

10 February 2011



Landowners Site Analysis Workshop

Area E Locality Based Code

Hello and welcome to the first Area E Landowners Workshop.

Area E Process – Where we are at

Today and the role of the Area E Landowners Workshop
 'Talk – Sketch – Draw'

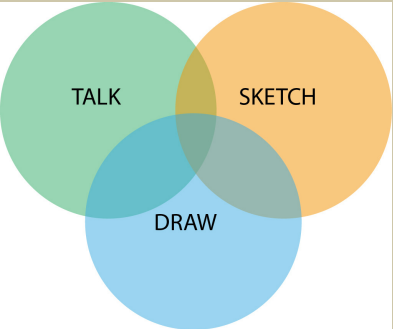
What are we doing ??

What is a Development Control Plan (DCP) ??


A Development Control Plan (DCP) contains detailed guidelines that illustrate the controls that apply to a particular type of development or in a particular area.

A DCP refines or supplements a regional environmental plan or local environmental plan and is made according to the Environmental Planning and Assessment Act 1979.

For example, the LEP provides controls such as zoning and building height, the DCP supplements that information with more site specific and design orientated controls, such as setbacks to the street and side boundaries, colours and materials, landscaping requirements etc.



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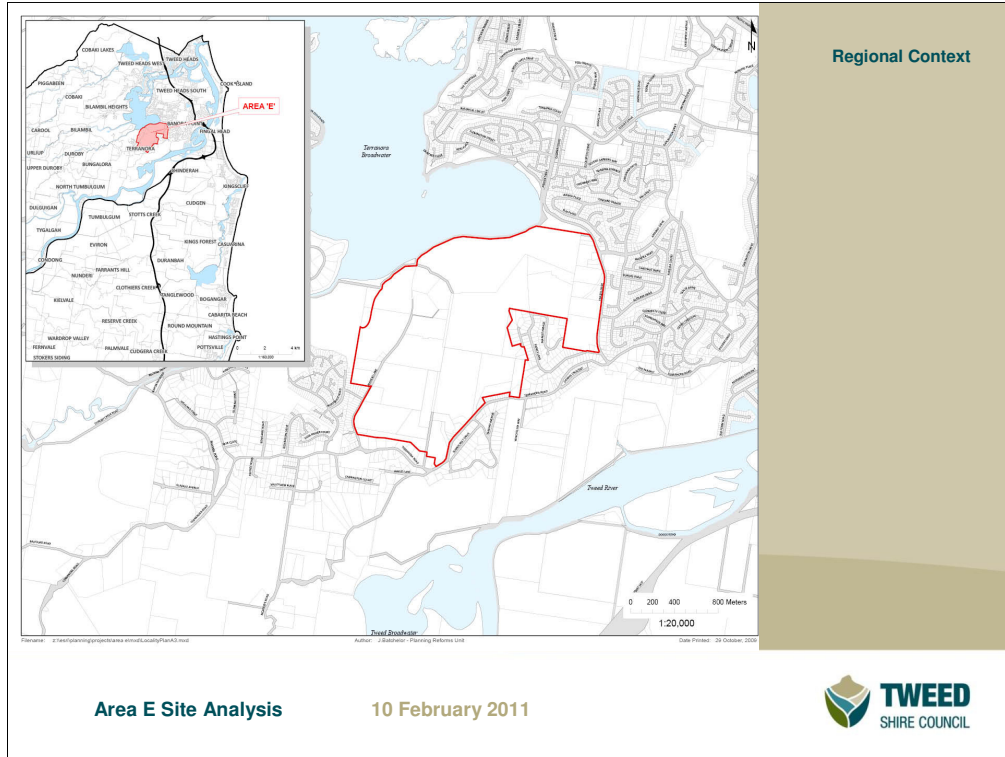
- So What's Happening, What are we doing?

What is Area E?

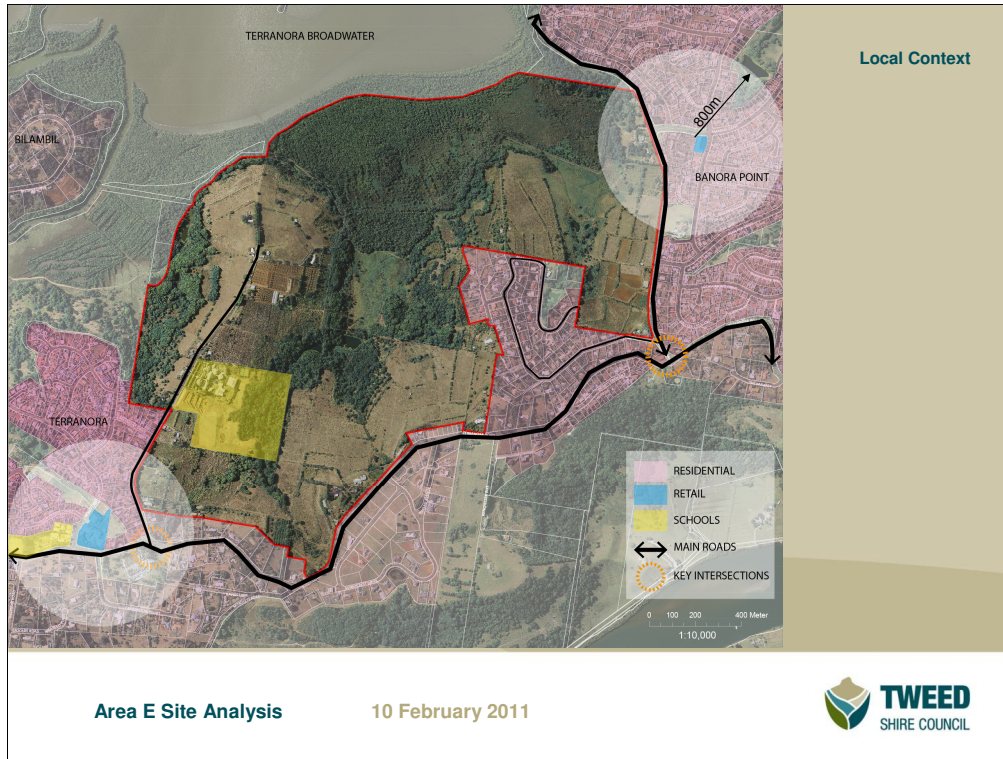
Area E comprises an infill urban release area in the Banora Point/Terranora residential area and presents an opportunity to consolidate the urban footprint by providing housing opportunities for approximately 4,000+ people. Whilst possessing land suitable for urban purposes, Area E also contains extensive areas of environmentally significant vegetation and SEPP 14 wetlands and needs to respect the existing urban fabric, whilst ensuring the efficient use of land.

- What is a DCP??

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As you would all be aware, Area E sits immediately to one of the Shire's strongest growth areas over the past 20 years, being Tweed Heads, Tweed Heads South and Banora Point – and beyond, comprises the tail of the wider continuous lineal urban footprint of the Gold Coast.



Area E is nestled between environmentally sensitive land to the north, the Banora Point township to the east, large lot urban and rural living development to the south and the Terranora village to the west. Within the village of Terranora and the township of Banora Point lot sizes and densities vary within the urban fabric based upon distances to activity nodes such as shops and schools, but also reflective of the landform.

The locale accommodates a range of existing residential densities including the more regular 600-700m² lots within Banora Point and around Terranora, Larger lots along Parks Lane, Market Parade (2000m²), Sunnycrest 4000m². This Map also identifies other key land uses including the Terranora Village retail centre, Amaroo local centre and Lindisfarne. Local context is connected by the main higher order road Terranora Road and Fraser Drive, the main existing public transport route into Tweed Heads.



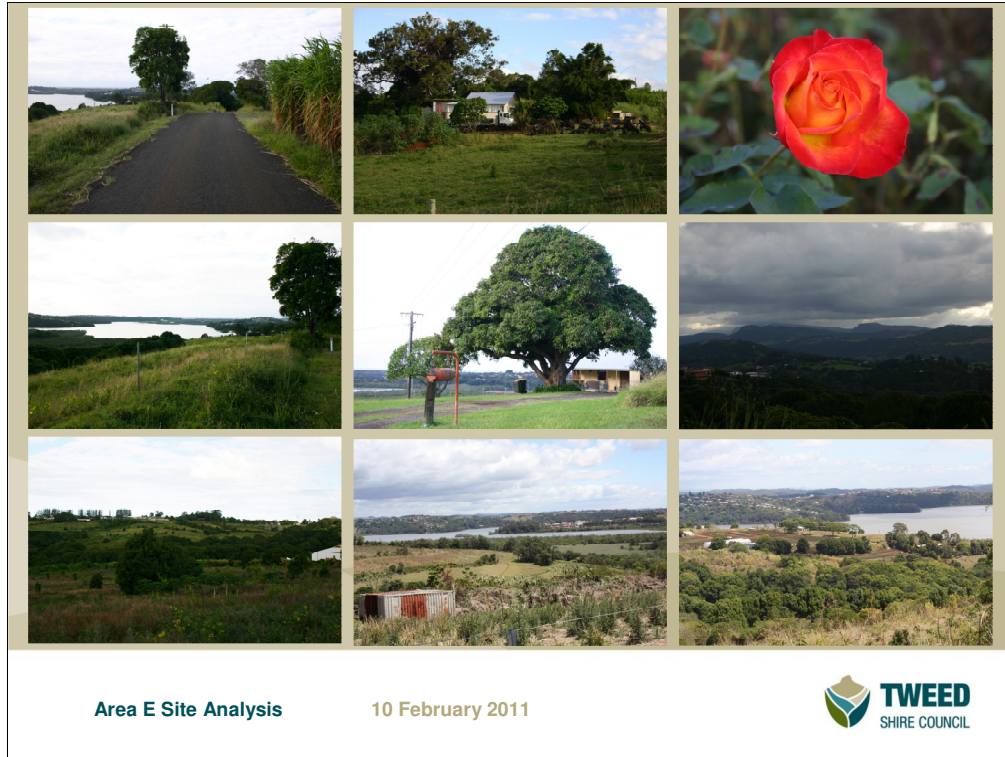
Some panoramic view across the Area E site clearly define the existing visual and landscape character of the site. The key defining elements including its undulating topography, open paddocks which are separated by tree lines valleys and pockets of remnant bushland.

The site affords many fantastic views including regional views towards Tweed Heads and the Gold Coast and more localised views across the site.



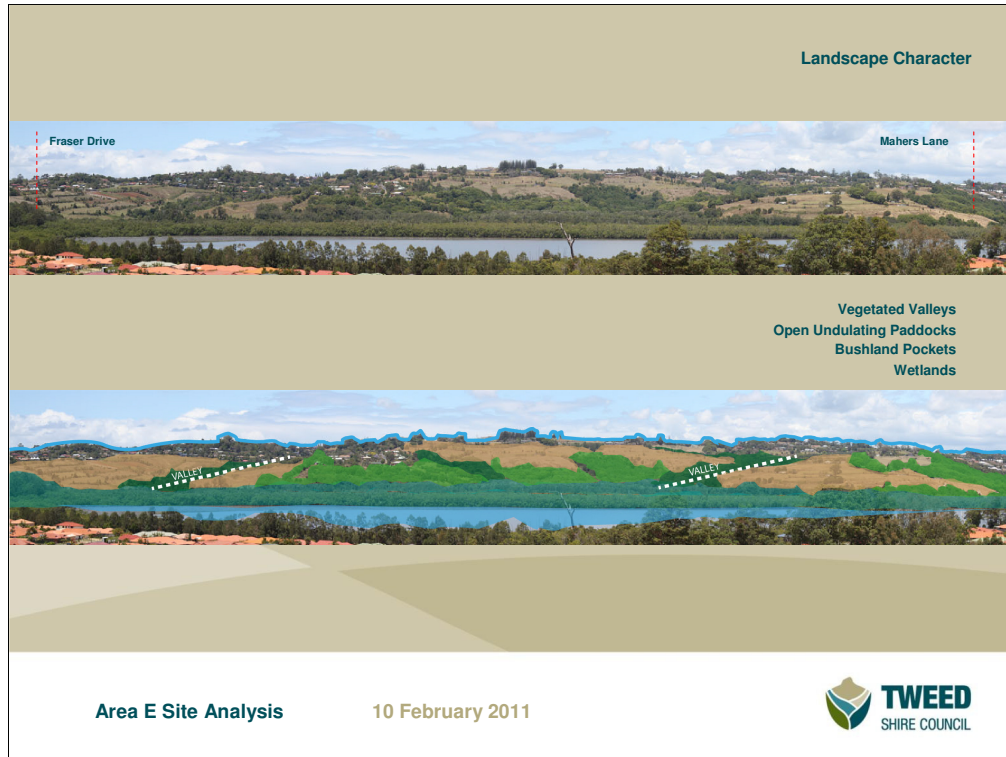
The site has a fantastic north facing downward slope aspect overlooking the Terranora Broadwater. The sloping aspects provide significant opportunity to take advantage of elevated positions to take advantage of prevailing breezes and view.

The rolling topography of the site is a key defining landscape and visual character of the site and should be retained.



This mosaic of Area E images tells us of the existing visual and landscape character. Key features include:

- Predominantly rural,
- Agriculturally themed
- Small width roadways with soft edge,
- Existing dwellings nestled with landscape,
- Undulating landform with panoramic views,
- Existing significant trees which should be retained,
- Tree lined valleys,
- Agricultural roots and soil quality provides an opportunity for an element of food or market garden production to be incorporated.



The following image comprises a panoramic view looking south from Champagne Drive in the Banora Point Flame Tree subdivision. Fraser Drive to the left and Mahers Lane on the right.

Important to recognize that whilst there are significant outbound views, the site is also highly visible from vantage points all around the Terranorra Broadwater. By looking back at the site we are also able to understand some of the key elements which defines the sites visual and landscape character.

The image below identifies low area waters edge and wetland vegetation up to about 10m high. We can see the vegetated valleys or green fingers climb up the sites two main valleys. Also the large tracts of bushland vegetation, some native some exotic including camphor laurel – local knowledge in identifying these differences will be valuable. Open undulating paddocks which are each divided and inter-dispersed by these green breaks and green fingers which divides the site into clear pockets or precincts. The varied ridgeline climbing to the highest point around the Sunnycrest subdivision, stand of Norfolk Island trees.

Interesting to see the existing built form, on larger lots how it is nestled within the landscape, surround vegetation and landscape almost obscuring it. Contrasted by the bright orange roofs in bottom left corner which really dominate the view field.

What we have learnt from you



Images from Terranorra Landowners Vision Document

Contemporary urban design, set amongst a mosaic of environmental areas and vegetated open space.

The residential densities and lot layout **minimise urban sprawl**,

ESD principles and are sympathetic to **environmental** and **topographic** constraints,

Ensuring **scenic views** from elevated areas are generally maintained

Focus is upon the village centre containing local-scale retail facilities and a multi-purpose community centre.

A strong private and **public transport** network connects Area E to surrounding localities.

