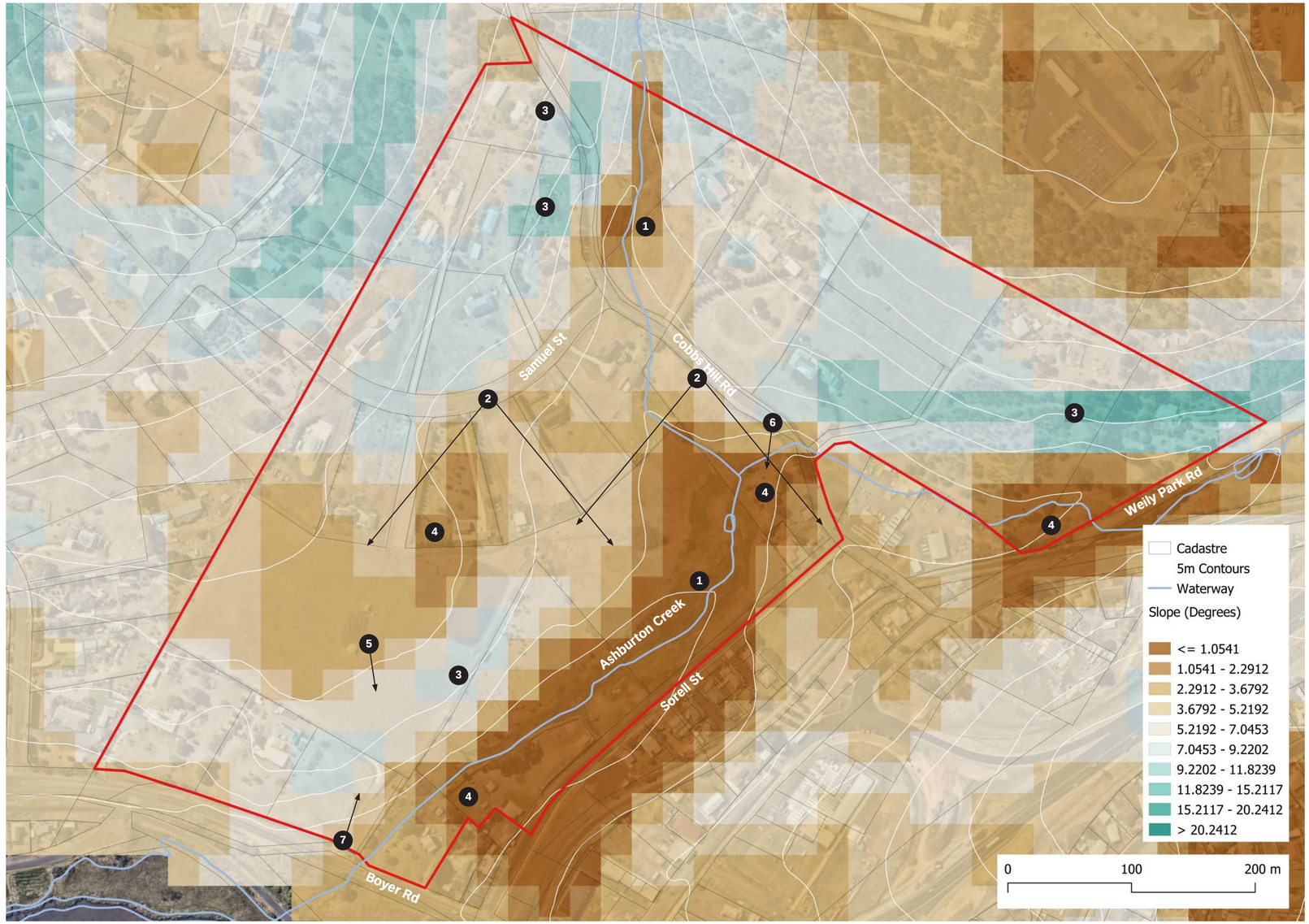


Image Description: Ashburton Creek reimagined as a corridor that supports a growing residential community through linked trails, access to nature, and passive recreation.

The understanding of the sites history, hydrology and ecology is a start point for regeneration and defining the points of open space and connection. The options presented in this report can be explained through separable layers as follows:

- Topography and Aspect
- Hydrology
- Ecology and Natural Values
- Utilities + Servicing
- Movement + Access
- Heritage

site analysis



Topography and Aspect

The site is sloping with the highest points (40m) in the north and north east, sloping down towards Ashburton Creek (0-5m) in the south. The aspect of the site is largely south / south east with sweeping views of Mount Faulkner and kunanyi / Mt Wellington visible from Cobbs Hill Road and Samuel Street. The slopes move down to an area of flat, low lying ground along Sorell Street which is a freshwater wetland fed by Ashburton Creek. These low lying areas play a key role, dealing with runoff from the surrounding catchment.

The natural lines of Ashburton Creek and an unnamed tributary (from Weily Park Road) bisect the site with the Creek entering the area from the north, flowing under Cobbs Hill Road and down towards the River Derwent.

There is opportunity to respect the sites topography and ensure that development does not encroach upon the creek lines and ridgelines.

