



# MALENY COMMUNITY PRECINCT BACKGROUND REPORT



**“STARTING WITH A CLEAN SLATE”**

March 2007

DRAFT

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# SECTION 1: BACKGROUND

## 1 Introduction

### *1.1 Preamble*

It should be noted that in the context of this background report, the word "development" is used in its broadest context, encompassing the use of a site for a range of uses such as: industrial, commercial, residential, open space, sport & recreation, community purpose, revegetation etc. It is not intended to suggest only residential development.

### *1.2 Purpose*

The purpose of the project is to develop a Structure Plan, an integrated plan setting out the broad environmental, landuse, infrastructure and development intent to guide detailed site planning for the Maleny Community Precinct site.

### *1.3 Scope*

The project is to encompass the property known as the Maleny Community Precinct (Lot 2 on SP163952), comprised of what used to be known as the Porter and CalAqua (Armstrong Farm) Properties.

The project is to recognise the LGMS's intent for the site to consider its potential to support the future social, economic, environmental and infrastructure needs of the Maleny Township and surrounds.

The Structure Plan is to be prepared in accordance with the SEQ Regional Plan Implementation Guideline No 4 – Structure Plans (Oct 2006).

The Structure Plan may result in amendments to the SEQ Regional Plan and the Caloundra City Plan.

### *1.4 Study Area*

The site is located to the east of the Maleny Town Centre within the Maleny Plateau Planning Area.

The site (122.424ha) is immediately adjacent to the Maleny Township Planning Area, an area of around 325 hectares. The Maleny Township is the district level business centre for the wider hinterland area, and includes a variety of community facilities, and consists predominantly of detached dwellings. The area is supported by a small industrial precinct, which would like to expand, and is a popular tourist destination.

The majority of the Maleny Area has been cleared of remnant vegetation (mostly rainforest) to accommodate pastoral and agricultural activities. Vegetation which remains is generally limited to small isolated pockets or to drainage lines and creek sides.

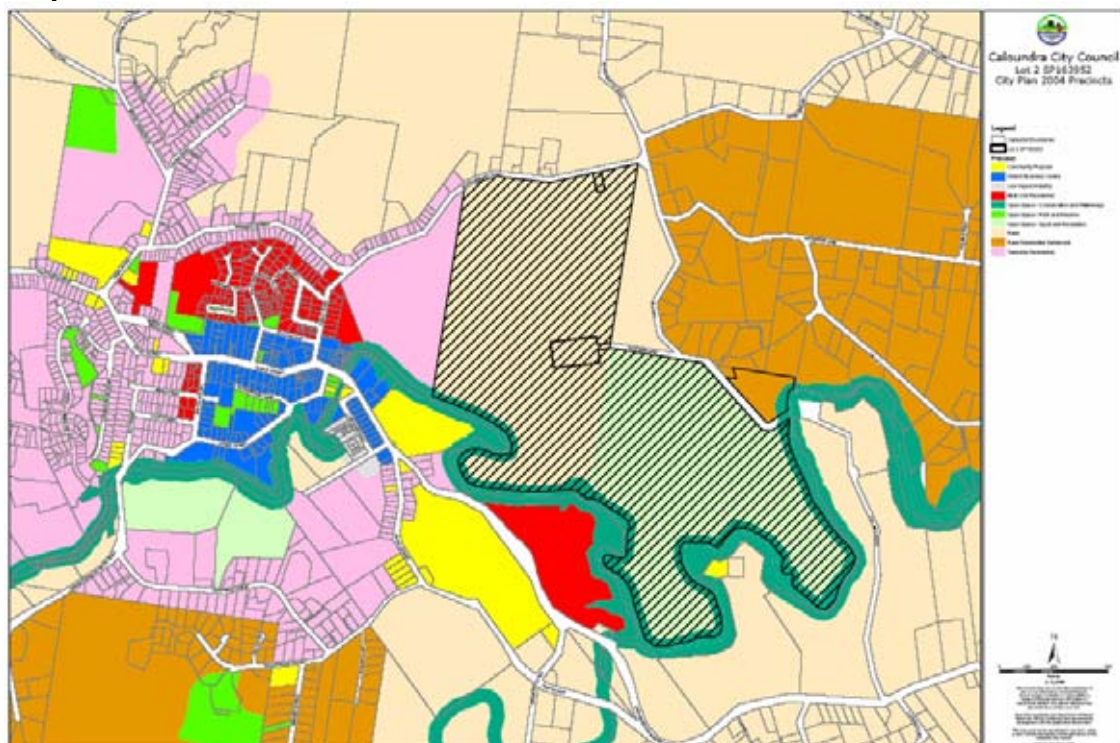
Grazing, dairying and other forms of agriculture are predominant land uses within the Planning Area. Other significant land uses include rural living and rural holiday accommodation. There has been a significant increase in visitors and residents over the years and this trend is expected to continue.

There have been substantial increases in through and local traffic, with potential adverse impacts on local traffic operations, amenity and economic development.

### **1.5 Site Details**

The Maleny Community Precinct site (predominantly Lot 2 on SP163952) covers an area of 122.424 hectares and is comprised of what used to be known as the Porter Property and the CalAqua Property (Armstrong's Farm). (Refer to **Map 1**)

**Map 1**



The site is predominantly owned by Caloundra City Council, although there are two additional lots included in this Major Development Area which are owned by other parties (ie: the lots included in the hatched area above).

## **1.6 Background**

The Department of Natural Resources and Water have advised that the traditional owners of the area are the Jinibara. Representatives of the Jinibara will be consulted as part of this Structure Planning process.

Since the early 1900's, the site has been used for dairy farming. In 1916, "Wongabel", the north-western part of the property was purchased by the Porter family, who retained the land until Council purchased it in 2006. In 1995, Council and Cal Aqua compulsory acquired Armstrong's Farm, to receive treated sewerage effluent from the nearby Sewerage Treatment Plant (STP).

The funding for the purchase of this property was split between Caloundra City Council (CalAqua), Aquagen and a National Landcare Grant in the amounts of \$190,000, \$400,000 and \$200,000 respectively. The terms of agreement between Caloundra City Council and Aquagen for the funding were:

- ▶ the \$400,000 from Aquagen did not imply future funding for the effluent irrigation project;
- ▶ in the event of the property being sold by Caloundra City Council, Aquagen is to receive a refund proportionate to its contributions towards original costs; and
- ▶ Caloundra City Council is to inform the board about adoption and implementation of the effluent irrigation project.

Under the Land Act 1994 (Qld), the compulsory acquisition of the site for the disposal of treated effluent essentially tied up the use of the land for other purposes for a period of 7 years.

In January 2001, Council received a request from Maleny Golf Club Inc, for permission to develop the land for a golf course and to assist in improving the quality of the water being discharged into the Obi Obi Creek. At this same time, Council was also considering various uses for the land which would be compatible with its "sewerage purposes" acquisition of the land. eg: tea tree farm. Barung Landcare also indicated their preferred land use strategy for the site which involved farm forestry.

A preliminary assessment indicated the Armstrong's Farm could not accommodate an 18 hole golf course comfortably, and Council officers approached Mr Stephen Porter about the possibility of acquiring the land adjoining the Armstrong property. It was considered this acquisition would enable the golf course to be built over the two parcels of land and some residential development could be undertaken to assist in funding the land

purchase and construction of the course and community facilities. Council at this time had not endorsed this option.

Subsequently, Council resolved to proceed with the development of a Master Plan for the golf course and residential subdivision proposal.

Tract Consultants and Ernst and Young were respectively engaged to undertake community consultation and a financial viability study of the golf course & residential proposal. On receipt of the final reports from the consultants in July 2003, Council resolved to establish a taskforce to assist in the development of a master plan for the site and to appoint an internal auditor to conduct a Probity Audit.

A Community Taskforce was formed in August 2003, through an audited process, to assist in the development of a Master Plan for the site. This Master Plan was presented to Council and the community in February 2004.

During the period the Probity Audit was undertaken, no Council planning for the site could be undertaken.

In 2004, the Criminal Misconduct Commission found no misconduct in relation to Council's property dealing and took no further action.

Council resolved to purchase the Porter Farm in 2004 and the purchase was finalised in 2006. The terms of the purchase agreement include:

- ▶ an initial payment to the previous owner of \$1.6M.
- ▶ a further payment to the previous owner of a sum equal to \$1M (increased according to CPI) on the earlier of:
  - a. 30 July 2009; or
  - b. a date agreed in writing by parties; or
  - c. completion of an 18 hole community golf course on the land.
- ▶ an obligation for Council to procure the subdivision of the land and to transfer two lots (800-1500sqm) to the previous owner (damages may be sought if this is not done), by 30 July 2008.
- ▶ Lot 1 on SP163952 is to have access via a sealed public road constructed in accordance with relevant Australian Standard with concrete kerbing and channelling and appropriate stormwater drainage no later than 30 July 2009.

These two properties, Armstrong and Porter's Farms have been amalgamated into Lot 2 on SP 163952.