It has high levels of **pedestrian walkability** to community facilities, open space and external areas, via pedestrian pathways, cycleways and walking trails.

A **network** of well-designed **public open spaces** ensures that the community are within walkable distances to recreation opportunities.

The public open spaces provide **visual relief to the urban** environment whilst providing **opportunities for structured sporting activities and casual recreation**.

These attributes all contribute to Area E being a **sustainable community** with strong social wellbeing and liveability.

The Vision that was provided by the Terranorra Land Owners Group detailed the following key principles

Further Strategic Objectives

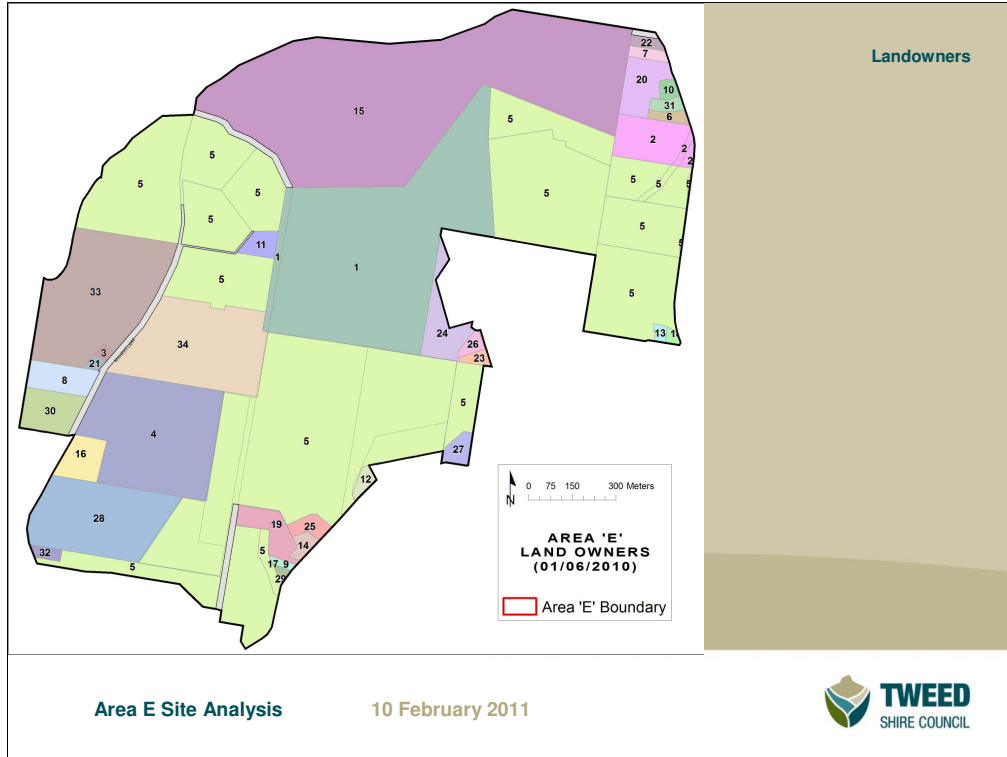
- Providing the orderly and efficient use of residential land on a highly constrained site.
- Pursue best practice master planning and urban design principles including design for solar orientation, WSUD, minimise bulk earth works.
- Providing a suitable mix of allotment sizes and accommodation types
- Playing a pivotal role in the urban fabric, blending town, village and rural living typologies
- Maintaining and respecting the landform – buildings design to landform rather than landform design to buildings.
- Retention of green breaks and view fields
- 6.8ha of Structured Open Space and 4.52 ha of casual open space.
- Provision of infrastructure from water, sewer, roads and community facilities (including 1x Community Meeting Room/Multi-purpose Hall, 1x Neighbourhood Centre, subdivision layout to cater for a preschool)
- Funding of infrastructure across approximately 30 landowners and beyond the contributions cap.
- Desirable elements to give the release area individual appeal and feel, i.e. Community gardens, building types and materials.

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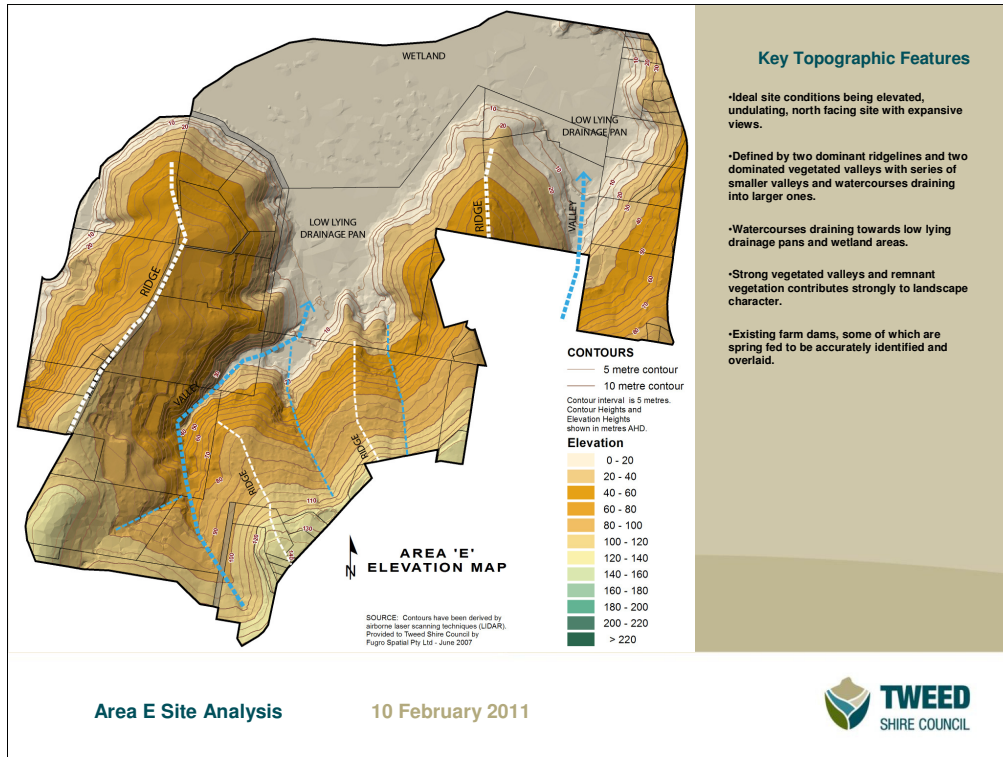
TWEED
SHIRE COUNCIL

Further strategic objectives that the Planning Reform Unit have started to produce based upon a combination of your vision and Council's supporting policy documents.

These strategies will be built upon and refined as a result of more detailed site investigations and feedback as a result of various landowners and public consultation sessions.



Area E comprises of approximately 35 different landowners. The DCP presents the last formal opportunity to consider the site holistically and is therefore of significant importance. The landowners working group meetings have been designed to enable landowners to have their say in the policy preparation in a positive, respectful environment.

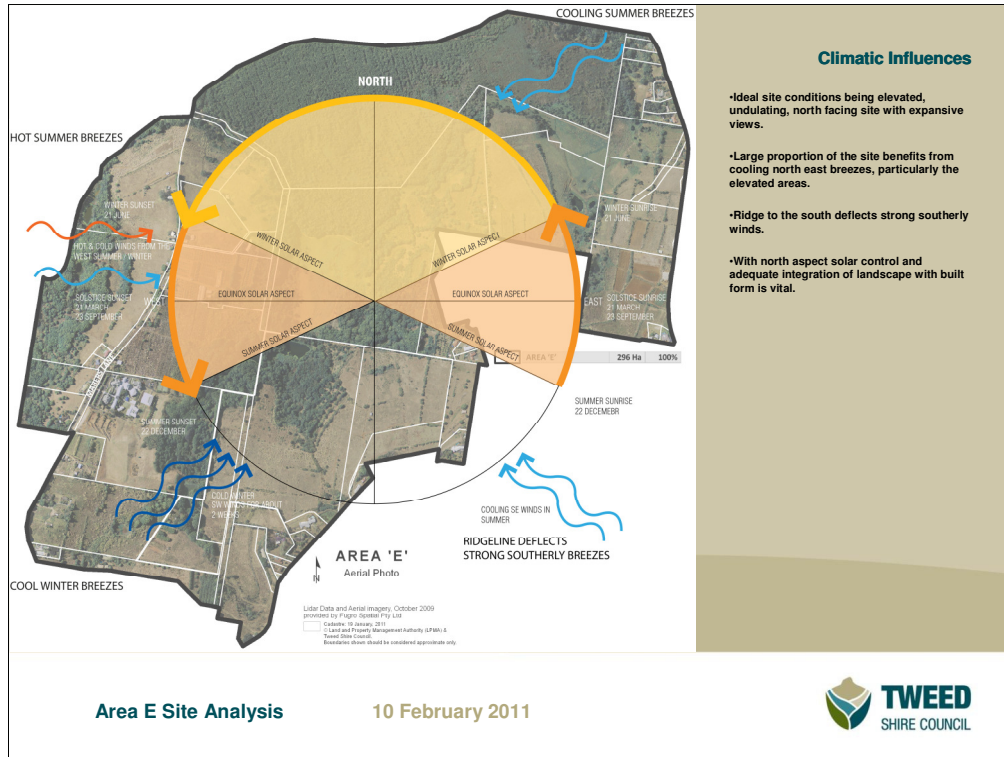


Area E has a significantly undulating landform with a distinctive series of ridges and vegetated valleys which divides the site into 3 distinctive catchments.

The site is dominated by two clear ridge lines separated by a series of vegetated valleys. These valleys form the primary drainage lines of the site which pan out into wetlands on the edge of the Terranorra Broadwater defining the sites northern boundary.

There are a series of smaller drainage lines which feed into these two deeper valleys. The basin area is relatively flat and low lying, and as such is both flood prone and has a higher probability of acid sulfate soil disturbance.

The existing and relatively undisturbed slope across the site ranges from slightly sloping on the top of some of the ridgelines (0-10%) to moderate and steeply sloping areas running down the sides of the ridges ranging from 10% to over 35%.



Aspect

- Moderate temperate to subtropical climate, hot summers and mild winters
- 2400mm rainfall per year on average
- General northern aspect has good solar orientation
- West facing slopes cooler in the mornings and hotter in the afternoon
- East facing receives warming/hot morning light
- High exposure to dry and humid northern winds

Breeze

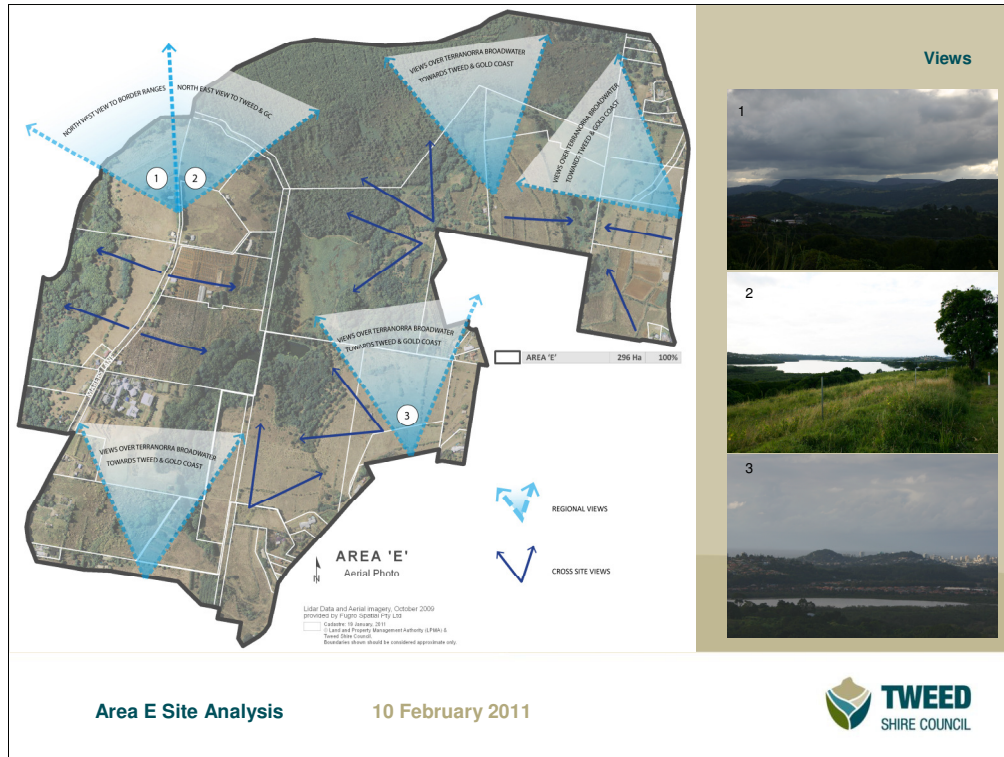
- Cooling effects of wind across the Terranorra Broadwater
- High exposure to cooling nor-easter breezes during summer
- Open nature of much of the site leaves to relatively exposed to the elements both during summer and winter months
- Sloping site, breezes accelerate towards the ridgeline (updrafts).

Micro-Climate

Detailed features of topography create a variety of microclimatic conditions across the site

An assessment of vegetation, aspect and topography factors highlight numerous zones of relative protection from winds, specifically those from the south and west.

Lower lying parts of the site within close proximity to the wetland are vulnerable to higher humidity and heat build up during summer months exacerbated by poor drainage, periodic flooding and less exposure to the cooling nor-Easter breeze in summer months.

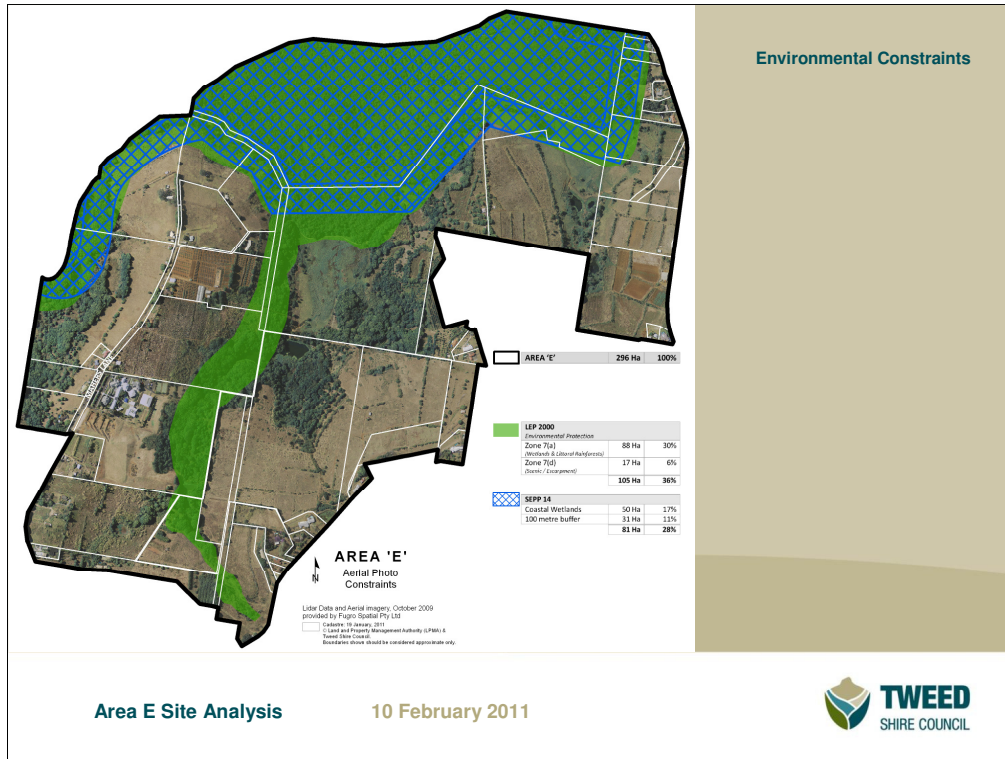


The visual connection the site has with water, border ranges, undulating vegetated hinterland and views towards other surrounding urban settlements including parts of Banora Point to the east and Bilambil to the west forms part of the sites visual character.

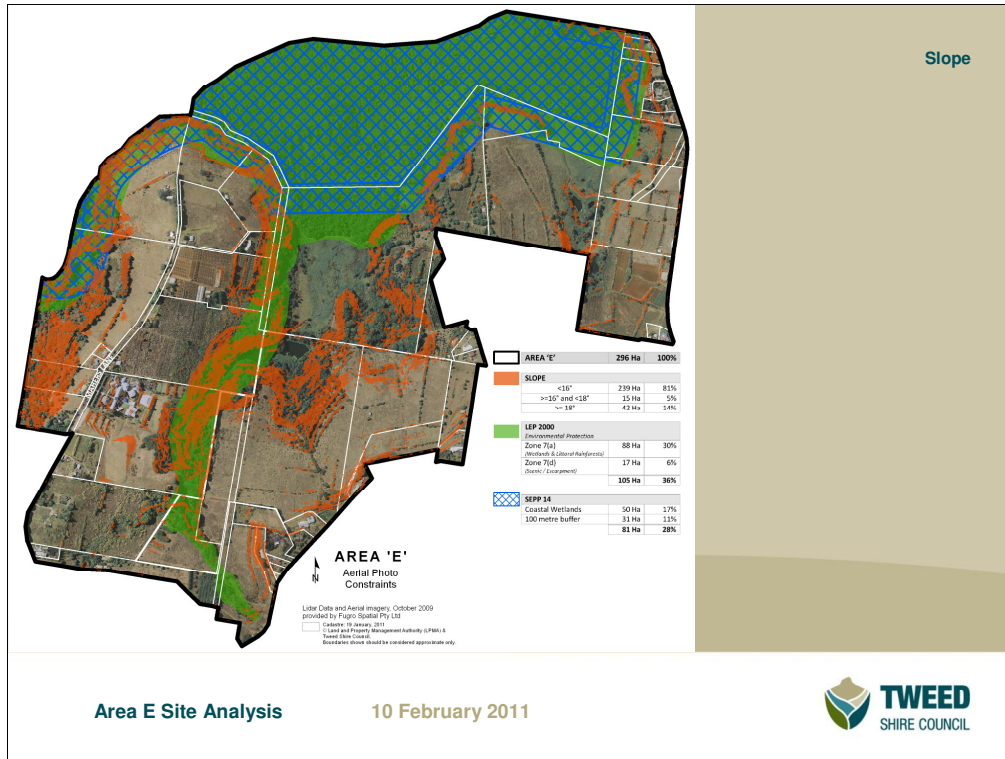
The existing cross site rural - agricultural contained views including tree lined accesses, windbreaks and older farm houses and other agriculturally based built forms also contribute strongly to the sites visual character. Retaining, protecting and highlighting these views should form parts of the overall design strategy for the site.

Some of the best views are experienced from the highest points of the site travelling along Terranorra Road. It is important that these key vantage points and identified view fields are not impeded upon by future development. As such it is important to enforce appropriate building height and form controls where these defined view fields could be compromised.

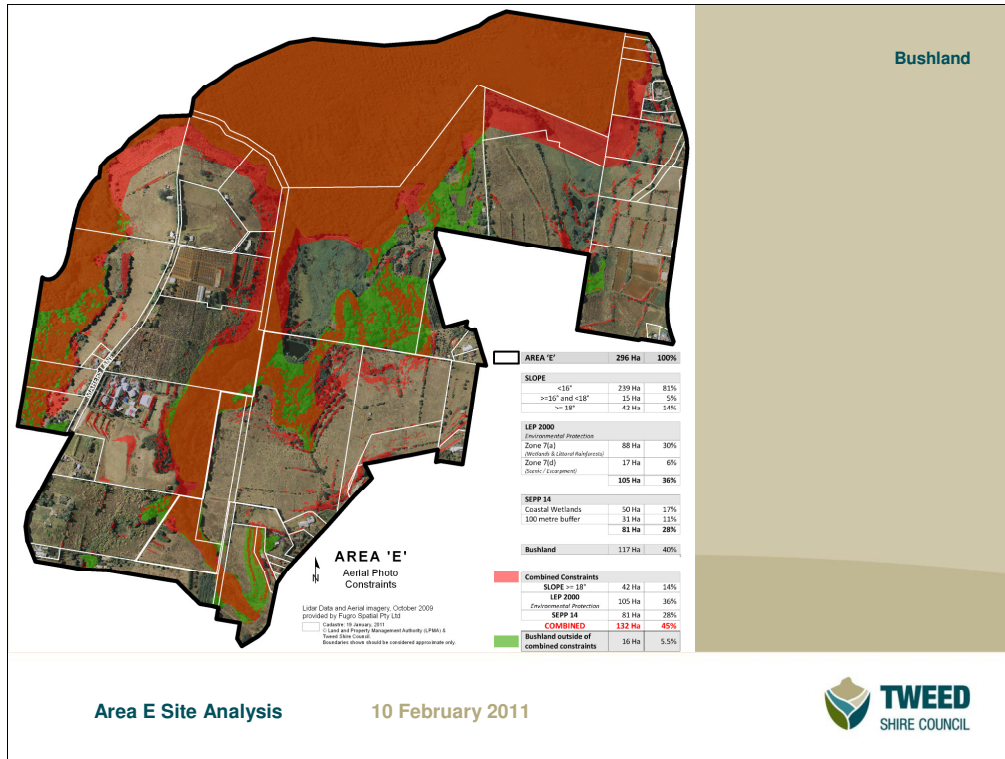
Given that the site is dominated by two clear ridge lines separated by two relatively steep valleys there are a number of important cross-site contained views. This includes the deep vegetated valleys, tree line existing roads and treelined windbreaks across many of the paddocks. As small watercourse run through each of the valleys, opportunity also exists to create views along watercourses and wetland areas which could be realised as part of the design strategy for the site.



To inform the DCP, we start to build up a series of constraint maps and analysis which we review, integrate and overlay to find areas that are highly constrained, less constrained, and relative free of constraint. The first one we start with is the most absolute constraint, being Environmental Protection. This map displays the location of the SEPP 14 Wetlands, 7(a) Environmental Protection Wetlands and Littoral Rainforests, and 7(d) Scenic Escarpment. These areas relate as predominately absolute constraints for urban development, so Council doesn't envisage significant development in these areas.



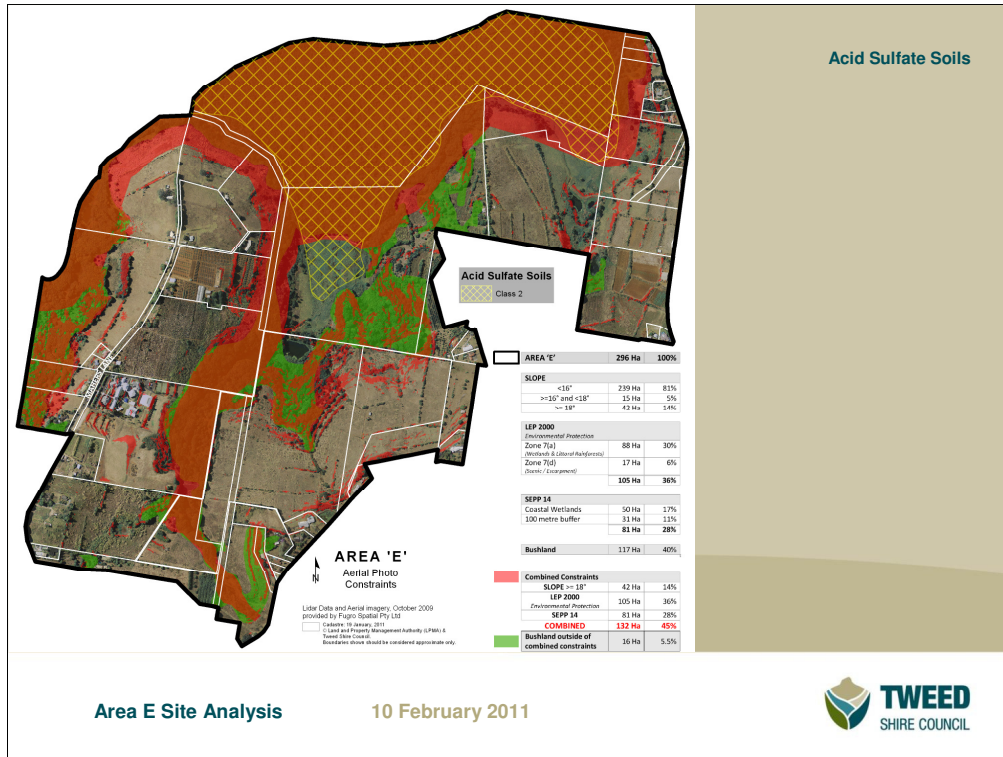
The next constraint we add in is slope. Drawing on the findings of the LES, which identified land in excess of 16 degrees as not suitable for urban development, plus local knowledge and design testing, we have mapped in red areas exceeding 18 degrees. Strictly speaking, this does not form an absolute constraint; however it does provide guidance on lot size and building typology in these areas. The preservation of slope and being respectful to topographic constraints was also identified as a component of the landowners vision – so this map starts to integrate that vision into implementation.



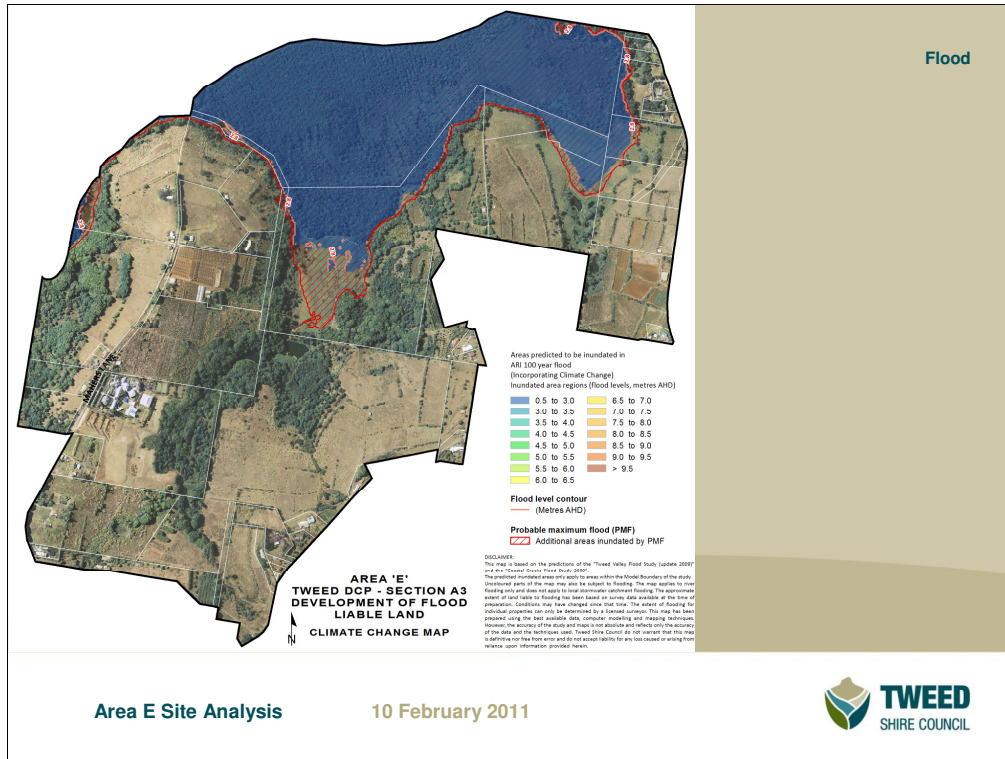
The next constrain we lay over the top to further build up the mosaic is bushland. Bushland is a layer that was born as part of the Tweed Vegetation Management Strategy 2004 and is being implemented through Council's draft Standard Instrument LEP. Much of these tracts were not identified for protection within the LES

As you can see, a significant portion of Area E is affected by the 'Bushland' layer within the Draft LEP, however these areas largely coincide with the land identified as possessing steeper slopes. When combining these constraints is adds greater weight to leaving these areas predominately free of development, or only considering a highly integrated development form.

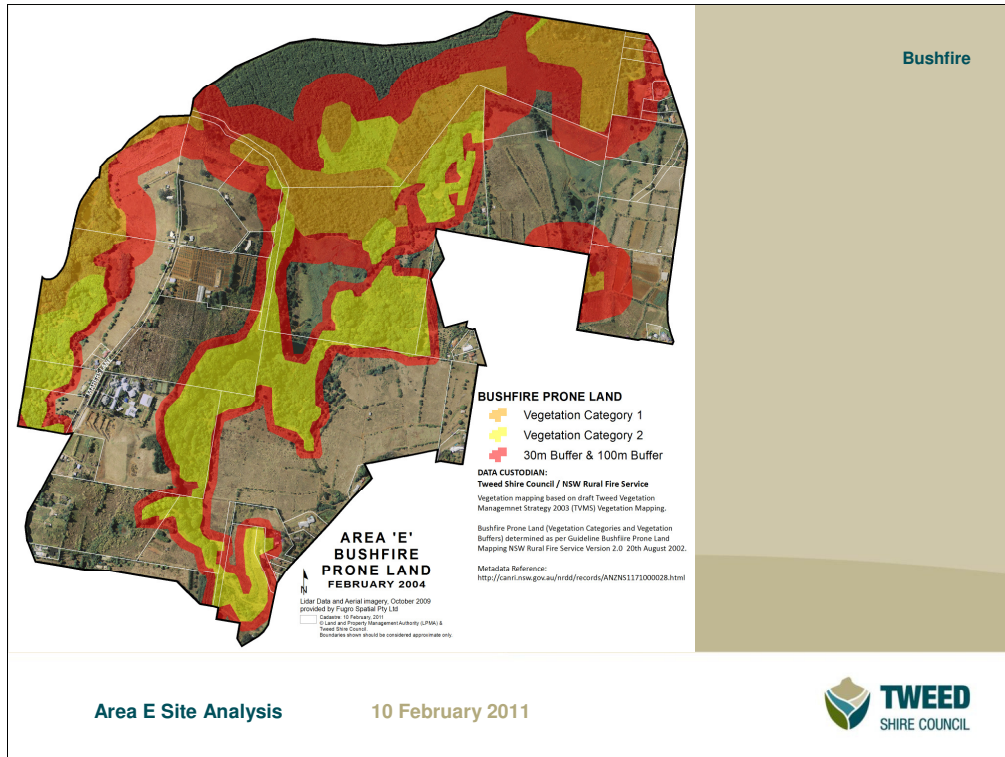
Again, another reason we use this layer is to embody the landowners vision, within which scenic views, ESD principles and visual relief were detailed.



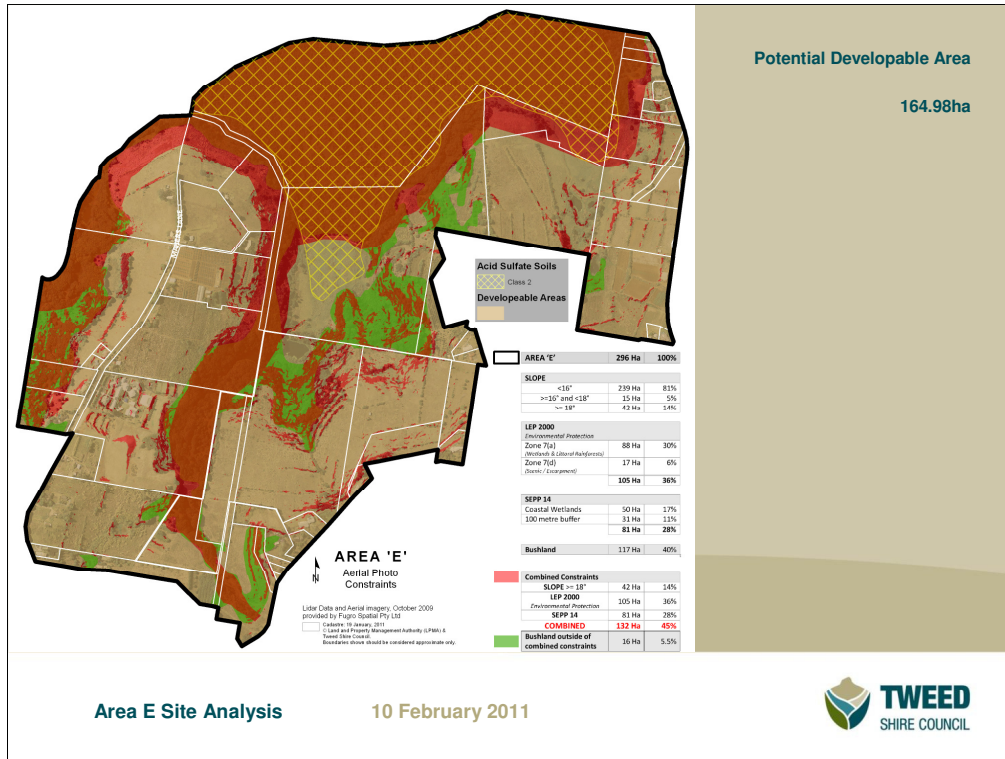
We then move into the less constraining matters. These are constraints that are unlikely to prohibit development, however may guide the type of development, it's design and construction type. This map represents Class 2 Acid sulphate Soils, as you can see, it only applies to the lower portions of developable land. To reflect this constraint, controls are likely to be prescribed discouraging at least full basement carparks, possibly semi basement carparks as well, and encouraging landscape works that will assist in raising the water table.



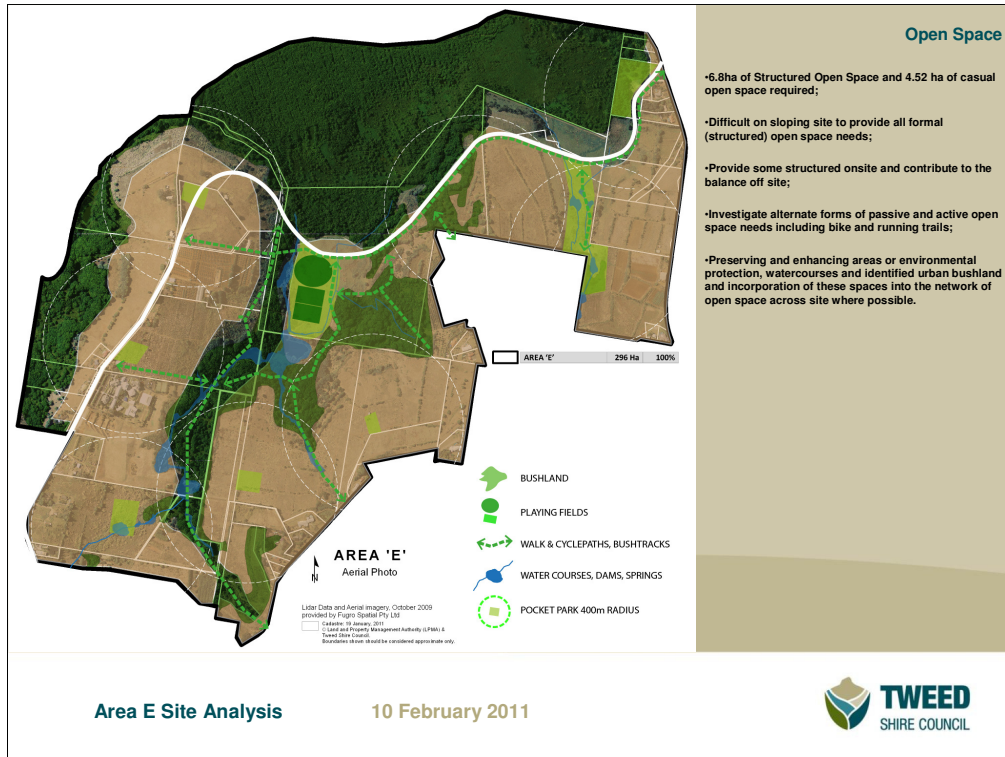
Similarly with flooding, it's highly unlikely that flooding will prohibit development, however it may guide the type of development and it's design. This map represents firstly a 1 in 100 year event, plus the consideration of climate change, and secondly the PMF level, or probable maximum flood.



A final guiding constraint is bushfire. Obviously the bushfire mapping tracing the existing vegetation and the subdivision and dwelling layouts will need to consider buffers and construction materials.



So we lay all these constraints on top of each other to arrive at this map, which broadly identifies the environmental and development footprint. The developable footprint is shown in beige here, which represents approximately 165ha of land – which largely marries with the figures within the LES.

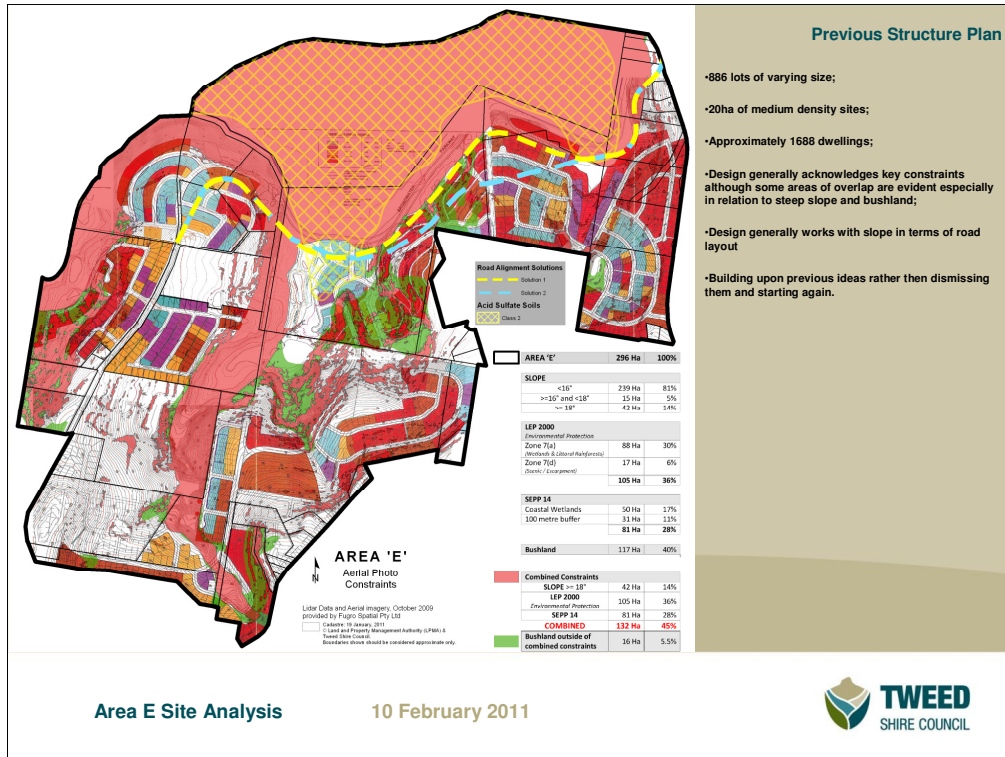


From vision statement:

A **network** of well-designed **public open spaces** ensures that the community are within walkable distances to recreation opportunities.

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This Plan displays a network of green links via watercourses, bush land and environmental areas as key passive open space areas contributing to pedestrian and cycle connectivity. The Planning Reform Unit acknowledges that their will need to be consideration for alternate forms of active open space needs, particularly given the lands topography, for example, a running track through the bush to supplement more formal open space needs. It is considered desirable to maintain and use open watercourses integrated into the residential and open space fabric, inclusion of pocket parks with play equipment, shelters and BBQs, perhaps even community gardens.

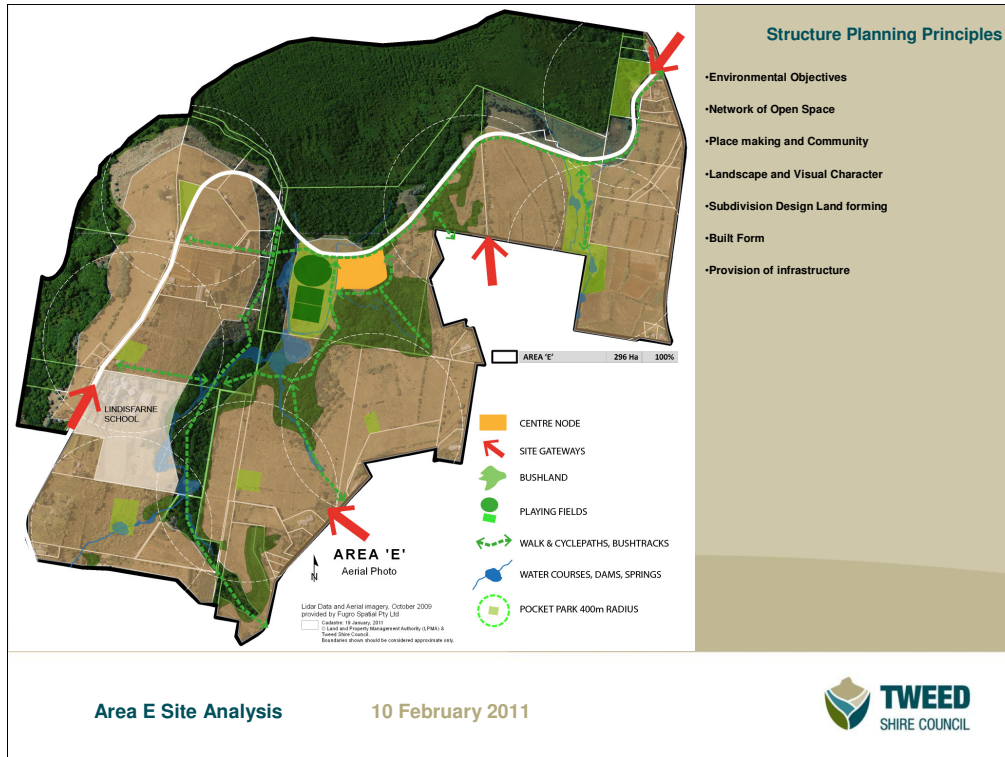


Previous Structure Plan

- 886 lots of varying size;
- 20ha of medium density sites;
- Approximately 1688 dwellings;
- Design generally acknowledges key constraints although some areas of overlap are evident especially in relation to steep slope and bushland;
- Design generally works with slope in terms of road layout
- Building upon previous ideas rather than dismissing them and starting again.

This Map provides an overlay of previous subdivision layouts against the site analysis we detailed earlier. You can see that many of the principles have been incorporated. Development pockets outside of key constrained areas and roads generally working with contours. It also identifies points of overlap with constrained areas and provides a basis to test the site against a number of masterplanning and subdivision design principles.

Further progress will be made build upon previous work, and towards a more holistic and best practice outcome. This includes appropriate development on appropriate parcels of land. For example where constrained overlaps exist restricting development in one area might be countered by and increase of density over a parcel that is more appropriate. As such the net density outcomes are achieved as is a variety of lot sizes and housing types.



Constraints and opportunities overlay provides a good basis for developing master planning and subdivision design principles. The clear or headline principles include:

Environmental

Preservation of environmental zones, maintenance of open drainage networks where possible, preservation of native bush land vegetation where possible. Areas high amenity value.

Open Space

Integration of a variety of open space opportunities including mix of structured and more informal opportunities. Link these back to drainage lines and bush land corridors.

Place making and Community

Identification of the most appropriate area across the site as the centre node centre, retail, community open space. Nexus of uses between. Recognizable centre of the study area.

Landforming

Maintaining the integrity of the undulating landscape. The visual and landscape character of the area, how that relates regionally.

Built form objectives

Appropriate built form to the undulating and sloping sites. Climatically responsive design controls.

Accommodating a range of housing choice, large and small lots, larger integrated development sites for medium density. Affordability.

Also how the development of the site interfaces with the adjoining roads and subdivision areas.

Workshop Exercise



Divide into precinct groups

Ground truthing constraints & opportunities within precinct
e.g. where are the water fed springs, where is the camphor laurel etc

Adaption of structure planning principles to different sites

Your own or additional structure planning principles and considerations

Aspirations of individual land owners

Expression of development ambitions

Draw and trace over the top of provided plans

Area E Site Analysis

10 February 2011



So what we are going to do now is workshop some of the things we've worked through today and the specifics in terms of your area, so this is your chance to point out what we may have missed, for example if there's a dams we haven't picked up, or an area water runs over in heavy storm events, what areas might be high eroded, or have we said something is bushland – when you think it's cleared paddock. It also presents a chance for the landowners to pick up the pens, make notes for us to take away and think more about, where would you like to see the parks – do you want something special from the open space, what vegetation do you want to see retained, what activities do you think should occur in each area etc.