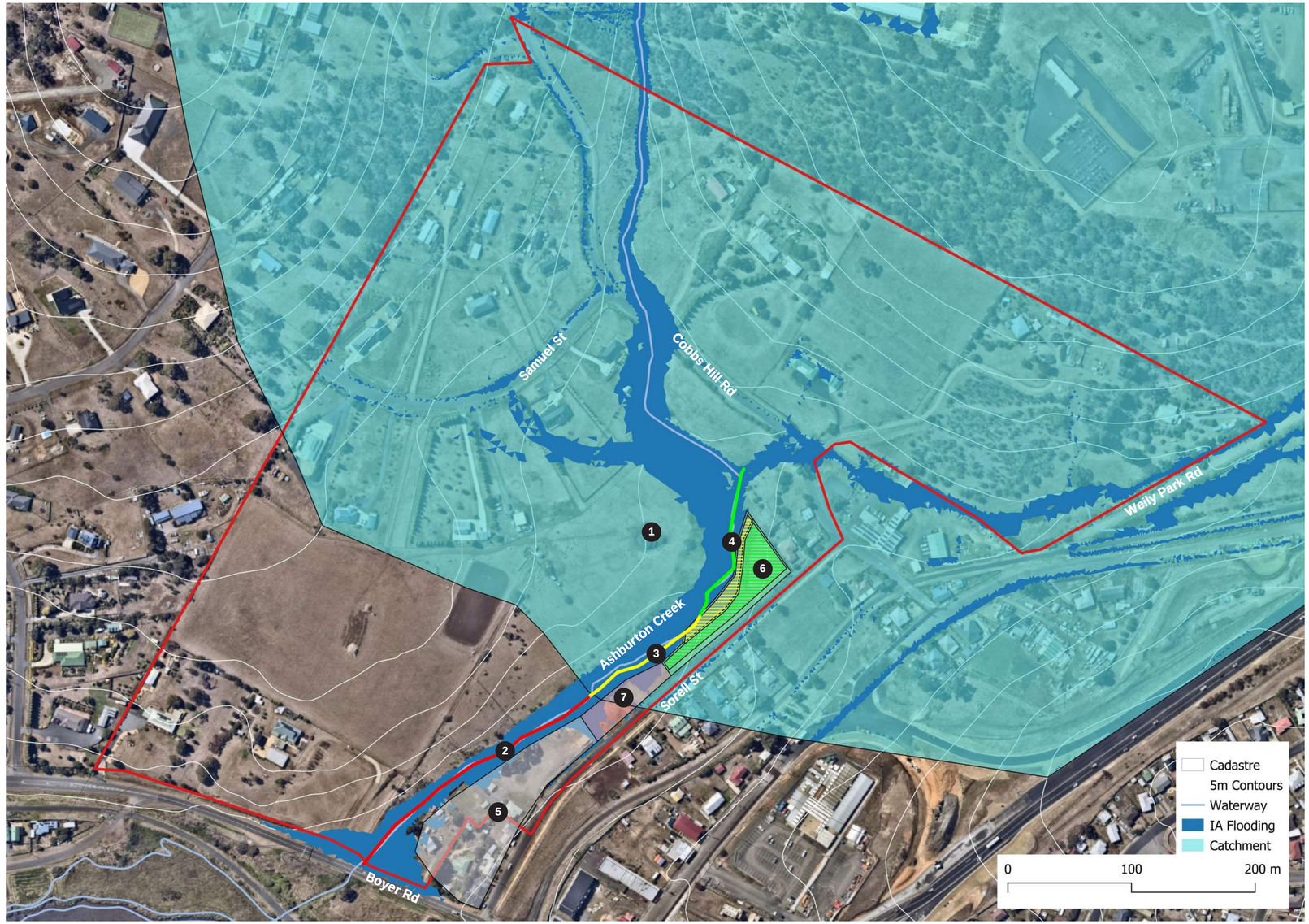
1. Wetlands of Ashburton Creek
2. Views of kunanyi and Mt Faulkner
3. Relatively steep sloped area
4. Relatively flatter area

5

6

7

site analysis



Hydrology

The Ashburton Creek and an unnamed tributary (from Weily Park Road) bisect the site from the north and east, flowing under Cobbs Hill Road and down towards the River Derwent.

The catchment area of the creek is large, encompassing 315ha. Areas of flatter terrain allow for freshwater wetlands fed by the Creek in the north and south. These wetland areas play a key role, dealing with runoff from the surrounding catchment.

Flood modelling indicates a significant portion of the site around Ashburton Creek is subject to inundation. There is potential to increase detention requirements from the industrial precinct in the north and/or convert part of the creek into a wider channel. However the benefit of these strategies may not be viable due to earthworks and civil requirements.

Due to degradation of the Creek from agriculture there is a key opportunity to improve the quality of the water corridors through the site and their flows into the Derwent.

Approximate project area subject to inundation - 30,491m2

1. Existing farm dam
2. Red Line - River reach average 0.2%
3. Yellow Line - River reach average 1.5% slope
4. Green Line - River reach average 2.7% slope
5. White Hatch - East of creek - existing developed area
6. Green Hatch - East of creek - developable area
7. Red Hatch - East of creek - avoid development due to overland flow

site analysis

Aboriginal Heritage

The Aboriginal Heritage assessment of the site was undertaken by CHMA Pty Ltd and Rocky Sainty. Results of the field assessment were the recording of one Aboriginal Heritage Site, two recommendations for the project, and one general recommendation. The recommendations of the assessment are mapped and outlined below.

Recommendation 1 - Location of the artefact 60m west of the Creek.

- Prior to any ground disturbing works commencing in this area, temporary high visibility protective barricading is to be erected around the identified boundaries of the site with a 5m buffer applied. There must be no soil disturbance within the barricaded zone. Barricading is to be removed on completion of the construction works in this area.
- Construction contractors should be informed of the location of the site and informed that the site is not to be impacted.
- If the site may be impacted, then seek Permit.

Recommendation 2 - Ashburton Creek

- The creek has been identified as a having an increased potential for undetected Aboriginal sites to occur along the margins of this creek. A preferred management option is to conserve the riparian margin (50m buffer) in open space. Any soil disturbances should be kept to a minimum.

General Recommendation - If previously undetected Aboriginal sites or suspected features are located within these three areas during the works program, the processes outlined in the Unanticipated Discovery Plan should be followed (see Appendix 3). Copies of this report should be submitted to AHT and the AHC for review and comment.

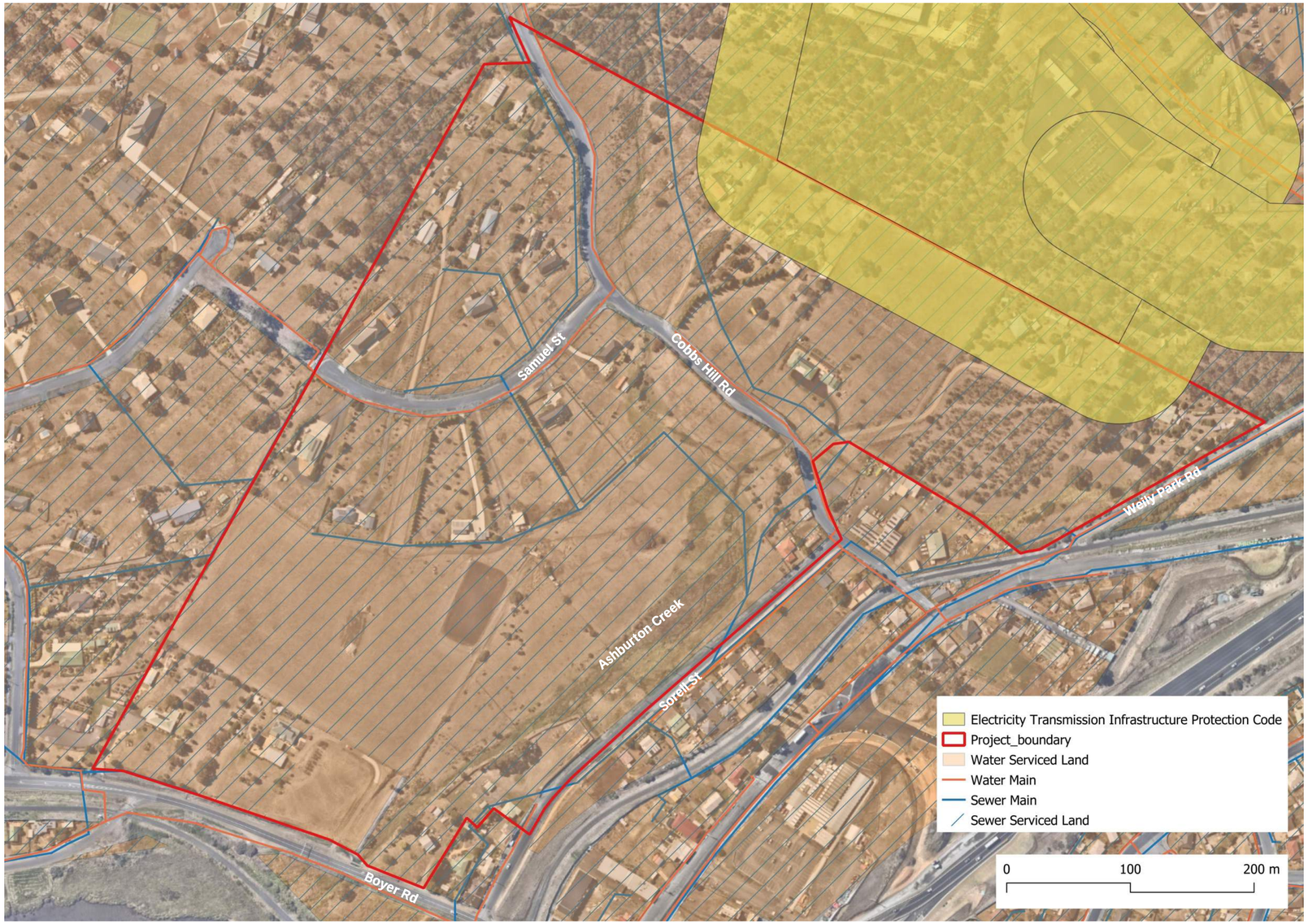
1 50m buffer either side of Ashburton Creek

European Heritage

There is one site within the study covered by the Local Historical Heritage Code, Cottage - 25 Sorell Street