All further planning for the Maleny Community Precinct was put on hold pending the outcomes of the Probity Audit, and has been recommenced as part of the Local Growth Management Strategy.

### **1.7 Key Starting Points**

The following have been identified as the Key Starting Points for the Maleny Community Precinct Structure Planning process:

- ▶ We are starting with a 'clean slate' – no decisions have been made about the future use of the site;
- ▶ Maleny Community Precinct is located within the South East Regional Plan 'Urban Footprint';
- ▶ Maleny Community Precinct is mostly Council owned;
- ▶ Future land use options need to be financially sustainable;
- ▶ Future land use options need to be socially, economically and environmentally 'courageous'; and
- ▶ Council is committed to openness and inclusiveness for the Maleny Community Precinct community consultation.

### **1.8 Demographics**

The population of the Maleny Township and Maleny Plateau Precincts as of 2001, were 1460 and 3771 respectively. It is anticipated that these areas will grow to 2600 and 4500 respectively by 2016. The Maleny township covers an area of approx 325 ha, whilst the Maleny Plateau covers an area of approx 11,031 hectares.

The age structure of Maleny as at 2001 is indicated in the table below.

#### **Population by Age– 2001**

| <b>Age Group</b> | <b>MALENY</b> |              | <b>CALOUNDRA CITY</b> |              | <b>QUEENSLAND</b> |              |
|------------------|---------------|--------------|-----------------------|--------------|-------------------|--------------|
|                  | <b>Total</b>  | <b>%</b>     | <b>Total</b>          | <b>%</b>     | <b>Total</b>      | <b>%</b>     |
| 0-14yrs          | 321           | 23.0         | 14,744                | 20.2         | 15,168            | 19.9         |
| 15-24yrs         | 161           | 11           | 7,901                 | 10.8         | 8,316             | 10.9         |
| 25-44yrs         | 332           | 22.7         | 18,203                | 25.0         | 19,264            | 25.3         |
| 45-64yrs         | 365           | 25           | 18,702                | 25.6         | 19,566            | 25.7         |
| 65+yrs           | 281           | 19.3         | 13,396                | 18.4         | 13,893            | 18.2         |
| <b>TOTAL</b>     | <b>1460</b>   | <b>100.0</b> | <b>72946</b>          | <b>100.0</b> | <b>76,207</b>     | <b>100.0</b> |

[Social Demographic Profiles for Planning Areas, ABS April 2003]



Maleny has been found to have:

- ▶ a higher proportion of its population under 14 years than within Caloundra City or Queensland;
- ▶ a lower proportion of its population in the 15-24 year age group than within Caloundra City or Queensland; and
- ▶ a higher proportion of its population in the 65 year+ age bracket than Caloundra City and the State.

These statistics need to be considered when looking at the type of land uses and community facilities for the site.

### **1.9 Surrounding Land Uses**

The Maleny Community Precinct (Refer to **Map 2**) is located to the east of the Maleny township.

The site abutting the western boundary of the site is located within the Township Residential Precinct. The minimum lot sizes for this area are 1200m<sup>2</sup>. A development, "Cloudwalk", has been approved (under the Superseded Planning Scheme) on the land, Lot 3 on W39648, for 90 residential lots. A condition of development is for a pedestrian connection to be established across Obi Obi Creek to the Council owned land (Lot 22 SP185360) behind Woolworths. (the exact location is still to be confirmed). Stage 2 and 3 of the development have not yet commenced, as such there may be an opportunity to integrate this development with any proposals that may result from the Structure Planning process. A road nub and 2 detention basins, along with residential allotments abut the western boundary of the Maleny Community Precinct site. The applicant has prepared a stormwater management plan, geotechnical investigation and water supply and sewerage planning report which may be of relevance in the Structure Planning process.

The northern boundary of the site is adjacent to North Maleny Road, across from which is extensive rural land.

The Porter Sister property (Lot 1 on RP26369) is adjacent to the northern half of the eastern boundary of the study area site, down to Porters Lane. This land, whilst outside the "Urban Footprint", is designated as rural under the Caloundra City Plan, and as such, could still be used for a variety of uses consistent with the uses determined for the Maleny Community Precinct site. This site also contains Porter's Wood, a remnant rainforest area with cultural heritage significance.

Obi Lane (and gazetted road reserve) runs along the southern half of the eastern boundary of the site, across from which is a significant area of rural residential land known as North Maleny. The minimum lot sizes for this area are 5000m<sup>2</sup> with a minimum average lot size of 1 hectare.

The southern boundary of the site is bordered by Obi Obi Creek, across from which are further rural lands, a retirement village (Erowal) and land for community purposes, including the Maleny Hotel, Maleny Bowls Club, Maleny Primary and Pre Schools, Woolworths and Maleny Sewerage Treatment Plant.

## **2 Structure Planning Process to Determine Preferred Option**

The Structure Planning Process will be undertaken in accordance with the State Government's Implementation Guide No 4 – Structure Plans, and will involve the following steps:

1. Data collection and constraints and opportunities analysis, site investigations, and consultation.\*
2. Development and Evaluation of Options for the future use of Maleny Community Precinct. \*
3. Selection of Preferred Option for the Maleny Community Precinct.
4. Notice of Intent to prepare Structure Plan for Maleny Community Precinct.
5. Formal preparation of proposed Structure Plan for the Maleny Community Precinct.
6. First State Interest Review (30 business days).
7. Amendments to proposed Structure Plan for the Maleny Community Precinct.
8. Public notification of proposed Structure Plan & PS Amendment (30 business days).\*
9. Consideration of Submissions.
10. Second State Interest Review and Approval.
11. Finalisation of Structure Plan & PS Amendment.

(\*Community consultation undertaken)

Applications for the development of other uses lodged after the finalisation of the Structure Plan will need to take into account the desired outcomes identified in the Structure Plan.

Step 1 of the above Structure Planning process involves an analysis of the site including investigations on environmental, natural resource and hazard constraints for the structure plan area. This work has been commenced.

The Structure Plan will outline the intent and principles for the area and the landuse allocations, for uses which may include environmental, residential,

community, economic, open space. It will also identify the infrastructure required to support the future land use options.

It should be noted that the formal Structure Planning for the Maleny Community Precinct site cannot commence until the Caloundra City Local Growth Management Strategy has been signed off by both Council and the State government, which is anticipated to be around July 2007. The work undertaken prior to the commencement of the formal Structure Planning process is preliminary work to develop detailed future use options for the site which the Structure Planning process can then build on.

## **3 Relationship to Other Planning Documents**

### **3.1 SEQ Regional Plan**

The site is located within the “Urban Footprint” of the South East Queensland Regional Plan. The SEQ Regional Plan stipulates that Local Governments are to prepare Local Growth Management Strategies (LGMS) and that sites in excess of 100 hectares require the development of a Structure Plan.

SEQ Regional Plan matters to be addressed in the structure plan include:

- ▶ Sustainability;
- ▶ Natural Environment;
- ▶ Regional Landscape, natural resources and rural futures;
- ▶ Strong Communities;
- ▶ Urban Development;
- ▶ Economic Development;
- ▶ Infrastructure;
- ▶ Integrated Transport;
- ▶ Water Management; and
- ▶ Sequencing of Development.

More detail is provided in the SEQ Regional Plan Implementation Guideline No. 4 – Structure Plans, Oct 2006.

### **3.2 Caloundra LGMS**

The LGMS demonstrates how Caloundra City proposes to achieve the dwelling targets and other key urban development policies set out in the Regional Plan, based on investigations at the local and sub-regional level. The planning period for the LGMS is 2026, however the LGMS provides strategic directions for the period to 2046 and beyond.

The draft Caloundra City Local Growth Management Strategy recognises the Maleny Community Precinct as a major development area (ie: over 100 hectares in size) and requires the development of a Structure Plan in order to implement the vision and the strategies of the LGMS.

The LGMS indicates that the intent for the Maleny Community Precinct Site is to investigate the site’s potential to support the future social, economic, environmental and infrastructure needs of the Maleny Township.

The LGMS matters to be addressed in the structure plan, where relevant, include:

- ▶ residential development and housing;
- ▶ employment and economic development;

- ▶ integrated transport;
- ▶ infrastructure;
- ▶ open space;
- ▶ character and identity;
- ▶ community wellbeing; and
- ▶ sequencing.

Future options for the site will be guided by the Vision and Strategic Directions of the Draft Local Growth Management Strategy.

### **SEQ Regional Plan Implementation Guide No. 4 - Structure Plan Guidelines**

A Structure Plan is intended to form a bridge between the high level urban development policies, targets and spatial directions provided in the SEQ Regional Plan & Local Growth Management Strategy and the detailed planning scheme and other non-scheme measures required to implement those aspects of the SEQ Regional Plan and LGMS at the local level.

A Structure Plan is an integrated land use and infrastructure plan that establishes the broad layout for the development of an area and will guide detailed site planning for a particular Major Development Area such as Maleny Community Precinct. The structure planning process is intended to produce both a framework stating how an area will be developed, and the actions needed to realise that framework.

The desired regional outcomes, principles and policies of the SEQ Regional Plan and the vision and strategies of the draft Caloundra City Local Growth Management Strategy will form the basis for what a structure plan should address and the outcomes sought to be achieved.

The SEQ Regional Plan Implementation Guide No. 4 - Structure Plan Guidelines:

- ▶ define a structure plan under the SEQ Regional Plan;
- ▶ set out the statutory effect of a structure plan;
- ▶ set out the planning context;
- ▶ identify the linkages between a structure plan and infrastructure planning;
- ▶ provide guidance on the matters to be addressed by a structure plan;
- ▶ set out the form and key elements of a structure plan; and
- ▶ set out the process for preparing a structure plan.

### **3.3 Caloundra City Corporate Plan 2006-2011**

The Corporate Plan guides the strategic direction, operations and resource allocation of Council over the next five years and beyond. The development of the Structure Plan will require consideration of many of the Corporate Plan themes, including:

- ▶ Business and Employment;
- ▶ Rural Industry;
- ▶ Centres;
- ▶ Physical Infrastructure;
- ▶ Land;
- ▶ Biodiversity;
- ▶ Waterways;
- ▶ Atmosphere;
- ▶ Waste;
- ▶ Community Development;
- ▶ Recreation and Culture;
- ▶ Heritage;
- ▶ Community Health and Safety;
- ▶ Built Environment; and
- ▶ Leadership and Innovation.

The potential to achieve significant economic, environmental and social outcomes on the Maleny site is to be investigated as part of the Structure Planning process.

### **3.4 Caloundra City Plan 2004**

The Caloundra City Plan 2004 is Council's current planning scheme. It guides and manages the City's growth and development. Development (if proposed) on the Maleny Community Precinct site is subject to the provisions of the Caloundra City Plan. The section below outlines the current provisions applying to the site (in the absence of amendments to the Plan which may result from the Structure Planning process).

The Caloundra City Plan includes a note as follows:

*Investigations are currently underway into the suitability of developing Lot 2 RP157646 (Armstrong's Farm) and adjoining Rural lots to the north and west as an integrated golf course, residential and community development. Should detailed site analysis and community consultation confirm the merit of the proposal and the suitability of the site, this Planning Scheme may be subject to amendment to provide for the development.*

## **Land Use Precincts**

Approximately 62.3 hectares of the site is included within the Rural Precinct, with the intent of preserving the rural character of the area by ensuring structures do not intrude on the landscape and reflect the existing rural surrounds.

Approximately 64.6 hectares is included within the Open Space – Sport and Recreation Precinct, with the intent that development meets the needs of sporting and recreational uses and is of a scale, appearance and intensity compatible with adjacent precincts. (Refer to **Map 3**)

## **Planning Area Code – Maleny Plateau**

The Maleny Community Precinct is in the Maleny Plateau Planning Area. Particular outcomes which are relevant to the development of the Maleny Community Precinct include:

Overall Outcome (c) states that development in the Rural Precinct provides for productive and sustainable rural activities that are supported by complementary activities such as home based business, bed and breakfast, rural holiday accommodation and rural service industry.

Overall Outcome (f) states that environmental values within the Planning Area are retained and enhanced with significant vegetation on hillsides and adjacent to Obi Obi Creek and tributaries.

Overall Outcome (h) states that development in the Planning Area implements best practice environmental management to achieve a high standard of water quality entering Lake Baroon.

Overall Outcome (k) of the Planning Area Code states that development in the Planning Area does not adversely affect the continued operation and viability of infrastructure.

## **Planning Area Specific Outcomes:**

The Maleny Plateau Planning Area Code contains a number of specific outcomes and solutions relating to building height, minimum lot size, infrastructure, cultural heritage and character, flood management, habitat and biodiversity, rainwater collection, reconfiguring a lot, and specific provisions for development in certain precincts. The applicability of the provisions varies depending on the type of development proposed. Provisions which are relevant to the Maleny Community Precinct include (amongst others):

- ▶ Height limit of 11 metres in the Rural Precinct, or 8.5 metres in all other precincts (S1.1);



- ▶ Minimum lot size of 40 hectares in the Rural Precinct; and
- ▶ Development in the Rural Precinct retains and enhances the inherent rural character of the Planning Area ie: rolling green hills, the absence of buildings and other structures intruding into the landscape, and the backdrop offered by remnant vegetation (O11).

### **Applicable Overlays**

Overlays identify areas of constrained land (eg. flood, steep slope, habitat and biodiversity). They trigger the application of Codes containing specific provisions and controls for the development of such land. The overlays applying to the Maleny Community Precinct site are identified below, (Refer to **Map 4**), along with broad requirements under the applicable overlay codes. Specific requirements will depend on the ultimate use proposed for the site.

It is important to note that the Caloundra City Plan recognises that constraints such as flooding and values such as habitat and biodiversity and cultural heritage may exist in areas not covered by the overlay mapping. These situations are addressed through Specific Outcomes contained in the various Planning Area Codes.

### **Habitat and Biodiversity**

A large portion of remnant vegetation along the Obi Obi Creek has been identified as an “endangered” regional ecosystem. An “of concern” regional ecosystem, (Palustrine wetland), is located along one of the tributary gullies to Obi Obi Creek. A small area to the east of the property (on the Porter Sister’s property – Porter’s Wood) contains an area of “high priority” locally significant vegetation (Olsen 2001). Under the Habitat and Biodiversity Code, development on the site will need to achieve the following:

- ▶ Retain and protect significant vegetation;
- ▶ Appropriately design roads through or adjacent to the habitat (eg. traffic calming);
- ▶ Avoid fragmentation of significant vegetation or corridors and avoid the creation of barriers to faunal movement (eg. design fences to allow for faunal movement, control of dogs and cats);
- ▶ Provide for rehabilitation and restoration where appropriate with an aim to link areas of vegetation/habitat;
- ▶ Incorporate buffers to significant vegetation/habitat;
- ▶ Put in place a vegetation management plan; and
- ▶ Utilise local, native plants in landscaping, and replicate adjacent healthy remnant habitats.

## **Visual Management (Scenic Routes)**

The northern boundary of the site (North Maleny Road) is subject to the Visual Management (Scenic Routes) Overlay, measured as a width of 100m each side of the road reserve. Under the Visual Management Code, development adjoining a scenic route needs to be of a scale and architectural style which complements the landscape values of the area in accordance with Table 7.4 (Landscape Values). Development must also:

- ▶ Protect significant views identified in the Code;
- ▶ Protect the landscape/scenic character of Maleny.

## **Steep Slope/Stability**

Scattered areas, particularly in the northern areas of the property are subject to the steep slope/stability overlay. Development in these areas needs to achieve the following:

- ▶ Avoid built structures on potentially unstable land;
- ▶ Provide safe and efficient pedestrian and vehicle access; and
- ▶ Be designed and sited so as to minimise impact on natural landform and landscape character.

## **Natural Waterways and Wetlands**

The southern boundary of the property (Obi Obi Creek) is subject to the Natural Waterways and Wetlands Overlay. Any development will need to:

- ▶ Avoid built structures, filling and excavation, public use infrastructure (eg. utilities, roads, toilet blocks etc) and new lot boundaries on land along Obi Obi Creek which is subject to the overlay;
- ▶ Have regard to potential impacts on Obi Obi Creek;
- ▶ Demonstrate how it is proposed to maintain and enhance the water quality within Obi Obi Creek (including incorporating water sensitive urban design).
- ▶ Be designed to ensure the proposal does not result in any additional upstream or downstream flooding;
- ▶ Provide adequate setbacks and natural buffers to protect the environmental values of the Obi Obi Creek (100 metres from the high or outer bank where the waterway supports significant vegetation, or 40 metres otherwise);
- ▶ Maintain natural drainage systems; and
- ▶ Protect banks, channels and in-stream habitat by not interfering with or modifying the waterway.

## **Bushfire Hazard Management**

The north eastern portion of the site and some small areas on the southern boundary are subject to the Bushfire Hazard Management Overlay.

Development on the site will need to:

- ▶ Limit the intensity of use in bushfire prone areas;
- ▶ Ensure buildings are appropriately designed and sited so as to minimise bushfire risk (eg. in existing cleared areas, away from tops of ridgelines, and in locations other than on north to west facing slopes);
- ▶ Incorporate safe and efficient movement systems with alternative safe access routes (eg. avoid the use of cul-de-sacs and dead end roads);
- ▶ Incorporate fire breaks where necessary;
- ▶ Provide sufficient water supply for fire fighting purposes; and
- ▶ Utilise fire retardant species in landscaping in risk areas.

## **Flood Management**

Areas of the southern boundary towards the western boundary and small areas in the south west, and east of the property are subject to the Flood Management Overlay. Any development on the site will need to:

- ▶ Avoid building or filling and excavation in flood prone areas;
- ▶ Ensure building sites are flood free;
- ▶ Ensure access routes are safely trafficable in a 1 in 100 year flood event;
- ▶ Provide floor levels with an acceptable level of flood immunity; and
- ▶ Ensure any public infrastructure is appropriately located.

## **Water Resources Catchment**

The subject site is contained within the Lake Baroon Pocket Dam Catchment and is subject to the Water Resources Catchment Code which seeks to ensure that water quality and natural systems within water resource catchments are protected and enhanced. Development on the site will need to:

- ▶ Avoid high risk activities such as animal husbandry – high impact, camping ground and industrial uses;
- ▶ Provide buffers to Obi Obi Creek to filter run-off;
- ▶ Retain and enhance the natural values of Obi Obi Creek including protection of significant vegetation and revegetation;
- ▶ Ensure on-site wastes are treated to a standard that ensures no adverse impact on surface or groundwater;
- ▶ Avoid creating a weed or a pest problem;
- ▶ Avoid adverse impact on aquatic habitat; and

- ▶ Maintain water quality and hydrological systems.

### **Cultural Heritage**

'Porters Wood' located on Lot 1 RP 26369 Obi Lane directly to the east of the site is identified under the Cultural Heritage and Character Areas Overlay and Code as having non-indigenous cultural heritage values. Porters Wood is significant as a rare example of the vegetation which formerly covered the Blackall Range. Under the Code, sites adjoining places of non-indigenous cultural significance need to achieve the following:

- ▶ Buildings and structures are of a scale, design, finish and colour which respects the heritage place;
- ▶ Development is visually subservient to the heritage place;
- ▶ Fencing, landscaping and advertising do not detract from the heritage place; and
- ▶ Development is designed and sited so as not to impair or obscure views of the heritage place.

In addition, development must not impair the culturally significant attributes of a heritage place of indigenous cultural heritage significance.

It is recognised that there may be other features of cultural heritage significance, particularly indigenous, located on or adjacent to the site which are not currently identified in the Caloundra City Plan, for example, 'Fairview' (Armstrong/Pattemore House) and Obi Fence line. Identification and further investigation of these features is required.

### **Development Assessment Tables:**

Consistent uses within the Rural Precinct include:

- Caretakers Residence
- Bed and Breakfast
- Home based Business
- Detached house
- Agriculture
- Animal Husbandry (low impact)
- Native Forest Harvesting
- Park
- Local Utility
- Rural Produce Stall
- Stable
- Emergency Service

Consistent uses with the Open Space – Sport and Recreation Precinct include:

- Caretakers Residence
- Indoor Sport, Recreation, Entertainment
- Outdoor Sport, Recreation, Entertainment
- Park
- Local Utility

Depending on the types of use/uses eventually proposed for the site, a number of other Caloundra City Plan provisions such as Use Codes and other related codes will apply to development on the site.

### **Priority Infrastructure Plan:**

Caloundra City's Priority Infrastructure Plan (PIP) is currently in draft form. It is expected that the final version will be incorporated into the Caloundra City Plan by July/August 2007.

The proposed open space, community facilities and bikeway provisions will be considered during the Structure Planning process for the Maleny Community Precinct.

### ***3.5 Maleny Local Area Plan and Maleny and Environs Action Plan***

This document produced in May 2000 has been superseded by the Caloundra City Plan, however, there are a number of actions which are relevant to the Maleny Community Precinct site. These actions include:

- ▶ the upgrade of the Gardners Lane/Obi Obi Lane intersection;
- ▶ the upgrade of the North Maleny Road/Obi Obi Lane intersection;
- ▶ construction of a bridge over Obi Obi Creek in the longer term;
- ▶ the identification of a potential industrial area to the west of Obi Obi Lane and south of Obi Obi Creek, adjacent to the sewerage treatment plant for service and light industry and the development criteria;
- ▶ pedestrian and cycle connection from Maleny town area to Gardners Falls Reserve;
- ▶ protection and revegetation of environmental areas along Obi Obi Creek and other major drainage lines;
- ▶ revegetation of landslip areas as part of any development application;
- ▶ establishment of ecological linkages for fauna movement along Obi Obi Creek.
- ▶ encouraging the retention of views along the scenic routes by encouraging low level planting and low fences that do not impact on views.

The Local Area Plan also identifies North Maleny Road as an important equestrian link.

### ***3.6 Planning and Environmental Legislation***

There is a wide range of planning and environmental legislation potentially applying to development on the Maleny Community Precinct site. Some of

the more significant State and Commonwealth legislation is discussed briefly below.

### **Integrated Planning Act (Qld) 1997**

The Integrated Planning Act (IPA) is Queensland's principle planning legislation, setting out a framework for the creation of IPA Planning Schemes and establishing the Integrated Development Assessment System (IDAS) for development assessment. The purpose of the IPA is to seek to achieve ecological sustainability through coordinating and integrating planning at the local, regional and State level and by managing the process and effects of development. Caloundra City Council's Planning Scheme the Caloundra City Plan 2004 was prepared under the IPA.

The Act is administered by the Queensland Department of Local Government, Planning, Sport and Recreation.

Relevance to Maleny Community Precinct site:

- ▶ Development on the site will need to comply with the IPA and the Caloundra City Plan 2004; and
- ▶ Development assessment and approval will be required depending on the type of use/s proposed for the site.

### **Environmental Protection Act (Qld) 1994**

The Environmental Protection Act aims to protect Queensland's environment while allowing for ecologically sustainable development. The Act establishes a general environmental duty and a duty to notify of environmental harm. The Act provides a range of tools, including:

- ▶ Environmental Protection Policies for Air, Water, Waste and Noise;
- ▶ Licensing system for 'Environmentally Relevant Activities' (ERA's);
- ▶ Environmental auditing;
- ▶ Environmental Management programs;
- ▶ Environmental Protection Orders; and
- ▶ Contaminated land management system.

The Act is administered by the Queensland Environmental Protection Agency.

Relevance to Maleny Community Precinct site:

- ▶ General environmental duty; and
- ▶ Maleny Sewerage Treatment Plant (STP) is a licensed ERA.

## **Environment Protection and Biodiversity Conservation Act (Cth) 1999**

This Act establishes processes to list and protect nationally threatened species and ecosystems. Actions which are likely to have a significant impact on matters of national significance (termed a 'controlled action') require assessment under the Act. Matters of National Significance include declared Ramsar wetlands, listed threatened species and ecological communities, and listed migratory species. The Act is administered by the Federal Department of Environment and Heritage.

Relevance to Maleny Community Precinct site:

- ▶ Obi Obi Creek is a habitat for the Mary River Cod which is a listed endangered species under the EPBC Act (note there may be others); and
- ▶ Approval under the Act will be required if development on the site is deemed to be a 'controlled action'.

## **Vegetation Management Act (Qld) 1999**

The purpose of the Vegetation Management Act (Qld) 1999 is to regulate the clearing of vegetation in a way that conserves remnant regional ecosystems, ensures that clearing does not cause land degradation, prevents loss of biodiversity and maintains ecological processes. The Act aims to achieve its objectives through the provision of applicable codes for the assessment of vegetation clearing under IDAS.

The Act is administered by the Queensland Department of Natural Resources and Water.

Relevance to Maleny Community Precinct site:

- ▶ The site and adjacent properties, contain a number of remnant regional ecosystems;
- ▶ Permits will be required if the remnant regional ecosystems are to be cleared; and
- ▶ Assessment against the relevant IDAS codes may be required where material change of use and reconfiguration of a lot is proposed.

## **Nature Conservation Act (Qld) 1992**

The object of this Act is to conserve nature through the:

- ▶ Dedication, declaration and management of protected areas;
- ▶ Protection of native wildlife and its habitat; and

- ▶ Ecologically sustainable use of wildlife and areas through the preparation and implementation of management and conservation plans.

Whilst plants and animals are protected, there are no provisions for the conservation of threatened ecosystems. The Act is administered by the Queensland Environmental Protection Agency.

Relevance to Maleny Community Precinct site:

- ▶ Depends if there are any listed threatened species (plants or animals) on the site – unknown at this stage.

### **Water Resource (Mary Basin) Plan 2006**

Prepared and listed under the Water Act (Qld) 2000, the purposes of this plan are:

- ▶ to define the availability of water in the plan area;
- ▶ to provide a framework for sustainably managing water and the taking of water;
- ▶ to identify priorities and mechanisms for dealing with future water requirements;
- ▶ to provide a framework for reversing, where practicable, degradation that has occurred in natural ecosystems; and
- ▶ to provide a framework for establishing water allocations for surface water.

The Act is administered by the Queensland Department of Natural Resources and Water.

Relevance to Maleny Community Precinct site:

- ▶ The plan provides for an annual volumetric limit of up to 210ML/year from Obi Obi Creek for Maleny Water Supply purposes (subject to the process for granting). Current entitlements are 125.5ML/yr.
- ▶ The Mary Basin Water Resource Plan precludes further increased extraction for town supply (either directly from the Obi Obi or by building off stream storage dams).
- ▶ The taking of water for stock and domestic uses by individual landowners who abut Obi Obi Creek is not restricted by the plan.



### **Aboriginal Cultural Heritage Act (Qld) 2003**

The purpose of this Act is the recognition, protection and conservation of Aboriginal cultural heritage. Aboriginal cultural heritage includes significant areas, objects and evidence (of archaeological or historic significance) of Aboriginal occupation of an area. Aboriginal cultural heritage areas do not have to contain any physical markings.

The Act establishes a cultural heritage duty of care which requires all persons to take all reasonable and practical measures to ensure an activity does not harm Aboriginal cultural heritage. Guidelines are available which set out measures for meeting the duty of care established by the Act. The Act is administered by the Queensland Department of Natural Resources and Water.

Relevance to Maleny Community Precinct site:

- ▶ Duty of care applies to Council and all potential future developers of the site;
- ▶ A survey by an appropriate person should be undertaken to identify any aboriginal cultural heritage on the site; and
- ▶ Consultation with traditional owners is required.

### **Queensland Heritage Act (Qld) 1992**

This Act provides for the conservation of Queensland's historical cultural heritage. The Act establishes the Queensland Heritage Council which, amongst other things, provides advice on heritage matters, administers the Heritage Register and assists in the proper management and conservation of heritage places and objects.

The Act contains provisions relating to criteria and procedures for entry onto the Heritage Register, removal, assessment, objections and appeals, development in heritage registered places, heritage agreements, exemptions and enforcement.

The Act is administered by the Queensland Environmental Protection Agency.

Relevance to Maleny Community Precinct site:

- ▶ Fairview (Armstrong's House) is a listed heritage place under the Act and should be retained and protected; and
- ▶ Broadly, development on the site will need to respect the heritage values of the house.

### **3.7 Other Relevant State Policies**

#### ***State Planning Policy 1/03 – Mitigating the adverse impacts of Flood, Bushfire & Landslide***

This State Planning Policy aims to minimise the potential adverse impacts of flood, bushfire and landslide on people, property, economic activity and the environment.

The Policy is relevant in natural hazard management areas where a development will involve an increase in the number of people living or working in the area, where the development involves the physical alteration to a watercourse or floodway including vegetation clearing, or net filling exceeding 50 cubic metres, or building on unstable slopes which involves earthworks exceeding 50 cubic metres, vegetation clearing or redirection of the existing flow of surface or groundwater.

#### ***Environmental Protection (Water) Policy 1997***

The Environmental Protection (Water) Amendment Policy (No. 1) 2006 - Subordinate Legislation 2006 No. 30 (EP Water Amendment Policy) commenced on the 1st of May 2006.

The EP Amendment Policy establishes environmental values and water quality objectives for riverine (freshwater), estuarine and coastal waters in the following areas:

- ▶ Moreton Bay/south-east Queensland;
- ▶ Mary River Basin/Great Sandy Region; and
- ▶ Douglas Shire waters.

Environmental values and specific water quality objectives have been established for the Mary River catchment which includes Obi Obi Creek.

#### ***State Planning Policy - GOAL***

The site is identified in the Caloundra City Plan as being Good Quality Agricultural Land (GOAL) in the Desired Environmental Outcome mapping. DEO No. 1 (Economic Development) seeks to ensure GOAL remains available for productive use, contributes to the City's scenic amenity and is protected from incompatible development. As such, any project on this site will need to demonstrate an overriding planning and community need for the project to justify the utilisation of an area of good quality agricultural land in accordance with the provisions of the State Planning Policy 1/92 – Development and Conservation of Agricultural Land.

Under the Guidelines for the State Planning Policy for Good Quality Agricultural Land, four classes of agricultural land have been defined for

Queensland (Refer Table 1). Class A land in all areas is considered to be good quality agricultural land. In some areas, Class B land (where agricultural land is scarce) and better quality Class C land (where pastoral industries predominate), are also considered to be good quality agricultural land.

**TABLE 1. AGRICULTURAL LAND CLASSES**

| CLASS   | DESCRIPTION   |
|---------|---|
| Class A | <b>Crop land</b> - Land that is suitable for current and potential crops with limitations to production which range from none to moderate levels.   |
| Class B | <b>Limited crop land</b> - Land that is marginal for current and potential crops due to severe limitations; and suitable for pastures. Engineering and/or agronomic improvements may be required before the land is considered suitable for cropping.   |
| Class C | <b>Pasture land</b> - Land that is suitable only for improved or native pastures due to limitations which preclude continuous cultivation for crop production; but some areas may tolerate a short period of ground disturbance for pasture establishment.  |
| Class D | <b>Non-agricultural land</b> - Land not suitable for agricultural uses due to extreme limitations. This may be undisturbed land with significant habitat, conservation and/or catchment values or land that may be unsuitable because of very steep slopes, shallow soils, rock outcrop or poor drainage. |

As indicated on **Map 5**, the Maleny Community Precinct site is comprised of land identified as Class C1 and A.

However, this site is located within the SEQ Regional Plan "Urban Footprint", and therefore identified as being potentially suitable for future urban development. Whilst the SEQ Regional Plan states that the inclusion of land in the urban footprint does not imply that all such lands can be developed for urban purposes, the types of uses which are considered to make the land unsuitable for development include: flooding, land slope, scenic amenity and protection of biodiversity values, not Good Quality Agricultural Land.

Further advice from the Office of Urban Management confirms that the SEQ Regional Plan takes precedence over all other planning instruments, including State Planning Policies.

### **3.8 Council Policies & Strategies**

#### **Biodiversity Strategy 2006**

Biodiversity refers to the variety of all life forms – the different plants, animals, fungi, seaweed and all micro-organisms, the genes they contain and the ecosystems they form. Biodiversity is arguably the single most important resource on earth. Land clearing, habitat fragmentation and climate change are key threats to biodiversity. The Biodiversity Strategy provides policy and direction for Council to conserve and manage biodiversity impacts now and into the future.

Land use options on the Maleny Community Precinct site should seek to promote the retention and enhancement of biodiversity by, for example:

- Adopting the 'precautionary principle' in development and ensuring development is ecologically sustainable;
- Retention and rehabilitation of existing vegetation and ecosystems especially along the Obi Obi Creek;
- Incorporating revegetation;
- Maintenance and enhancement of habitat linkages and corridors
- Utilising local native species; and
- Promoting environmental education.

### ***Social Policy & Strategy for Caloundra City 2004***

This document identified a number of actions that relate to Maleny and a couple specific to the precinct. These actions include:

- ▶ Continue to investigate the potential community and recreation facility development in the Maleny Community Precinct Project and, following endorsement of the Master Plan, amend appropriate planning documents to reflect outcome;
- ▶ Community Halls – provide support, advice and resources to assist community halls managed and owned by local communities to be redeveloped, expanded or renovated to meet community needs (Maleny Community Centre);
- ▶ Advocate for the establishment and development of a network of community/neighbourhood centres in the City in partnership with the State Government – need for permanent site at Maleny; and
- ▶ Investigate provision of proposed space shortfall at Maleny Library of 58m<sup>2</sup>; and
- ▶ In the Master Planning process of the Maleny Community Precinct Project investigate the inclusion of a Performance Space, Arts Enterprise and Youth Centre or, alternatively, in conjunction with the redevelopment of other community spaces in the CBD.

### ***Recreation Policy & Strategy for Caloundra City 2004***

This document identified a number of actions that relate to Maleny and a couple specific to the precinct. These actions include:

- ▶ Maleny School Pool – include in Community Precinct project. Investigate relocation or increased community access;
- ▶ Arts Enterprise Centre – investigate the provision of semi-industrial space for training, development and rehearsal for the Arts/Culture. Investigate Maleny as a possible site;
- ▶ Continue to investigate the potential community and recreation facility development in the Maleny Community Precinct Project and,

following endorsement of the Master Plan, amend appropriate planning documents to reflect outcome; and

- ▶ Investigate opportunities to develop Botanical Gardens and community gardens in the City.

If it is determined that recreational facilities are to be located on the site, the Guiding Principles identified in the document are also relevant. These are:

- ▶ Equity;
- ▶ Environmental Sustainability;
- ▶ Safety and Security;
- ▶ Transport;
- ▶ Multiple Use and Clustering;
- ▶ Innovation;
- ▶ Private Sector Involvement;
- ▶ Diversity;
- ▶ Distribution/Feasibility (full life cycle costing);
- ▶ Management;
- ▶ Integration;
- ▶ Community Involvement; and
- ▶ Standards.

## 4 Site Characteristics

### Physical Factors

#### *4.1 Topography*

The site slopes steeply from the northern boundary down to the Obi Obi Creek which forms the southern border of the site. A number of gullies run north-south through the site through to Obi Obi Creek. There are steep scarps on the outside bends in the banks of Obi Obi Creek. A number of small landslips are evident on the site. (Refer to **Map 6a**)

The side slopes of ridges are typically 5 to 15 percent (although some areas are over 25 percent) and the flattest ground is along the tops of the ridges and on the southern portion of the property which abuts Obi Obi Creek. (Refer to **Map 6b**)

#### *4.2 Geology*

The site is covered by Tertiary basalt (lava flows) typical of the region. Groundwater on the site was found to be generally greater than 2m below the ground surface and there were indications the site drains reasonably quickly. (EIS p3)

The Maleny Community Precinct site is contained within the following zones (shown on **Map 7**):

- ▶ A2 – This zone covers the majority of the site. The zone comprises gently undulating to slightly hilly remnants of the plateau surface. Soils are deep but generally stable. Local areas of moderate to steep slopes (over 8 degrees), and seepage zones could cause instability. The zone is generally suitable for close urban settlement, although local moderate to steep slopes should be avoided.
- ▶ A2 B2 – This zone covers the northern part of the site. The zone is a gradation between zones A2 and B2. the area is more hilly than A2 zone and is suitable for a mixture of closer settlement with less dense small acreage settlement with building sites chiefly on ridge crests. Moderate to steep slopes should be avoided for building. If used for roads or building, precautions such as minimising cut and fill, securing footings in weathered rock, and use of light, timber construction of stumps (as opposed to slab) should be considered. Building on seepage zones should be avoided.

Design of subdivision, methods of construction and wastewater disposal on slopes should be professionally examined.

- ▶ D3 – this zone incorporates moderate to steep slopes (in general over 15 degrees) on the escarpment and adjacent to gullies such as Obi Obi Creek. Small landslides are frequent. The zone is considered generally unsuitable for closer subdivision and building. In addition no further clearing should occur in this zone.

The zones are regional scale and the study suggests that more detailed site specific study is required to establish local sub-zoning.

Further investigations of the site geology are required.

### ***4.3 Climate***

Maleny has a sub-tropical climate. The mean annual rainfall recorded at Maleny is 2008mm, with the rainiest months occurring during summer, with an average of approximately 6 days of rain per month, and the driest months over winter, with an average of approximately 2.5 to 3 days of rain per month.

### ***4.4 Flooding***

Due to the steepness of the terrain, flooding is generally confined to within the banks of the Obi Obi Creek.

The Q100 flood level line associated with the Obi Obi Creek has been based on the available flood level information and contour levels. Land identified as being below the Q100 flood level is considered to be constrained to development, in particular residential development (Kinhill 1997).

There is no recent evidence of flooding. Refer to **Map 8** which indicates the 2,10, and 100 year ARI and PMF.

Velocities of floodwaters in the Obi Obi Creek are typically high, creating significant hazard. (Obi Obi Creek Flood Study, GHD 2001)

### ***4.5 Drainage Lines***

The natural drainage lines of the site flow directly into the Obi Obi Creek, which flows into Baroon Pocket Dam, the region's principal water supply and major recreational and scenic resource. The majority of these drainage lines have minimal vegetation along them. (Refer to **Map 9**)

There are suggestions in historical material that there may be natural springs located on the land.

Further investigations of the site hydrology are required.



Natural drainage lines on the site

#### **4.6 Soil Type**

The underlying geology of the site is tertiary olivine basalts.

The southern portion of the site, along Obi Obi and the central drainage line is composed of kraznozems, characterised by uniform of gradational red, friable structured clay soils. The soil contains aluminium oxyhydroxides and well as iron and the soil has a large capacity to absorb and retain phosphate. However, clay soils erode easily and tend to reach their infiltration capacity faster than other soils, promoting overland flow. A potential consequence is that both bound and unbound nutrients will enter the watercourses via erosion and runoff. (Lake Baroon Catchment Management Strategy, p.19)

Further investigations of the site geology are required.

#### **4.7 Landslip Areas**

**Map 10** indicates the landslide hazard management areas on the property as identified in the Draft Caloundra City Landslide Risk Assessment Study (2006). Land that falls within the natural hazard management area should not automatically be quarantined from development, but its inclusion should trigger the requirement to undertake a site specific geotechnical investigation before development approval is given.

The Maleny Community Precinct site is identified as being predominantly within the Zone 2 category. Zone 2 indicates areas where the slopes exceed 15 degrees in basalt. While fresh basalt is reasonably stable, much of the rock is weathered, and concave areas in particular may have a cover of unstable colluvium. Failures can also occur in other areas of colluvium and soil mantling the basalt. The sides of gullies are particularly susceptible. Wet areas should be avoided unless they can be successfully and permanently drained, and clearing can also trigger instability. Where stable areas are identified for development, the potential problem of access via



unstable areas or necessitating problematical road cuts must be considered. (Institute for International Development, 2006)

Some localised erosion has occurred on steeper slopes in the north of the site due to clearing and cattle grazing. In the areas subject to landslip, the retention of existing vegetation and revegetation is encouraged.



Localised erosion



#### ***4.8 Water Supply Catchment***

The whole of the subject site is within the Lake Baroon Pocket Dam Catchment. The Obi Obi Creek (42.55km<sup>2</sup>) which runs along the southern border of the site, comprises one of Lake Baroon Pocket Dam's three sub-catchments.

#### ***4.9 Bushfire Hazard***

The Maleny Community Precinct site contains relatively large areas of medium potential hazard as identified in the Caloundra City Bushfire Management Strategy (2005). Small areas of high hazard are located along the vegetated banks of the Obi Obi Creek (Refer to **Map 11**). It should be noted that although the property has been extensively cleared, pasture and grassland (even if grazed) can produce a bushfire hazard.

Specific risk reduction strategies will need to be identified once land use/s proposed on the site are known.

### **Environmental Factors**

#### ***4.10 Fauna***

Remnant riparian vegetation along the banks of the Obi Obi Creek, and the creek itself, provide key habitat areas and corridors for both arboreal and ground dwelling animals and birds and aquatic species. Birds observed on the site in February 1994 included:

*Australian Brush Turkey, Pale-headed Rosella, Rainbow Lorikeet, Crested Pigeon, Wonga Pigeon, Cattle Egret, Straw-necked Ibis, Black Duck, Pied Cormorant, Kookaburra, Eastern Whipbird, Welcome Swallow, Black-faced Cuckoo-shrike, Varied Triller, Woodswallow, Willy Wagtail, Restless Flycatcher, White-browed Scrubwren, Red-browed Firetail, Golden-headed Cisticola, Lewin's Honeyeater, Magpie Lark, Figbird, Australian Magpie, Pied Currowong, Grey Butcherbird and Torresian Crow.*

There is some information available with regard to fauna across Maleny and its surrounds that was collated for the Maleny LAP, however, further investigations on fauna which may be located on the site itself will need to be undertaken.

The continued survival of species on the site will be dependent upon the maintenance of habitat, weed control and the provision of adequate habitat linkages.

#### **4.11 Significant Vegetation**

The site has been predominantly cleared of vegetation to accommodate previous pastoral and agricultural activities. The majority of the remaining vegetation is located adjacent to Obi Obi Creek.

A portion of remnant vegetation along the Obi Obi Creek has been identified as an "endangered" regional ecosystem (RE 12.3.1). The endangered regional ecosystem is Gallery rainforest (notophyll vine forest) (Refer to **Map 12**).

An area of "of concern" regional ecosystem, (RE 12.3.8) Palustrine wetland, is located along one of the tributary gullies to Obi Obi Creek which runs through the site, and has been significantly altered and damaged by cattle.



Native sedges in palustrine wetland



Damage by cattle at edges of wetland

A small area to the east of the property (Porter's Wood on Porters Lane) contains an area of "high priority" locally significant vegetation (Olsen 2001).



Porter's Wood

There are several large native Moreton Bay and small leaf fig trees scattered throughout the property.



A range of studies recommend that further revegetation works be undertaken on the site.

#### ***4.12 Pest Species***

A significant number of mature pine trees and camphor laurels are located along the banks of Obi Obi Creek and assist in bank stabilisation.

There are substantial infestations of exotic species, including small and broad leaf privet, chinese elm, lantana, wild tobacco, balloon cotton and coral trees. However, these areas, along with plantings along fence lines etc, still provide wildlife corridors which need to be managed in a way that protects the corridors but gradually removes exotics and replaces with native vegetation.

Some planting has been undertaken on the northern banks of the Obi Obi Creek to create a more robust buffer (approx 40m wide and 1200m long) to the creek as recommended in the EIS for the effluent disposal on the site.

A Vegetation List for the Armstrong property (on which most of the vegetation exists) was prepared for the EIS and a more site specific preliminary investigation has been undertaken and is included in Appendix 1.



Slash Pine and Small Leaf Privet along the creek line

A site specific fauna study needs to be undertaken to identify pest animals on the site.

#### **4.13 Waterways**

Obi Obi Creek which runs along the southern perimeter of the site has a severely degraded riparian zone, particularly on the areas within the Maleny Community Precinct site. A number of drainage lines running through the site flow directly into the creek, the majority of which have been denuded of vegetation.



Obi Obi Creek at the south western corner of the site

The creek will require significant work including weed removal, revegetation of riparian zones with local native plants and substantive buffer zones from development.

Quality of runoff from the site is affected by steep slopes, erosion, clearing and cattle grazing.

Water quality is monitored at several locations along the Obi Obi Creek (Refer to **Map 13**). The monitoring indicates that:

- ▶ the STP consistently meets the requirements of the Environmental Management Plan;
- ▶ the confirm levels in the Obi Obi Creek are higher upstream of the STP than downstream.

#### ***4.14 Ground Water***

“The John Porter Family in Australia” indicates that during a large drought in 1918, the only water available at the Porter Farm was obtained from several springs which were cleared and deepened regularly.

The EIS for the former Armstrong property indicates that the groundwater was generally greater than 2m below the ground surface and there are indications the site drains reasonably quickly. Seepage into the gullies from the upper limit of the highly weathered basalt was noted at several locations.

As information is only available for the southern portion of the site, further hydrologic investigations need to be undertaken.

#### ***4.15 Contaminated Land***

The Maleny LAP identifies the Maleny Water Pollution Control Works (including irrigation areas) as being a contaminated site requiring the preparation of a contaminated land report if it was to be developed.

The Contaminated Land Register does not identify the site as being registered for any other possible land use which might cause contamination, however as the area has been used for grazing purposes it is likely that cattle dips exist. Further investigation of the site will be required to determine the level of site contamination.

### **Land Use**

#### ***4.16 Existing Land Use***

The land is currently used for the grazing of dairy cattle (under two separate agistment agreements) and approximately 6 hectares of the southern most finger of the site is currently used to irrigate treated effluent.

Armstrong’s House (Fairview/Pattemore House) is currently rented for private residential purposes, with the lease for the tenancy expiring on the 20 June 2007.

#### ***4.17 Existing Open Space Network***

Maleny has access to a significant array of open space, including local parks, reserves along Obi Obi Creek, sporting facilities, ecological reserves such as Mary Cairncross Scenic Reserve, Gardners Falls along with the playing fields and facilities at the primary and secondary schools. There is currently an identified shortfall in both local and district recreational parks and multi-sports land. (Refer to **Map 14**)

#### ***4.18 Existing Community Facilities***

The Maleny community is serviced by a range of community facilities. These community facilities (identified on **Map 15**) include:

- Educational facilities (state preschool, primary and high schools);
- Medical and emergency facilities (hospital, ambulance and police station);
- Infrastructure facilities (related to water supply, sewerage, waste disposal, electricity and telecommunications systems, carparking areas and Council depot);
- Community buildings (the Community Centre, RSL Hall, library, and the Old Witta School);
- The Maleny Showgrounds;
- Witta cemetery;
- Scout and girl guide halls; and
- Religious sites (churches).

It was concluded in the LAP process that there were sufficient community facilities to accommodate the expected population of 7,600 people. (Also refer to Social Strategy)

### **Infrastructure**

#### ***4.19 Transport Networks***

Major road links within the Planning Area include Landsborough-Maleny Road, Maleny-Stanley River Road, Maleny-Montville Road, Maleny-Kenilworth Road and Mountain View Road.

North Maleny Road, which forms the northern boundary of the site, is a local road administered by Caloundra City Council. It is a two lane rural standard road along the full northern frontage of the site. The Maleny Community Precinct site is currently accessed through Obi Obi Lane (north). Any development on this site may require the upgrading of these road links.

There are long term plans to investigate the upgrade and connection of Obi Obi Lanes with a bridge crossing over Obi Obi Creek, to allow traffic to and



from North Maleny (and the Lake Baroon area) to access the Landsborough - Maleny Road without having to travel through the town centre.

Public Transport – public transport in the Maleny area is limited to a taxi service and a local bus which runs between Maple Street and the Landsborough train station. There are currently no plans to expand this service. The majority of transportation is by private vehicle.

Pathways/Bikeways – there are no bikeways in close proximity to this site, however, a narrow pedestrian pathway is provided from the Maleny township along the northern side of Teak Street, through to the intersection of Tamarind Street and another is currently being constructed on the southern side of North Maleny road along the frontage of the “Cloudwalk” development. (Refer to **Map 16**)

#### ***4.20 Water & Sewerage Infrastructure***

Maleny’s water supply comes primarily from the Obi Obi Creek. However, no reticulated town water or reticulated sewerage is available to the Maleny Plateau Planning Area. This site directly abuts the Maleny Township Planning Area, and reticulated water supply and sewerage are connected (or have the ability to be connected) to all parts of the Maleny Township Planning Area. (Refer to **Map 17**)

##### Water

The water treatment plant and Obi Obi Creek are unable to service the existing population (in the township), without regular water restrictions. Augmentation of the supply is required to increase capacity of the service for the existing population and to cater for additional population.

It should be noted that about 5 years ago, some residents of Maleny objected strongly to the \$1.5 million proposal which would have seen a new water pipeline connected to the town from the dam's Landers Shute treatment plant, which also services Maroochy Shire. Reasons for objection included the increase of greenhouse emissions from pumps required to move the water, risk of the pipe being damaged (landslides etc) and the community exposed to the risk of no water and the reduction in autonomy – the community having to rely on an external provider.

There is an underground water line running from Obi Obi Creek to the dairy at the top of the site. This is to be protected.

There is a weir located on Obi Obi Creek at the south western corner of the site, to the east of the junction of Walkers Creek.

##### Sewerage

As indicated on **Map 17**, the Maleny STP currently utilises 6 hectares (for a population of approximately 2000 people) of the southern portion of the site

(Armstrong's Farm) as an irrigation area for effluent. Investigations are currently underway to determine future treatment requirements and effluent management options to ensure compliance with future license conditions.

The Licence (Licence No SR316) issued under the Environmental Protection Act 1994 for the carrying out of an environmentally relevant activity, namely sewage treatment is effective from 27 January 2000.

The licence relates to ERA 15(c) - sewage treatment operating a standard sewage treatment works having a peak design capacity to treat sewage of 1500 or more equivalent persons but less than 4000 equivalent persons.

Relevant licence conditions include:

- ▶ No release of contaminants from the licenced place is to cause a noxious or offensive odour beyond the boundaries of the licenced place.
- ▶ The contaminant release area must not be used for grazing, recreational activities or as a traffic thoroughfare.
- ▶ Release of irrigation water must be on the defined release area. There must be no direct or indirect release of irrigation water to any watercourse or stormwater drain.
- ▶ Release of irrigation water to land must not be carried out on areas with a gradient greater than 15%.
- ▶ Release of irrigation water to land must not be carried out if soil moisture conditions are such that surface runoff or ponding is likely to occur.
- ▶ The release area, where irrigation occurs, must be maintained in a proper and efficient condition so as to provide adequate assimilation, percolation, evaporation and transpiration of the released water.
- ▶ Spray, from any irrigation water, must not drift beyond the boundaries of the licensed place.
- ▶ Public access to any contaminant release area on land must be denied.
- ▶ The contaminants released are to conform to particular characteristics which have been identified in Schedule E.

With the proposed upgrade of the STP, this licence and associated conditions would be reviewed.

The Caloundra City Plan indicates that no new holding tanks are to be approved in the Planning Area.

There is a sewer rising main running through the property (Easement B on RP177665, Note # (00260-0)).



It is to be assumed that any development on this site will not have access to the reticulated water supply or reticulated sewerage and will therefore need to be self sufficient.

#### Stormwater

There is no stormwater infrastructure present within the site. The site currently drains in a southerly direction to the Obi Obi Creek, which forms the southern boundary, which then flows in an easterly direction away from the site and towards Lake Baroon Pocket Dam.

Stormwater in Maleny is generally untreated and enters all creek systems via runoff. All new developments are required as a condition of approval to prepare an erosion, and stormwater management plan to minimise erosion and silt/sediment transportation during both construction and post construction phases of development.

#### **4.21 Electricity**

There is an electricity easement (11kv), approximately 25 m wide, running through the site from the northern most corner to the south westerly corner of the property. (Refer to **Map 18**)

#### Other

#### **4.22 Local Character**

The Maleny Local Area Plan identifies the major elements of the rural character of Maleny as being:

- ▶ the rolling green hills (views across undulating countryside);
- ▶ productive atmosphere (dairying, grazing, cropping, tree crops etc);
- ▶ the openness (lack of structures, except scattered houses and rural structures); and
- ▶ a backdrop of vegetation and vegetated hills.

The Cultural Mapping Project for Maleny undertaken by ELR in September 2005 also identifies a number of themes that the community identify with, which acknowledge past, present and future, and provide opportunities to be developed as treatments for streetscapes and artwork. These themes include:

- ▶ Dairy industry and cream carriers linking the community;
- ▶ Natural elements – climate, vegetation, geology;
- ▶ A resourceful community;
- ▶ A creative community;
- ▶ Bunya Pine;
- ▶ Timber;
- ▶ Lost Community;

- ▶ German influence on Maleny; and
- ▶ Stories of Cooperation.

Development and design should be in keeping with the local character.

#### **4.23 Scenic Amenity/View Lines**

A preliminary review of view lines to and from the site has been undertaken. The majority of the site is highly visible from North Maleny Road (including from the Cloudwalk development) and Obi Obi Lane. (Refer to **Map 19**)



Site as viewed from North Maleny Road with Cloudwalk in foreground

There are limited view lines from Landsborough-Maleny Road, with the viewlines focussing more on the Cloudwalk site to the west). There are some views of the northern parts of the site from Howards Lane.

Closer to Maleny (near the church and retirement village) the road and footpath follow quite closely to the creek and the site is visible through the vegetation, although it is more noticeable to the walker.



Site as viewed from footpath beside Landsborough-Maleny Road

The site is not visible from Maple Street, however the Cloudwalk development to the west is.



View from Maple St near community centre

There is a clear view of the site from the Maleny Bowls Club green and the Maleny High School on Bunya Street looking north.



Site as viewed from Bowls Club bottom carpark

From the Maleny Community Precinct site itself, there are clear views of the Cloudwalk development from almost everywhere on the site. There are views across the Maleny Township and the Glasshouse Mountains (one peak) from the northernmost part of the site. There are limited views from the bottom of the site due to the vegetation on the southern side of the creek, however, there are clear views of the retirement village and housing to the south where the riparian vegetation has been cleared.

#### ***4.24 Heritage Values***

'Fairview' or 'Armstrong's house' is located on the site. The house is listed on the State Government Cultural Heritage Register. The house was constructed in 1907 of local Beech which was cut, pit sawn and dressed on the property, for Robert and Emily Pattemore. The house is important in demonstrating the early development of Maleny as an agricultural settlement and the

expansion of dairying in Queensland in the early 1900's. It is one of the oldest surviving pit sawn timber residences in the area.



Fairview

'Porters Wood' on the adjacent property is locally significant and has been identified in the Caloundra City Plan as a Cultural Heritage site. It is significant as a rare example of the vegetation which formerly covered the Blackall Range.

In addition, there may be a number of indigenous and non-indigenous cultural heritage significance located on the property. A cultural heritage assessment needs to be undertaken to confirm any sites and to determine the appropriate action.

## SECTION 2: OTHER CONSIDERATIONS

### 5 Proposed Options

The community, through previous consultation, and Council through various studies have identified a range of potential future uses for the site. The following list of uses are those that have for the site to date. This list is not exhaustive and in no way implies that these uses should or should not occur on the site.

These uses include:

| Option  | Requirements   | Need Identified   |
|---|--|---|
| 9 hole community golf course  | 25ha unconstrained land, undulating greens and fairways without hill climbing<br>Length – 2.75km – 3.05km    |   |
| 18 hole medium grade golf course  | 48 – 72ha unconstrained land, undulating greens and fairways without hill climbing<br>Length – 5.5km – 6.1km |   |
| 18 hole community golf course, 100 residential, community facilities and an esplanade along Obi Obi Creek | Whole site   |   |
| Relocation of the bowls club to the site  | Approx 3500sqm (one green, clubhouse and parking)  | Ernst & Young feasibility   |
| Caravan park/camping area   | Min 1 ha<br>Refer to specific site selection criteria.   |   |
| Affordable Housing  |  |   |
| Small scale resort  |  | Economic Structure and Trends of the Maleny and Environs DCP (Planning Study) May 2000<br><i>Section 5.1.4 states that " the area does lack a major sports or health related resort, which is an opportunity that could be pursued further. An opportunity for the development of a resort with</i> |

|  |         |  |
|--|---------|--|
|  |         | <i>a sporting theme (eg. Golf, tennis, horse riding, hiking etc), combined with the health industry would appear to have a likely chance of success in this region from an economic viewpoint."</i>  |
| Swimming Pool  | 3500sqm | Recreation Policy and Strategy   |
| Retirement Village   |         | There has been a recent application on Bean-Palm Street, Maleny for a residential subdivision. This lot was one of the prime retirement village sites within Maleny and if it is not used for a retirement village, there may be greater pressure placed on the Maleny Community Precinct to provide this retirement function. |
| Garden Club  |         |  |
| Move ovals from Primary School to allow better reconfiguration of parking and school entrance                                      |         |  |
| Arts and crafts industrial estate eg: like Byron Bay, for local jam makers etc who currently operate out of their homes.           | 15 ha   | Review of the industrial area in Maleny indicates a need.<br><br>Maleny LAP  |
| State/Botanic Gardens – which might include a centre for Biodiversity, gardeners markets, model farm, sub-tropical rainforest etc. | 50ha    | Recreation Policy and Strategy – recommended an investigation of opportunities.<br><br>Refer to feasibility being undertaken   |

|   |  |   |
|---|--|---|
| Community meeting rooms   | for groups of <70  | Recreation Policy & Strategy  |
| Expansion of existing library services                                  | 58sqm current shortfall  | Social Policy & Strategy  |
| Performance venue for cultural/art activities                           | for up to 150 people   | Social Policy & Strategy  |
| Youth/art enterprise multi purpose facility                             |  | Recreation Policy & Strategy<br>Social Policy & Strategy  |
| Permanent site of facility upgrade for neighbourhood centre             |  | Social Policy & Strategy  |
| Revegetation of the creek, drainage lines and landslip areas.           |  | Lake Baroon Catchment Management Strategy<br>Obi Obi Flood Study & Stormwater Mgmt Plan<br>Biodiversity Strategy<br>Landslide Risk Assessment Study |
| Establishment of ecological linkages for fauna movement.                |  | Biodiversity Strategy   |
| Pedestrian and bicycle connection along Obi Obi creek to Gardners Falls | Minimum 2.5m path within a minimum corridor width of 8-10m   | Maleny LAP<br>Recreational Links and Trails Strategy<br>Bicycle & Pedestrian Strategy   |
| Local and District recreational parks                                   | 0.5ha – 5 ha   | Draft Open Space Strategy   |
| Land for treated effluent disposal                                      | Current - 6 ha, future – ranges from nil to a possible additional 18ha                             | Upgrade of Maleny STP report  |
| Artificial wetland  | 2,500sqm   | Obi Obi Flood Study & Stormwater Mgmt Plan  |
| Farm Forestry   | Minimum 0.5ha<br>20° slope or less<br>soil type suitability<br>substantially cleared of vegetation | Investigation of Farm Forestry Opportunities on CCC controlled land   |

## 6 Maleny Community Precinct - Applications for Tenure

|   | Requirements  | Proposed Usage   | Special Needs  |
|---|---|--|--|
| Barung Landcare Association             | Minimum 2 hectares open, flat, frost and flood free lands (beside Armstrong Farmhouse)<br>Custody of remnant rainforest on Porter sisters' land. Building – 2 levels, minimum 200sqm, plus shadehouses, hot houses, chemstore and tool shed | Native plant nursery and Landcare Resource Centre for education programs           | Easy road access and high visibility, reticulated water (and treated wastewater), 3 phase power and small dam. |
| Maleny Rangers Soccer Club              | 4.5 acres (2ha)   |  |  |
| Rotary Club of Maleny                   | 4000 sqm (1 acre)   |  |  |
| Maleny Amateur Drama Club               | 2000sqm with building, car parking, landscaping. Building: 1 level, 500sqm, requires high acoustic standard, with 144sqm secure storage (sketches available)  | Rehearsals and performances, workshops, dance exams, drawing classes etc           | Water, 3 phase power, sewerage   |
| Maleny District Green Hills Fund        | Land: "As much land as possible" to develop State gardens as a cornerstone to the precinct.<br>Building: No buildings required.   | State gardens – details to be decided  | Use of watercourses, recycled water  |
| Maleny Golf Club Inc                    | Land: About 150 acres,<br>Building: clubhouse plus 100 car parking spaces   | Public golf course with revegetation of creek and watercourses, and along fairways | Use recycled, treated water  |
| Maleny History and Preservation Society | Land: 1 hectare<br>Building: Pattemore House (also known as   | Historical display, historical   |  |



|                             |  |  |                                   |
|-----------------------------|--|--|-----------------------------------|
|                             | Fairview or Armstrongs House) and outbuildings, plus public toilets and shelters | resource centre                                |                                   |
| Maleny Swimming Club        | Land: 1-2 acres<br>Building: Shared facilities – toilets, change rooms etc       | Public swimming pool available 7 days per week | 3 phase power, water and sewerage |
| Maleny Community Gym        | Building: Floor space in clubhouse   |  |                                   |
| Maleny Contract Bridge Club | Building: Floor space in clubhouse   |  |                                   |

## 7 Issues

There are a number of issues that need to be considered when planning for the future of this site. These issues include:

- ▶ Drivers for Council – land is within the ‘Urban Footprint’, the land is mostly Council owned, options need to be financial viability; options need to be socially, economically and environmentally “courageous”; clean slate – need the best possible future use; commitment to openness and inclusiveness in consultation.
- ▶ Any future uses for the Maleny area (for the next 25 years) will have to be accommodated within the Maleny Township Precinct or potentially this site.
- ▶ The proposal (if it includes a residential component) may alter existing staging/sequencing plans and soak up a large portion of demand for residential allotments in Maleny for the next 10 years or may encourage faster growth than anticipated.
- ▶ Two lots are required to be provided on the site as part of a contractual obligation.
- ▶ There appears to be a need for retirement village in the area.
- ▶ There appears to be a need for additional industrial land in the area.
- ▶ The respective roles of Council as the Statutory Planning Authority and the land owner/service provider.
- ▶ The options need to be sustainable against a triple bottom line framework, underpinned by a Council financial sustainability outcome.
- ