
4.2 Creek Street

4.2.1 Existing Character

4.2.1.1 Existing building character

4.2.2 Strategy and desired future character

4.2.2.1 Strategy principles

4.2.2.2 Diagrammatic representation

4.2.2.3 Public domain strategies and implementation

4.2.3 Controls

4.2.3.1 Guide to using the controls

4.2.3.2 Objectives

4.2.3.3 Controls - General

4.2.3.4 Additional Controls - Lot 156



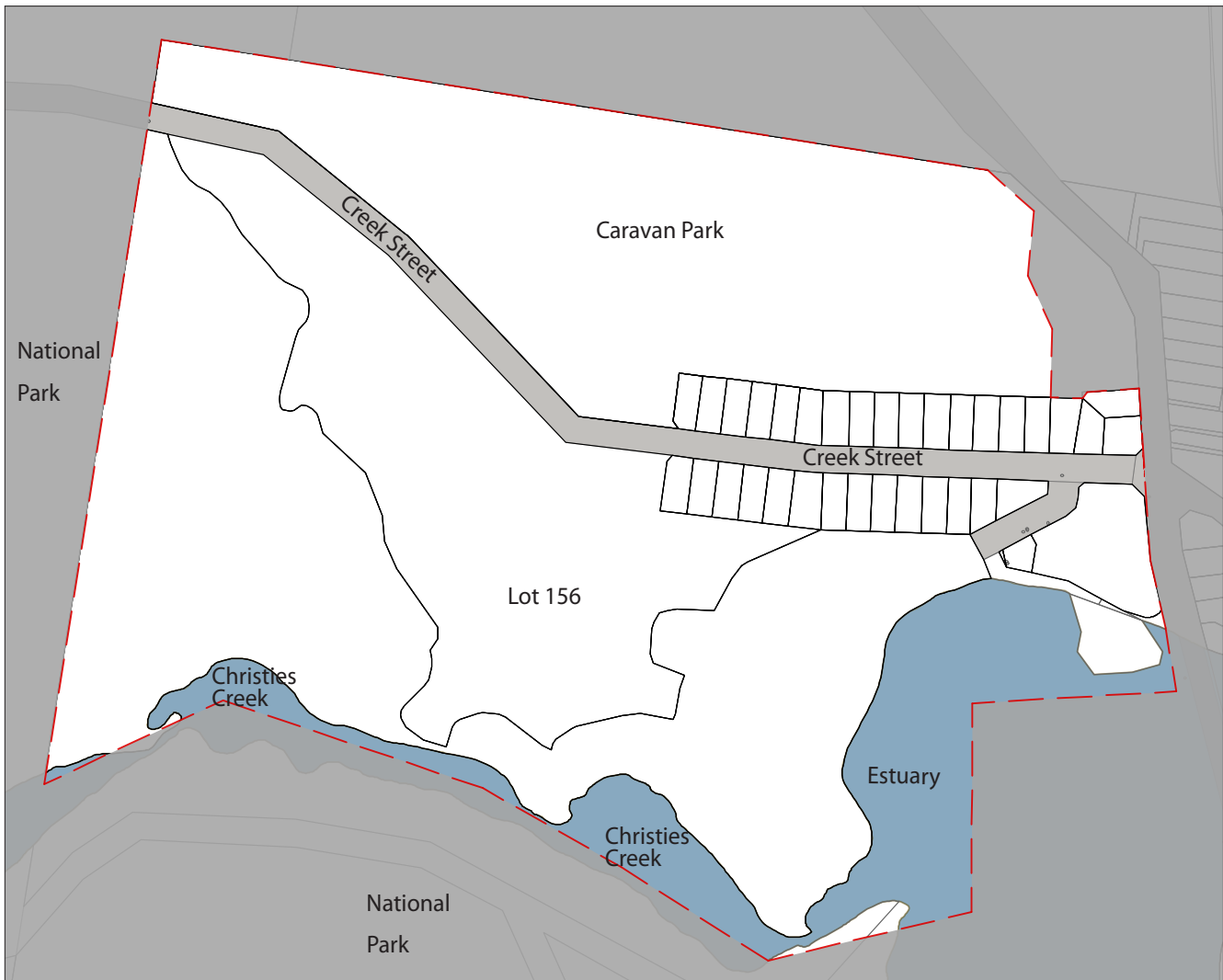


Figure 4.8 Extent of the Creek Street Precinct



Creek Street is characterised by its low scale coastal residential dwellings and informal street edge including grassed verge and low or no front fences.

4.2.1 Existing Character

As displayed in Figure 4.8, the Creek Street Precinct comprises:

- existing low density residential development accessed from Creek Street,
- an existing medium density development at the eastern end of Creek Street adjoining Tweed Coast Road,
- an undeveloped parcel of significant size (known as Lot 156) at the western end of Creek Street,
- a substantial holiday park including permanent and holiday accommodation and other ancillary holiday park facilities, and
- Christies Creek foreshore.

The existing character of the Creek Street precinct is heavily influenced by its environmental attributes. The perimeter of the precinct is lined with mature vegetation (both native and exotic) and areas of high wetland and ecological conservation value. The retention of vegetation, particularly along Creek Street and the view fields experienced from the bridge looking west, reinforce the strong natural environmental character.

Creek Street is a quiet coastal residential street that provides access solely to lots along its frontage. Whilst possessing an extensive road reserve, continuing to Round Mountain to the west, Creek Street as constructed terminates at the entrance to Lot 156 and is not planned to be formalised as a through road. Large setbacks and unmade edges characterise the street. The setting is complemented by mature vegetation within many front gardens and along the road reserve. Low and open coastal style fencing and absence of fences gives an informal character to the street.

These existing street qualities provide a pleasant and safe pedestrian experience. A number of the lots along the southern side of the street have a rear interface with the Cudgera Creek/Christies Creek riparian corridor.

Almost all land within the Creek Street precinct is identified as flood prone.

The key characteristics of Creek Street are:

- A strong natural environmental character comprising strong landscaping along Creek Street, visual and physical connections to Christies Creek and the dominance of riparian and terrestrial vegetation as opposed to built form when viewed from public vantage points to the south.
- Informal quality of the street adding to a pleasant streetscape environment.
- Deep grassed verges with no kerb and gutter.
- A mix of vegetation types and sizes including native and exotic.
- Views of the hills to the west looking west down Creek Street.
- Vegetated backdrop to the locality viewed west from the bridge.



Cudgera and Christies Creek, riparian vegetation and views to vegetated hills beyond are key character natural landscape elements of the Creek Street Precinct.



Existing housing along Creek Street

Existing Building Character

Building types within this precinct include: caravans, holiday villas, one storey coastal cottages, one and two storey houses. The caravan park has a wide range of holiday accommodation types.

Creek Street has mainly one and some two storey single residential dwellings of varied architectural character which generally have low pitched roofs, domestic scale windows and doors facing the street, low fencing and landscaped setbacks.

In response to the frequent flood and stormwater inundation within Creek Street, many dwellings have adopted a suspended structural system elevating the habitable floor levels above the natural ground level. The elevated structural system allows for the free flow of flood waters across the site rather than otherwise displacing flood water as a result of site fill and retaining walls.

Key built form characteristics of the precinct include:

- Modest coastal houses predominantly suspended structural systems constructed of timber frames.
- Soft engineering solutions (permeable surfaces) to car maneuvering areas.
- Lots, generally, with 18m frontages, depth of 40m and site area above 700m².
- Generally consistent front setback of 6m.
- Open and low fencing or no fences.
- Little or no site fill or retaining walls.
- Pitched roofs and lightweight materials, mainly weatherboards and fibro houses.
- Caravans, cabins, villas and other holiday accommodation within the caravan park site.
- Houses face the street with a residential address.

4.2.2 Strategy and Desired Future Character

Strategy 01 - Retain the existing character of the Creek Street Precinct.

Section 4.2.1 details the key environmental and built form attributes that underpin the Creek Street precinct character. It is critical that these character elements are retained and strengthened within future land use and built form decisions; as such Council will facilitate a planning framework that embody these qualities.

To complement the existing built form, development is restricted to a maximum height of 8 metres throughout the precinct. The building height restriction is supported by a land zoning along Creek Street that limits development to low density housing types, whilst the Caravan Park site will retain its private recreation provisions. The existing pattern of subdivision established through consistently sized lots along Creek Street is to be retained through minimum lot size provisions of 700m², with the exception of the existing multi-dwelling housing development site on the most south-eastern lot of Creek Street.

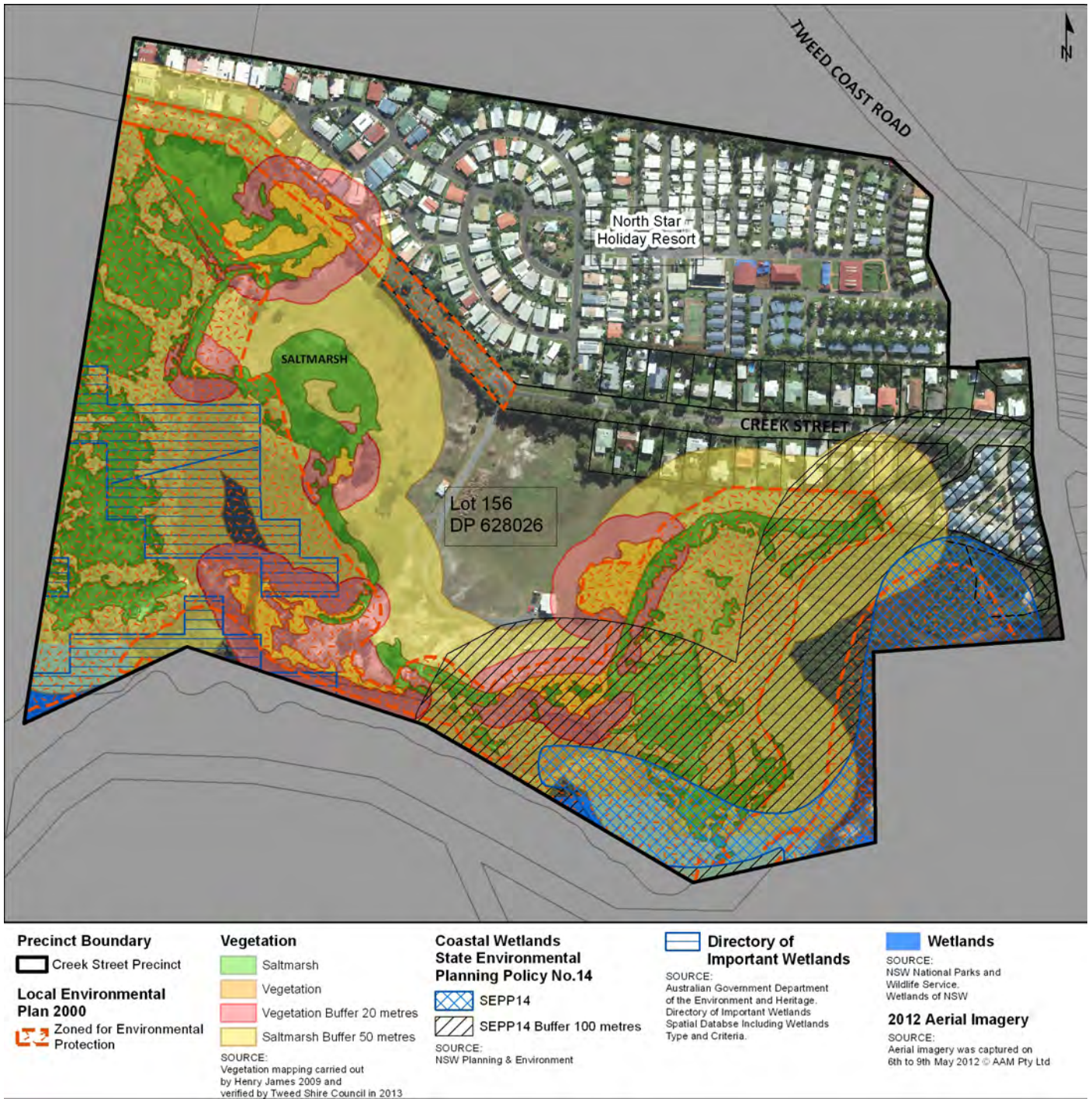


Figure 4.9 - Lot 156 Constraints Diagram

In addition to the above, site specific controls are provided for, but not limited to, the following items:

- Restriction of site excavation works
- Retention of vegetation
- Flood resilient housing design
- Creek Street design and upgrades

Strategy 02 - Protect and manage land of environmental significance.

Figure 4.9 identifies, the key environmental attributes located within the Creek Street precinct. Whilst many of these areas of environmental quality are already protected through environmental protection zoning or identification within State Environmental Planning Policy No. 14 - Coastal Wetlands, there is a need to expand the environmental protection footprint to capture additional areas of ecological significance and include appropriate environmental buffer areas. This expansion will protect additional environmentally sensitive estuarine land, which has been identified through more contemporary environmental analysis.

The enhancement and expansion of the footprint of environmentally protected land is to ensure the Christies Creek foreshore remains free from development, other than works/activities proposed to improve the quality and ecological health of that land (i.e. environmental protection and rehabilitation works).

The establishment of appropriate buffering of environmentally significant land defines the developable footprint of Lot 156. As detailed within Figure 4.10, the development footprint of Lot 156 is to be defined by achieving:

- A 50m buffer to the intertidal and salt marsh extents of Christies Creek;
- A 50m buffer to areas of high wetland conservation value (as mapped by Australian Government Department on the Environment and Heritage)
- A 50m buffer to the intertidal and salt marsh extents identified to the western edge of the site
- A 20m buffer to existing terrestrial native vegetation located within the eastern, south western and western parts of the site.
- A 100m buffer to SEPP 14 Wetland areas.

The areas of environmental significance and their buffer areas are to be retained as areas of environmental protection and are not to form a component of the urban development of Lot 156 including roads and storm water treatment systems. To best manage these areas, and in light of the sites high conservation value, Council considers the dedication of these areas to be retained in single ownership and managed for environmental purposes a high priority. Council would consider dedication into public ownership if that dedication included an appropriate rehabilitation and management program to ensure the ongoing management for conservation purposes. Further information regarding the protection and restoration of the estuary and foreshore areas can be found within Council's relevant Tweed Coast Estuary Management Plan.

The final area of environmental value relates to the existing stand of vegetation located along the northern interface of Lot 156 with Creek Street. The value of this vegetation is recognized in its contribution to the overall visual amenity of Creek Street. In this regard, retention of this vegetation is required, and its protection and management should be considered within any future development.



<p>Precinct Boundary Creek Street Precinct</p> <p>2012 Aerial Imagery SOURCE: Aerial imagery was captured on 6th to 9th May 2012 © AAM Pty Ltd</p>	<p>COMBINED ENVIRONMENTAL CONSTRAINTS</p> <p>Vegetation SOURCE: Vegetation mapping carried out by Henry James 2009 and verified by Tweed Shire Council in 2013</p> <p>Coastal Wetlands State Environmental Planning Policy No.14 SOURCE: NSW Planning & Environment</p>	<p>Coastal Wetlands State Environmental Planning Policy No.14 SOURCE: NSW Planning & Environment</p> <p>Local Environmental Plan 2000 SOURCE: Tweed Shire Council Environmental Protection Zones</p>	<p>Wetlands Conservation Value SOURCE: NSW Department of Planning Part of the NSW Comprehensive Coastal Assessment (CCA). Wetlands of High Conservation Value and Their Threats in the Tweed Catchment.</p> <p>Wetlands SOURCE: NSW National Parks and Wildlife Service. Wetlands of NSW</p>	<p>Directory of Important Wetlands SOURCE: Australian Government Department of the Environment and Heritage, Directory of Important Wetlands Spatial Database Including Wetlands Type and Criteria.</p>
---	--	--	--	---

Figure 4.10 - Lot 156 Developable Footprint

Strategy 03 - Ensure the development of Lot 156 responds to its site constraints and seamlessly integrates into the existing character of Creek Street.

Whilst significant in land area, Lot 156 is a highly constrained site with only a small proportion being developable. Any future development over this defined footprint is to integrate with the existing Creek Street built and natural character. Whilst it is recognised that Creek Street has a lineal pattern of development, and that Lot 156 will present a departure from this pattern, the remaining underlying streetscape and built form character and design elements should be consistent.

The statutory framework for the site is to firstly reflect the environmental attributes of the site, which will result in a defined development footprint based on established environmental constraints and buffers. Likewise, the developable footprint will reflect the statutory framework of the Creek Street character, being a maximum building height of 8 meters, low density residential development on lots greater than 700m² in size.

The interface of environment protection and urban development areas is critical to achieving a satisfactory environmental protection and urban design outcome for the site. In this regard, road access is to form the interface between residential development and buffer areas and is to be located within the within the identified developable footprint. Creation of new allotments for residential accommodation outside the ring road interface is not the desired outcome for the development of the site.

In responding to the flood liability of the site and the existing character, filling of the site is to be limited to achieving compliant road and drainage works. In this regard, precinct specific controls are provided regarding the level of the road network which depart from the provisions of Council's Flood Liable Land provisions in acknowledgement of the unique site conditions, anticipated yield and desired infrastructure provision. The filling of land to achieve building pads above flood levels is not an acceptable outcome for the site. The promotion of flood resilient housing types which utilise suspended structural systems to achieve free board above the design flood level, increase site area for infiltration and allow for free flow of flood waters beneath the elevated dwelling is the desired outcome for Lot 156.

Other critical considerations for the development of Lot 156 in achieving the desired integration into the Creek Street streetscape include the existing linear vegetation at the Creek Street/Lot 156 interface. In this regard, the existing vegetation along the sites Creek Street interface is to be investigated further, however it's retention and protection is encouraged and this may be through civil means (i.e. Section 88B Instrument). Future development will need to ensure that an appropriate integrating design response to the Creek Street streetscape including fence design is achieved for lots adjoining Creek Street. Likewise, the existing built form character which was identified in Section 4.2.1 is to form the design controls for future development.

Strategy 04 - Retain and compliment views and vistas

Much of the Creek Street precinct is highly visible from public domain areas including the view west from the bridge. Accordingly, maintaining an appropriate balance of the predominant natural setting with restrained built form which will potentially be visible from public areas will be vital in maintaining the existing character of the precinct. As such a portion of the eastern boundary of Lot 156 should be reinstated with native vegetation to form visual buffer of future development as viewed from Bridge Looking West (see section 5.5) Visual Settings.

Strategy 05 - Encourage best practice built form and landscaping

In addition to the built form and landscape character components previously discussed, future development applications are to embody best practice built form and landscaping principles within their design. Refer to Part 07 Design Resources.



Houses are designed to employ passive solar design principles and respond to the sites environmental conditions.



Single detached houses predominate throughout the precinct on both new and existing lots.



Landscape setbacks and either no fences or low and open fences are to be used to retain the qualities of the precinct on both new and existing lots.



Alternative solutions to concrete and bitumen hard stand areas are to be used on both new and existing lots.

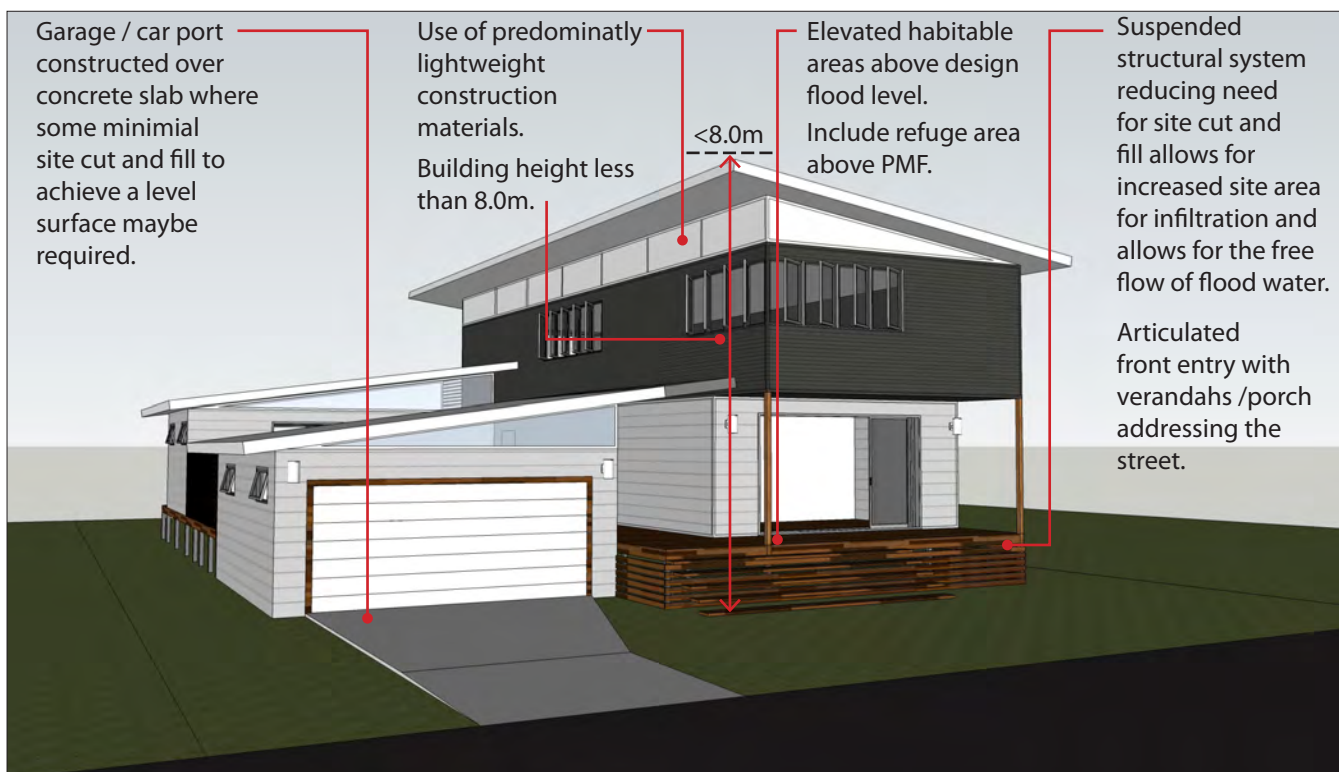


Figure 4.11 Indicative flood resilient house design principles

4.2.2.1 Strategy Principles

1. Retain the existing character of the Creek Street Precinct by:
 - a) providing a statutory framework that:
 - limits development to a maximum height of 8m,
 - retains the caravan park and associated private recreation uses,
 - retains the use of Creek Street for low density residential purposes,
 - ensures any development of Lot 156 continues the low density residential character of Creek Street, and
 - protects and manages land of environmental significance
 - b) providing a non-statutory framework that:
 - identifies land not suitable for urban development and provide guidance on its improvement and management
 - includes design controls that ensure the prevailing built form characteristics are realised in contemporary development, and
 - provides precinct specific guidance with regard to flood design response and Creek Street design.
2. Protect and manage land of environmental significance or value by:
 - a) providing a statutory and non statutory framework that includes environmental protection of land not suitable for urban development,
 - b) ensuring ecological restoration and ongoing management of the creek, its foreshore and land identified as possessing environmental qualities, and
 - c) encouraging the retention and continued plantings that are consistent with the existing Creek Street streetscape.
3. Ensure the development of Lot 156 responds to its site constraints and seamlessly integrates into the existing character of Creek Street by:
 - a) providing a statutory and non-statutory framework consistent along the Creek Street
 - b) encouraging engineering solutions and upgrades are designed to retain existing mature native vegetation to maintain the streetscape and pedestrian environment for the length of Creek Street.
4. Retain and compliment views and vistas by:
 - a) Providing both a statutory and non-statutory framework that maintains the relationship of built form and natural environment/landscape that is present throughout the Creek Street precinct.
 - b) Requiring future applications demonstrate their impact within key view fields, and
 - c) Encouraging the use of landscaping with appropriate species and scale to contribute to the character of the Creek Street precinct from public domain areas.
5. Encourage best practice built form and landscaping by:
 - a) Encourage the built form character elements of the precinct to be considered in future development,
 - b) Ensure built form includes legible street address, suspended structural systems, predominately lightweight materials and articulated facades, and
 - c) Encourage built form design that integrates passive design principles.

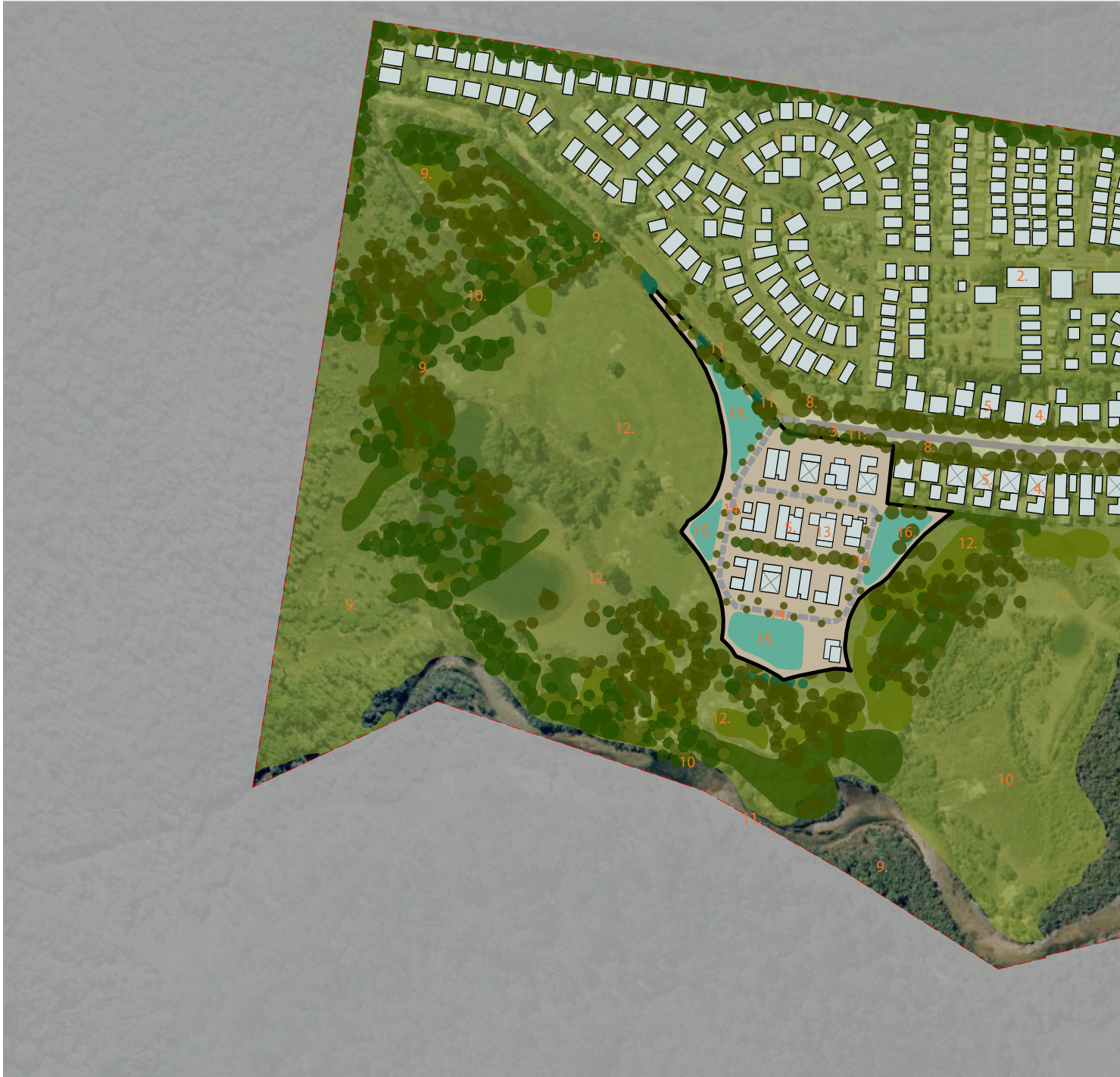


Figure 4.12 Creek Street Precinct Illustrative Plan

4.2.2.2 Diagrammatic Representation

1. The current use and utility of the caravan park is retained.
2. Park structures, caravans and tents are small in footprint and provide open space around them. Very low structures to match those existing are suitable.
3. Where fences are provided along Creek Street they are low and open.
4. Low density residential land use predominately throughout the precinct.
5. New buildings complement the character of a small coastal settlement by responding to the environment, being of an appropriate height, scale and form and rich in a mixture of coastal materials and detailing. Promote suspended structural systems to allow elevation above design flood level, allow for greater site infiltration, free flow of flood water and minimal site cut and fill.
6. Setbacks allow for dense landscaping and mature vegetation along the street and in rear yards.
7. Mature trees are retained within the front and rear setback of lots.
8. New street trees and verge landscaping complement existing vegetation.
9. All of the existing natural areas: parks, reserves, conservation areas and foreshores are retained, rehabilitated and managed over the long term.
10. Christies Creek foreshore riparian areas are protected and managed to ensure the integrity of the waterway is retained and to provide a buffer between urban uses and ecological areas.
11. Vegetation retained along the Creek Street view corridor.
12. Retain environmental zones and identified environmental buffer areas within a single residue allotment for rehabilitation, ongoing care control and management to be incorporated into the surrounding conservation network.
13. Low density residential subdivision developable footprint. Allotments consistent with existing pattern of development along Creek Street by way of density, lot size, floor space ratio, setback, building height, building type and structural system. No site fill for the purposes of creating a building pad above the flood design level and PMF refuge will be required.
14. Internal road to form interface with buffer areas rather than back fences for ease of maintenance access and to act as a bushfire buffer as well as achieving a preferred urban design outcome.
15. Integrate areas of stormwater treatment and infiltration within the developable footprint.
16. Reinststate native vegetation to form visual buffer of future development as viewed from Bridge Looking West (see section 5.5).



4.2.2.2 Public Domain Strategies and Implementation

Christies Creek foreshore

The Creek foreshore is an important environmental area. The key concern for riparian areas is to provide habitat and natural bank stabilisation to protect the integrity of the aquatic and estuarine environment.

A buffer is required between private properties and the waterway to separate urban uses and ecological systems. The buffer is to be created with appropriate revegetation, weed control and sensitive bank stabilisation solutions where necessary.

The key strategies for the Christies Creek foreshore are to:

- a. Establish a riparian, saltmarsh and terrestrial vegetation buffers.
- b. Re-establish native indigenous species.
- c. Re-establish the natural shoreline.
- d. Protect environmental systems.
- e. Provide public access to Christies Creek where appropriate.

Implementation

1. A riparian buffer along Christies Creek is to be achieved in accordance with the Coastal Zone Management Plan for Tweed Coast Estuaries 2013 and subject to merit-based assessment on a case by case basis.
2. Native vegetation is to be retained and restored to protect the creek edge and ecology in accordance with the Tweed Coast Estuary Management Plan 2004-2008.
3. A management plan is to be for the creek foreshore to be consistent with this development control plan.
4. Detailed landscape plans and management are to be undertaken in consultation with the community and stakeholders using this strategy as a guide.

Creek Street

(Refer to 4.2.1 Existing Character, Creek Street Precinct for extent and location of Creek Street.)

Creek Street is to be retained and reinforced as a quiet residential street accessible via the Tweed Coast Road. It will provide visual and pedestrian access to Christies Creek.

Creek Street is to retain its informal landscape character with private garden landscaping appearing to blend with streetscape vegetation.

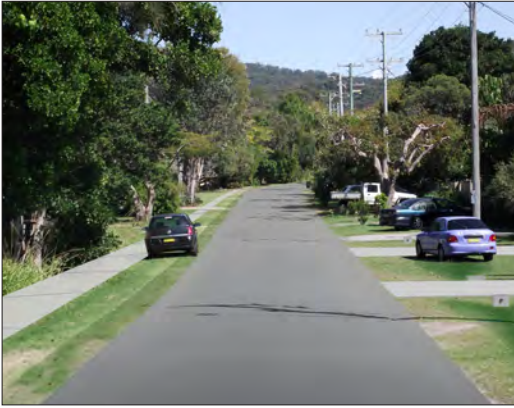


Existing views along Creek Street looking west

The generous grassed street reserves are to continue to provide pedestrian amenity and are to be enhanced with additional planting for shade and ecological improvements.

The key strategies for Creek Street are to:

1. Retain a pleasant and safe pedestrian experience by protecting existing street trees and not disrupting existing views and vistas.
2. Ensuring the natural qualities of the street are retained by choosing local and indigenous species.
3. Retain grassed verges and unformed kerb and gutter.
4. Provide soft engineering techniques such as bioretention swales within the street reserve for stormwater and road runoff treatment.
5. Simplify the visual qualities of the street by undergrounding power lines.
6. Ensure that new lots along Creek Street match existing lots in terms of the lot width, the building type, the setback and landscaping.
7. Ensure new lots do not change the view corridor.
8. Ensure that the vegetation surrounding the pump station to the east of Creek Street is protected and retained where possible.



Photomontage of Creek street upgrade

- 6.0m pavement width
- Soft unformed edges (no kerb and gutter)
- 1.2m footpath along southern side

Implementation

Detailed streetscape plans are to be undertaken in consultation with the community and stakeholders using this strategy as a guide.

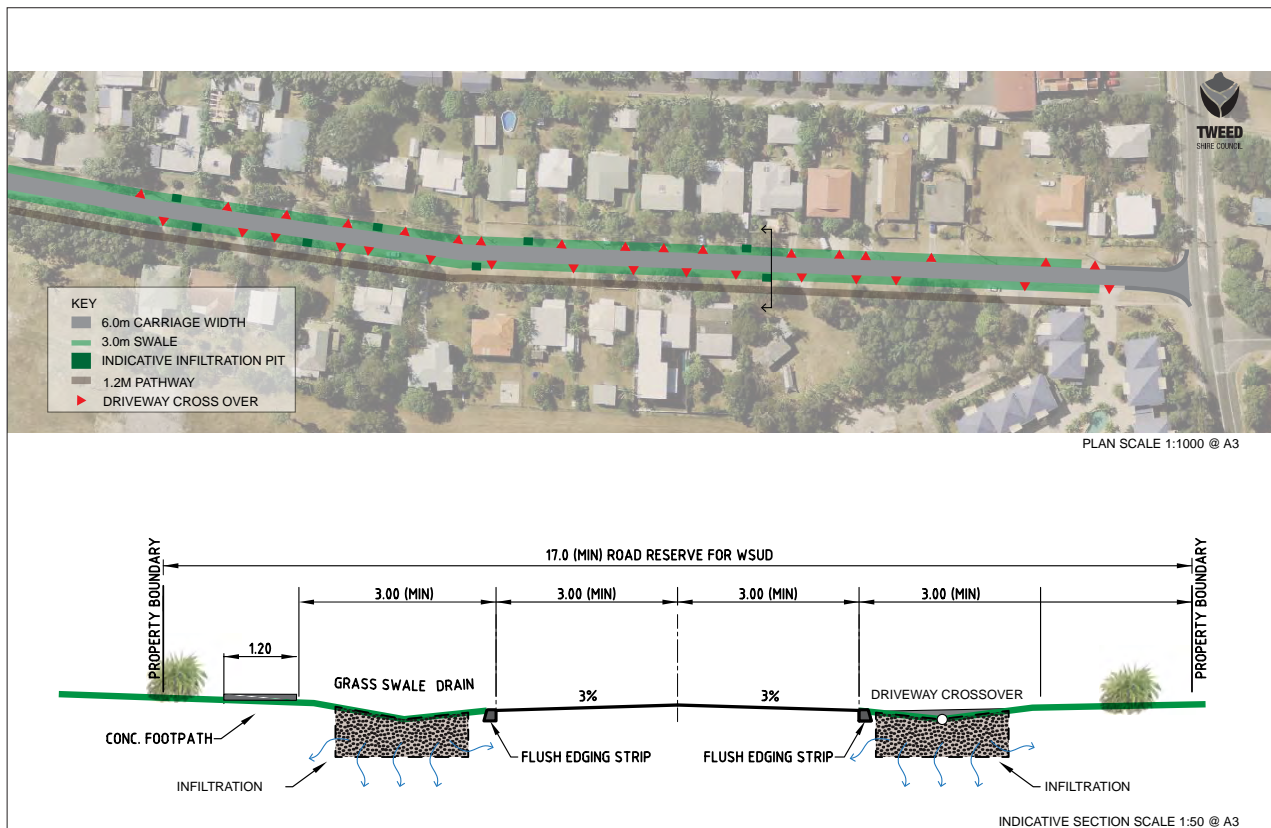
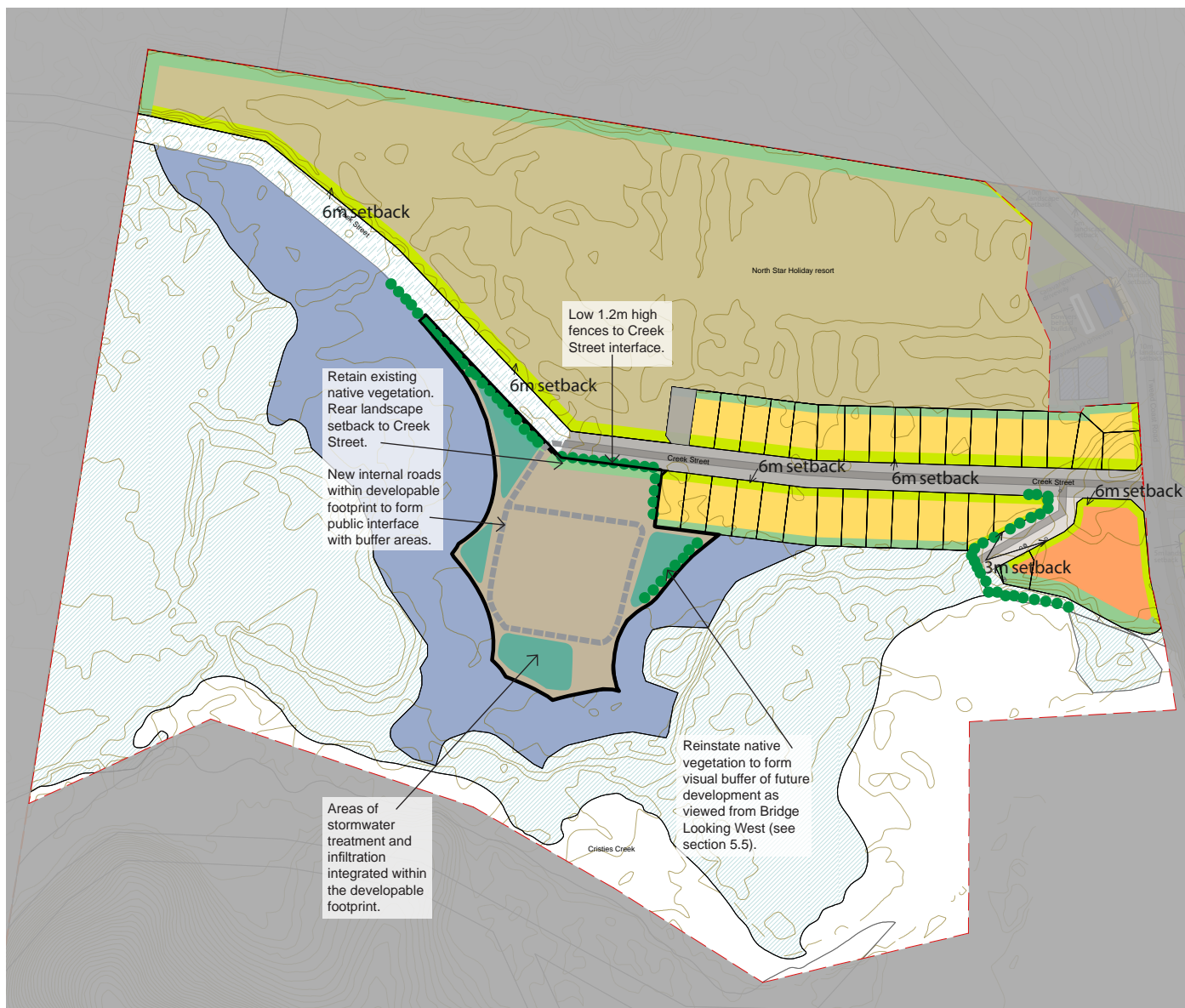


Figure 4.13 Indicative plan and section looking west along Creek Street



Key











- | | |
|--|---|
|  Precinct boundary |  Stormwater treatment/infiltration |
|  Caravan Park |  Front setbacks |
|  Building types: Houses, Duplexes |  Rear setbacks refer to Part 6 |
|  Building types: Houses, Duplexes, townhouses |  Indicative location of trees and vegetation to be retained. |
|  Environmental Buffer area | |
|  Lot 156 Developable footprint | |

Figure 4.14 Control Diagram - Creek Street

4.2.3 CONTROLS

4.2.3.1 Guide to Using the Controls

For development controls for land within Creek Street refer to:

- i. This section: Section 4.2.3 Controls - Creek Street.
- ii. Section 5 - Visual Settings.
- iii. Section 6 - Building Type Controls.
- iv. Section 7 - Built Form and Landscape Ideas.
- v. Tweed Development Control Plan.
- vi. Tweed Coast Estuary Management Plan 2004-2008, Cudgera, Cudgen and Mooball Creeks.

4.2.3.2 Objectives

The purpose of this section is to provide controls for the development of urban land.

The intention of the controls is to ensure:

- a. Cohesive high quality development that creates the character of a small coastal settlement specific to Hastings Point.
- b. Buildings respond to the natural environment, environmental conditions and provide quality places to live and visit.
- c. Restrict site fill which impacts on adjoining land and water resources and in particular:
 - changing the existing quality of the landscape and visual setting to the settlement;
 - removal of vegetation generally and within key visual settings;
 - loss of visual privacy;
 - unsightly retaining walls or unsightly embankments at boundaries;
 - destruction of ecological systems and species, and
 - destruction of the delicate composition of soil and water gradations from land to water.
- d. Buildings which respond to the topographic, flooding and environmental constraints of the precinct by reducing the amount of site fill and adopting suspended flood resilient design approaches.
- e. Where ever possible local indigenous and mature vegetation is retained and that local indigenous species are planted.

- f. The management of flooding and acid sulphate soil conditions.
- g. The creek and other natural systems are retained, protected, rehabilitated and managed for conservation purposes.
- h. Streets and roads are pleasant and safe pedestrian environments as well as providing access for vehicles.
- i. Public domain areas retain the qualities, characteristics and accessibility currently enjoyed.
- j. Residential land is efficiently used within the constraints of the land.
- k. Views and vistas are retained.
- l. Development is confined to compatible building types, being dwelling houses, dual occupancy housing and granny flats.

4.2.3.3 Controls

1. Site fill is to be limited to achieving compliant road and drainage works. The filling of land to achieve building pads above flood levels is not an acceptable outcome and will not be supported due to adverse impacts on environmental buffer zone areas, allotment interface impacts, streetscape and visual character impacts and localised flood impacts.
2. Dwelling design is to utilise a suspended structural system (apart from slab to garage and car port areas) to elevate habitable floor levels above the Council adopted floor level for development (climate change flood level) without the need of extensive site fill (refer Figure 4.11).
3. Lots likely to be affected by views are to comply with Part 5 - Visual Settings. Lots affected by Visual Settings include:
 - i. From the headland (A): affects lots along Creek Street and lot 156.
 - ii. Creek Street (B): affects Lot 156.
 - iii. Looking west from the bridge (C): affects Lot 156 and Creek Street.
4. Any upgrade works to Creek Street are to retain the existing mature vegetation and informal character including grassed verges and no kerb and gutter.
5. Setbacks are to be in accordance with the Control Diagram Creek Street. Where a setback dimension has not been indicated on the Control Diagram refer to Part 6 - Building Type Controls.
6. Fencing along Creek Street is to be a maximum height of 1.2m.

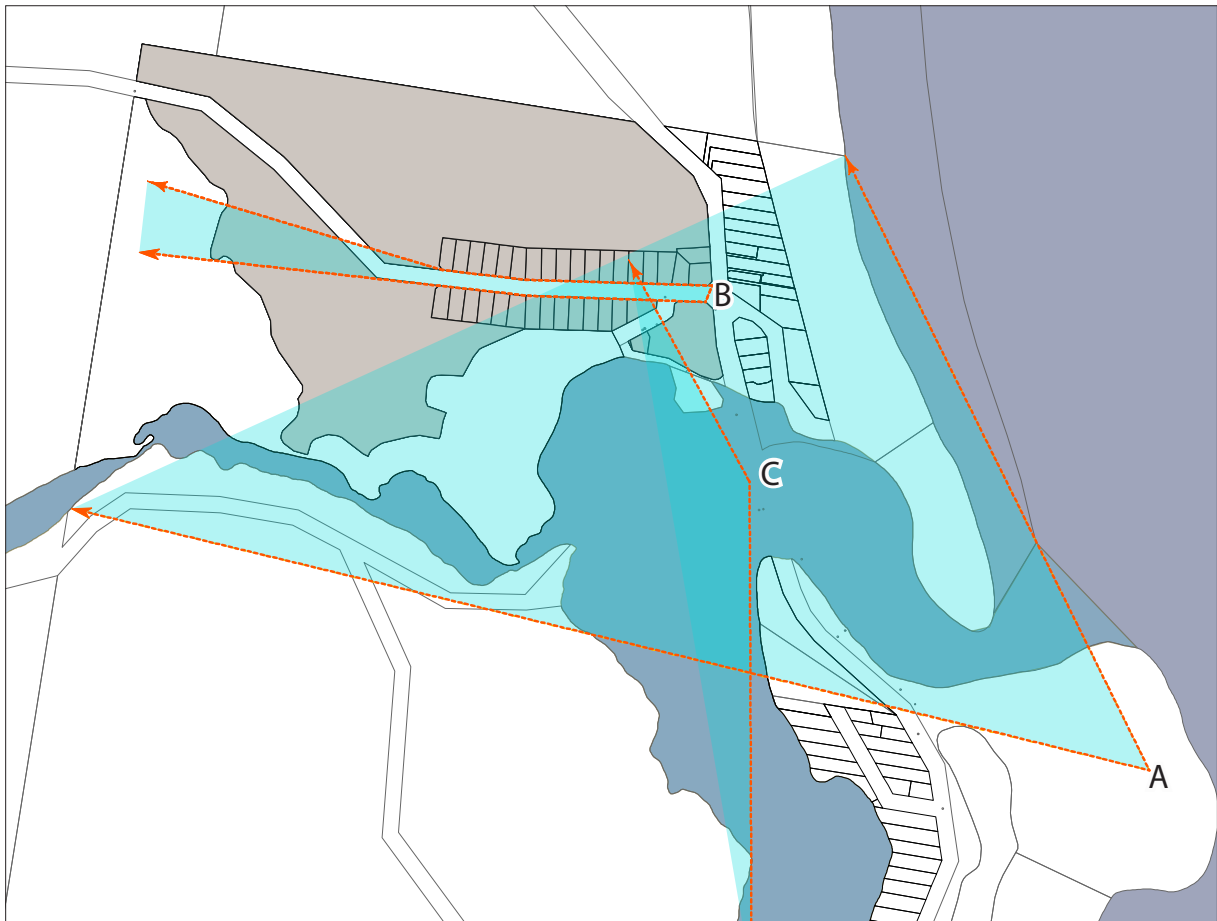


Figure 4.15 Control Diagram - Creek Street Visual Settings

4.2.3.4 Additional Controls - Lot 156

7. Any residential subdivision including access roads, verges and infiltration areas over Lot 156 are to be contained within the developable footprint identified in Figure 4.10 Environmental Buffer and Developable Footprint diagram, Figure 4.14 Control Diagram - Creek Street and Figure 4.15 Control Diagram - Creek Street Visual Settings.
8. Roads are to form the interface edge to environmental buffer areas rather than back fences to enable ease of buffer and environmental area maintenance, form part of a bushfire buffer and provide a public rather than private interface.
9. Lands outside of the developable footprint including areas of environmental protection and any identified environmental buffers are to be amalgamated into a single residual allotment for ongoing future care, control and management integrating with the broader existing nature conservation estate network.
10. To assist in protecting native wildlife a restriction on the keeping of domestic animals is to be applied to any future residential development.
11. Land outside the developable footprint are to be rehabilitated and restored to re-establish habitat reflective of pre-clearing communities.
12. Subdivision design is to be compatible with the existing pattern of low density residential development along Creek Street in terms of demonstrated compatibility of density, lot size, lot dimension, lot shape, setback, building height and low density residential building type.
13. Use best practice stormwater infrastructure design techniques to demonstrate that post development flows achieve relevant contemporary receiving water standards, consider the assimilation capacity of receiving waters and avoid long term negative impact on important estuarine communities such as saltmarsh habitat.
14. The existing mature native trees lining Lot 156 street interface with Creek Street (identified within Figure 4.14 Control Diagram - Creek Street) are to be retained and protected. Future allotments which may directly adjoin Creek Street could gain access via an internal road to avoid clearing this vegetation otherwise associated with creating new driveway access points off Creek Street.
15. Local native vegetation is to be reinstated along a portion of the eastern boundary of Lot 156 where previous clearing has occurred to provide a visual buffer of future development as viewed from View C Figure 4.15. Also refer Bridge Looking West (see section 5.5).
16. New dwellings within Lot 156 are to provide a PMF refuge in accordance with provisions within Council's Flood Liable Land section of the Tweed DCP.
17. Fencing along Creek Street is to be a maximum height of 1.2m and should not compromise the integrity of the existing mature native vegetation.