2 Local Heritage Site

site analysis

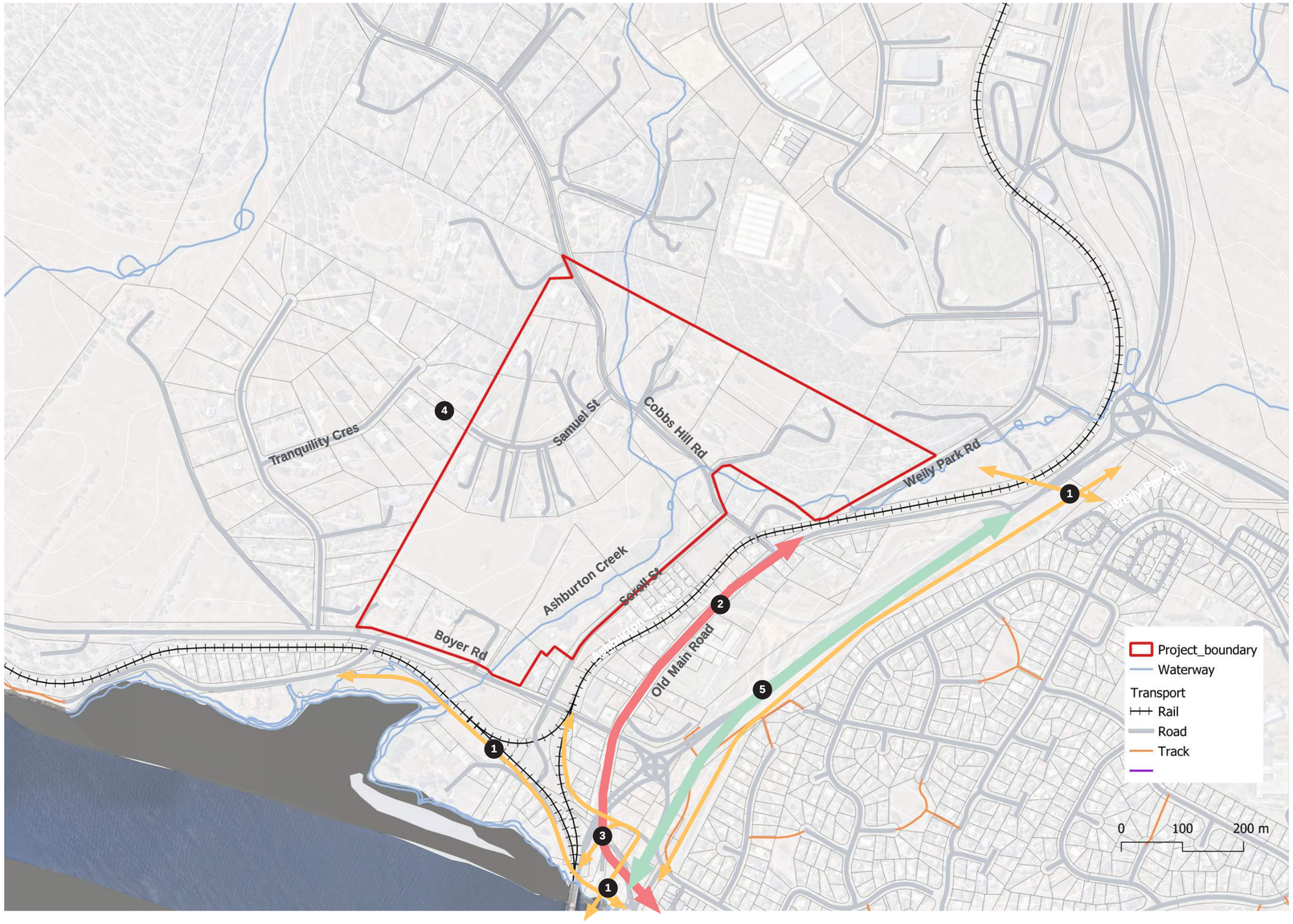


Utilities and Servicing

The site is fully serviced by water and sewer mains. No major constraints have been identified that would significantly inhibit any development of the land.

A portion of the site to the north east is partially covered by the Electricity Transmission Infrastructure Protection Code due to a Substation facility buffer area from the adjacent Tas Networks land.

site analysis



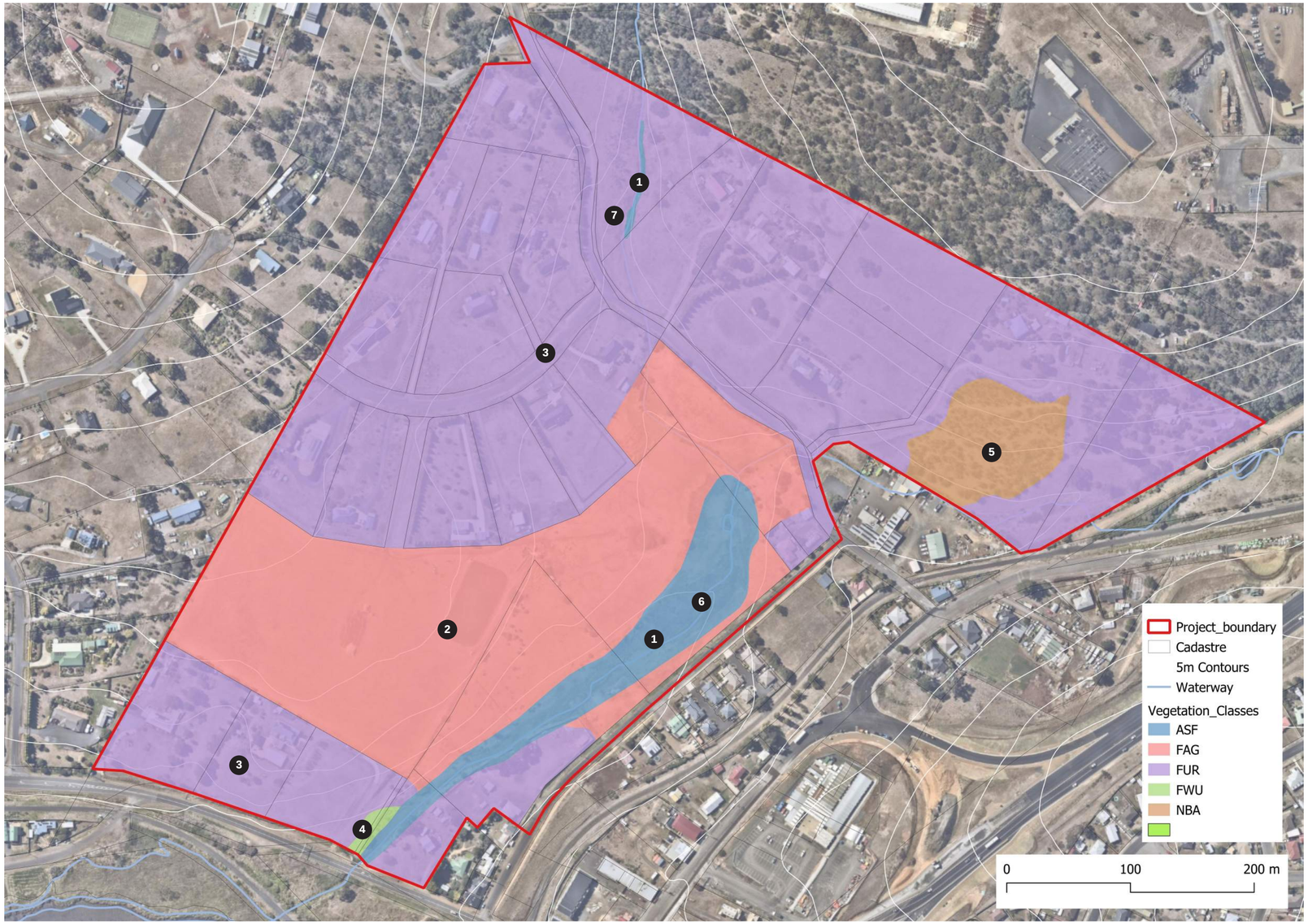
Movement and Access

The site well connected, it is in close proximity to Old Main Road and the Midland Highway which provides access to Hobart and beyond. The area is accessed from Old Main Road via Boyer Road in the south and Sorell Street and Cobbs Hill Rd in the south east and north. Some challenges and opportunities relating to site access include:

- TIA assessment by Hubble identified that the additional vehicle trips resulting from rezoning the land to general residential can be accommodated within the surrounding road networks.
- There are opportunities to connect the site into the future active and public transport network proposed in the New Bridgewater Bridge and Bridgewater Waterfront Masterplan.
- The slope of the site along Boyer Rd is very steep and poses a challenge for vehicle access.
- There is opportunity to create pedestrian linkages and open space along Ashburton Creek for active transport use.

1. Potential future shared path (Bridgewater Waterfront Masterplan)
2. Improved Old Main Rd (Bridgewater Waterfront Masterplan)
3. Potential future bus stop (Bridgewater Waterfront Masterplan)
4. Opportunity to connect Samuel St to Tranquility Crescent
5. New Bridgewater Bridge and connection of Midland Hwy

site analysis



Ecology and natural values

The site is identified to contain natural values, detailed in the natural values report by North Barker. Vegetation communities identified on the site include ASF freshwater aquatic sedgeland and rushland which is a state-listed threatened community.

Opportunities and challenges for rezoning the site include:

- To protect the natural values on the site there is opportunity to rezone the Ashburton Creek corridor and areas of threatened vegetation to Landscape Conservation Zone or Environmental Management Zone. Rezoning should incorporate areas of ASF and consider the extent of the waterway and coastal protection areas.
- Need to minimise erosion and sedimentation impacts and stormwater runoff impacts from any future development adjacent to the Creek.
- Opportunity for restoration of riparian and saltmarsh habitats to improve ecological conditions and provide linkages between the Derwent River to the south and the wetlands of the creek and riparian scrub to the north.

1. ASF Freshwater aquatic sedgeland and rushland
2. FAG Agricultural land
3. FUR Urban areas
4. FWU Weed infestation
5. NBA Bursaria-Acacia woodland and scrub

6 Existing wetlands - southern reach

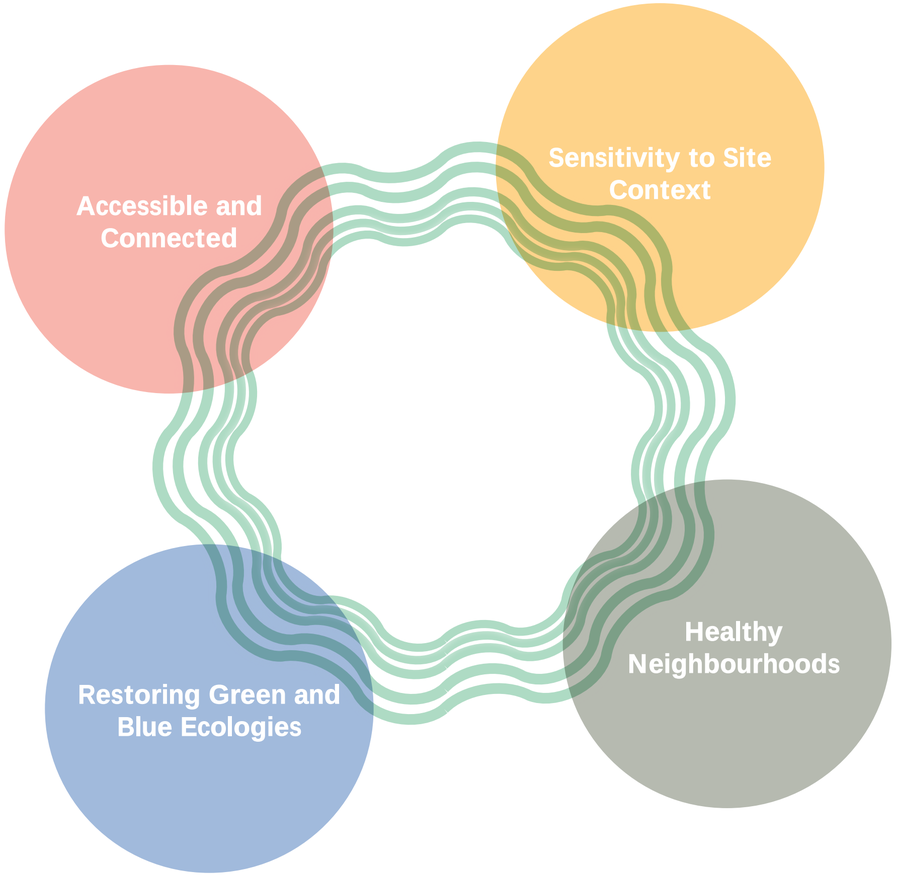
7 Existing wetlands - northern reach

design principles

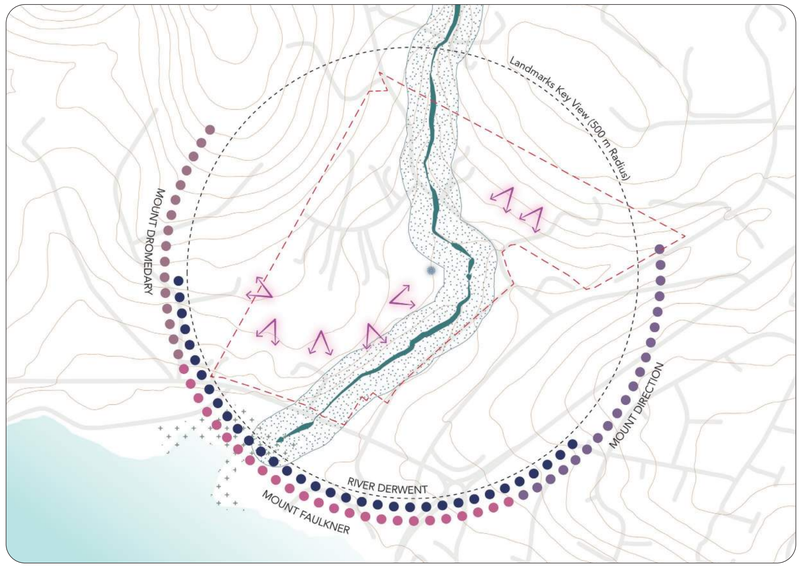
A framework for the sustainable development of the Sorell Street Precinct

A series of principles has been developed to guide the masterplan development for the site, which consider the sites key features and constraints. The principles are intended to drive the best possible outcomes from the potential rezoning and development of the site and to maximise benefits such as accessibility, solar access and ecological connections.

By integrating the interconnected concepts the Bridgewater community can be resilient, livable, and sustainable for future generations.



Sensitivity to Site Context



- Maintain views and visual linkages towards surrounding natural landmarks.
- Limit development intensity towards the tops of ridgelines to maintain natural/rural character.
- Orient blocks to preserve site topography, allow for overland flows, and drainage to maintain wetland ecosystems.
- Preserve Aboriginal heritage on the site, and ensure creek connection is preserved and enhanced as a connection to Country.
- Preserve and enhance the creeks vegetation and ecology.

design principles

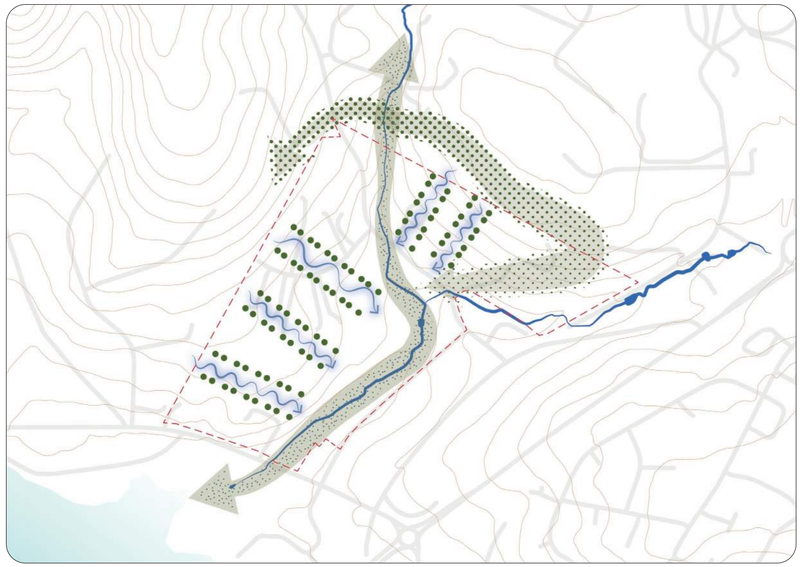
Accessible and Connected

- Ensure vehicle access from existing road network provides a safe and connected street network which avoids no-through roads and cul-de-sacs.
- Prioritise active transport access along the Creek green zone, and provide access towards the Creek from Sorell St.
- Connect the new green corridor along Ashburton Creek to the Derwent River foreshore open space and trails proposed in the Bridgewater Bridge Masterplan.
- Ensure local streets within the site are traffic calmed and provided with footpaths and street greening.
- Connect Samuel Street to Tranquility Crescent along existing road easement.

Healthy Neighbourhoods

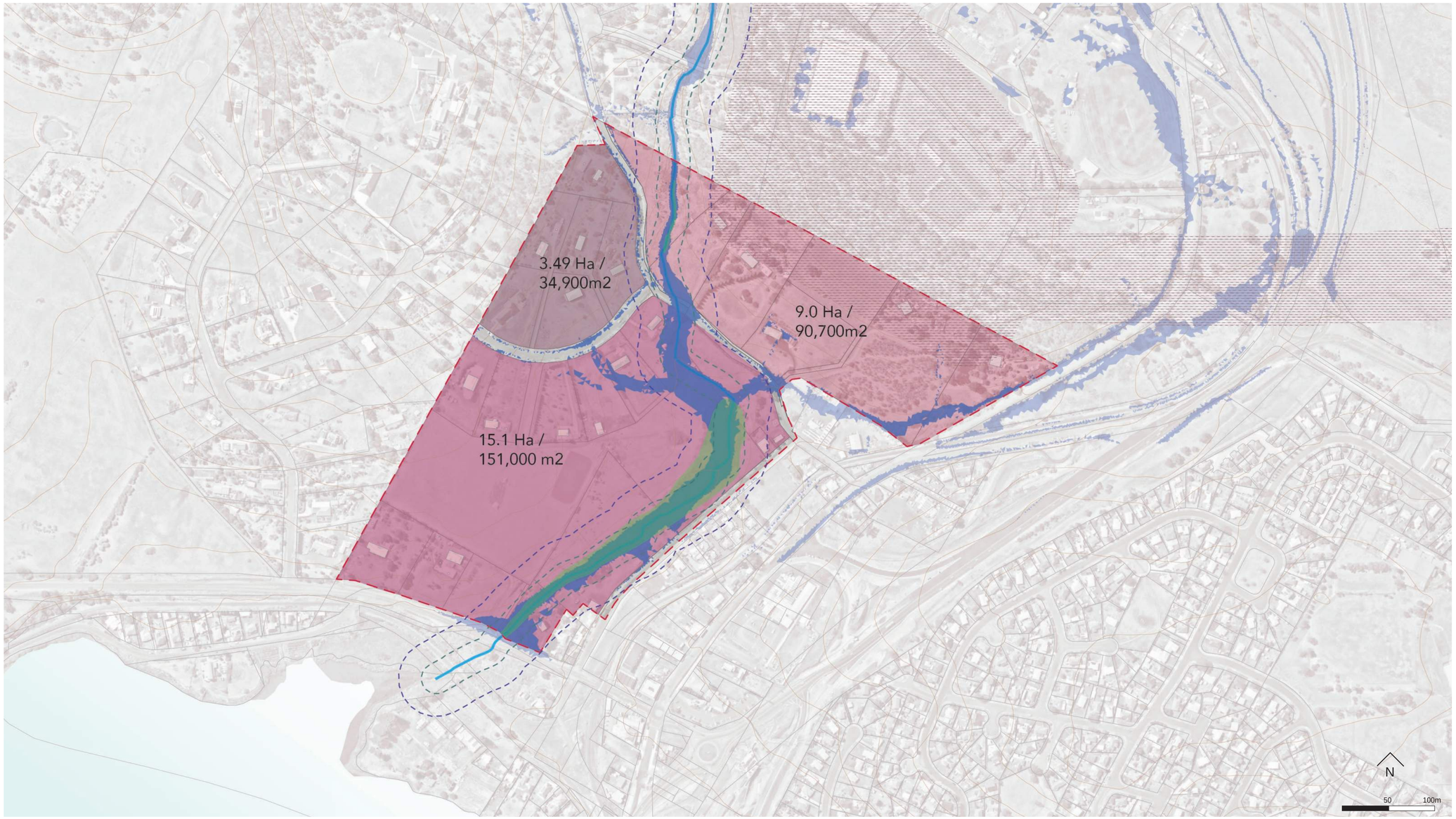
- Enhance local identity by defining key moments along the Ashburton Creek Corridor.
- Ensure new development has accessibility to public open space and shared paths.
- Provide moments of pause and play along the stream that contribute to health, recreational, educational, and cultural benefits.
- Encourage social opportunities by integrating an active recreation zone, and shared paths that connect to the Derwent River open space.

Restoring Green and Blue Ecologies



- Enhance biodiversity by protecting and replenishing the green corridor that links to the Derwent River.
- Preserve and rehabilitate the Ashburton Creek stream and banks with re-vegetation to restore natural hydro-processes and ecological processes of the wetlands and sedgelands.
- Ensure weed reduction and mitigation in the open spaces.
- Provide street tree canopies and green verges to reduce heat and provide shade alongside new roadways and footpaths.
- Enhance bioretention zones and infiltration areas along the main access roads to preserve the health of the Creek.
- Integrate new bioretention areas along streets and public spaces, improving the transition between public and private spaces ad well as reducing the dominance of grey infrastructure.

composite plan



This plan identifies the key overlays that will affect the developable areas of the site including the areas subject to flooding and protected vegetation communities.

Legend

- Ashburton Creek
- 20m Offset from Creek Line
- 50m Offset from Creek Line
- Project Site
- Areas subject to flooding
- Areas of ASF Aquatic sedgeland and rushland vegetation
- Area subject to Electricity Transmission Protection Code

Approximate Developable Area : 27 Ha

Option 1

The proposed site plan seeks to create a community that is supported by a connected, green area of public open space along the Ashburton Creek that retains and supports ecology, cultural heritage and the movement of people through the site.

This option takes the 5% POS contribution and uses it to widen the creek corridor in the south of the site to create a connected and expanded public open space. Road frontage onto the open space will allow for passive surveilance and increased access for visitors.

Legend

- Project Site
- Access Roads
- General Residential Zone
- Green Public space
- Creek
- Areas subject to flooding
- Shared Path
- Existing Buildings
- Cadastre
- Topography

Development Study

Legend

Zone 1

Total Area (m^2)	90,718
Area subject to inundation (m^2)	5,476
Net Developable Area (m^2)*	85,242
Access Roads (m^2) (25%)	21,310
Proposed Open Space (m^2)	3,500
Total General Residential lots**	121

Zone 2

Total Area (m^2)	34,944
Net Developable Area (m^2)*	34,944
Access Roads (m^2) (25%)	8,736
Total General Residential lots**	52

Zone 3

Total Area (m^2)	151,104
Area subject to inundation (m^2)	22,425
Net Developable Area (m^2)*	128,679
Access Roads (m^2) (25%)	32,169
Proposed Open Space (m^2)	9,050
Total General Residential lots**	175

Total Area (m^2)	276,766
Total Inundation Area (m^2)	27,901
Tota Access Roads (25%)	62,216
Total Open Space (5%	12,550
Total Residential lots	348

*Net developable area calculated from total area minus areas subject to inundation

** Based on lot size 500m2

Option 2

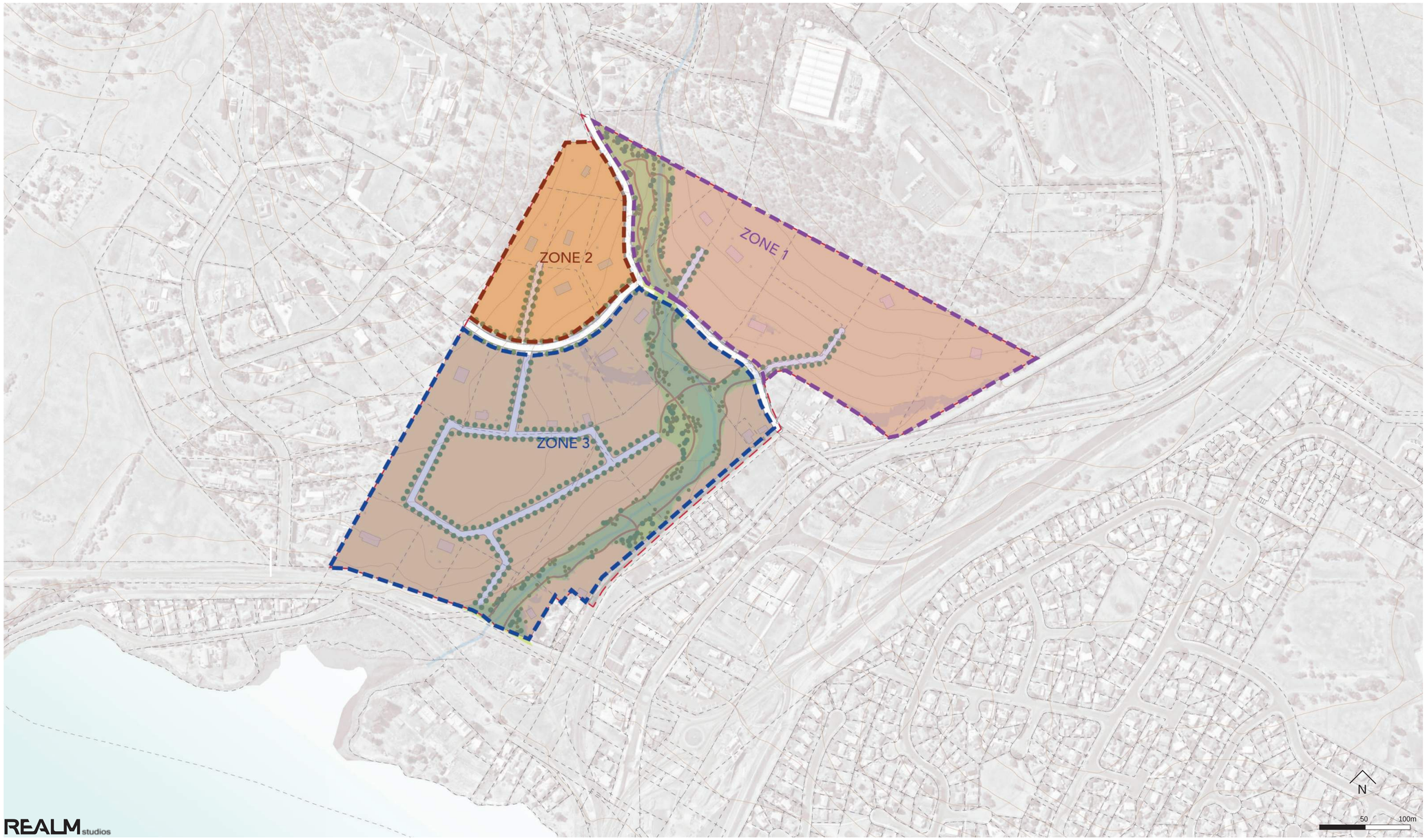
The proposed site plan seeks to create a community that is supported by a connected, green area of public open space along the Ashburton Creek that retains and supports ecology, cultural heritage and the movement of people through the site.

This option takes the 5% POS contribution and uses it to widen the creek corridor in the north of the site to create a connected and expanded public open space with sweeping views. Road frontage onto the open space will allow for passive surveillance and increased access for visitors. A trail connection will enable pedestrians to travel from north to south

Legend

- Project Site
- Access Roads
- General Residential Zone
- Green Public space
- Creek
- Areas subject to flooding
- Shared Path
- Existing Buildings
- Cadastre
- Topography

Development Study



Legend

Zone 1

Total Area (m^2)	90,718
Area subject to inundation (m^2)	5,476
Net Developable Area (m^2)*	85,242
Access Roads (m^2) (25%)	21,310
Proposed Open Space (m^2)	7,370
Total General Residential lots**	113

Zone 2

Total Area (m^2)	34,944
Net Developable Area (m^2)*	34,944
Access Roads (m^2) (25%)	8,736
Total General Residential lots**	52

Zone 3

Total Area (m^2)	151,104
Area subject to inundation (m^2)	22,425
Net Developable Area (m^2)*	128,679
Access Roads (m^2) (25%)	32,169
Proposed Open Space (m^2)	5,400
Total General Residential lots**	182

Total Area (m^2)	276,766
Total Inundation Area (m^2)	27,901
Tota Access Roads (25%)	62,216
Total Open Space (5%)	12,770
Total Residential lots	347

*Net developable area calculated from total area minus areas subject to inundation

** Based on lot size 500m2

Option 3

The proposed site plan seeks to create a community that is supported by a connected, green area of public open space along the Ashburton Creek that retains and supports ecology, cultural heritage and the movement of people through the site.

This option takes the 5% POS contribution and uses it to widen the creek corridor in a central area in the south of the site to create a public open space on the creek frontage. Road frontage is provided onto part of the creek corridor allow for passive surveilance and increased access for visitors.

Legend

- Project Site
- Access Roads
- General Residential Zone
- Green Public space
- Creek
- Areas subject to flooding
- Shared Path
- Existing Buildings
- Cadastre
- Topography

Development Study

Legend

Zone 1

Total Area (m^2)	90,718
Area subject to inundation (m^2)	5,476
Net Developable Area (m^2)*	85,242
Access Roads (m^2) (25%)	21,310
Proposed Open Space (m^2)	1,500
Total General Residential lots**	124

Zone 2

Total Area (m^2)	34,944
Net Developable Area (m^2)*	34,944
Access Roads (m^2) (25%)	8,736
Total General Residential lots**	52

Zone 3

Total Area (m^2)	151,104
Area subject to inundation (m^2)	22,425
Net Developable Area (m^2)*	128,679
Access Roads (m^2) (25%)	32,169
Proposed Open Space (m^2)	11,000
Total General Residential lots**	171

Total Area (m^2)	276,766
Total Inundation Area (m^2)	27,901
Tota Access Roads (25%)	62,216
Total Open Space (5%	12,500
Total Residential lots	348

*Net developable area calculated from total area minus areas subject to inundation

** Based on lot size 500m2

REALM studios

city making + liveability

REALMstudios Pty Ltd
ABN 39165483330

enquiries@realmstudios.com

www.**REALM**studios.com

REALM studios

Postal
PO Box 2385
Richmond
Melbourne, VIC 3121

Sydney
Level 4, 68 Wentworth Ave
Surry Hills 2010
tom.rivard@
realmstudios.com
M +61 414 369 262

Melbourne
Gnd Floor, 79-81 Coppin St
Richmond
Melbourne, VIC 3121
jon.shinkfield@
realmstudios.com
T +61 3 9070 1157
M +61 411 551 512

Perth
Level 2, Commonwealth
Bank Building
242 Murray Street
Perth WA 6000
damien.pericles
@realmstudios.com
T +61 8 9227 7222
M +61 456 714 655

Hobart
89 Macquarie Street
Hobart
Tasmania 7000
alaric.hellawell@
realmstudios.com
M +61 (0)431 454 492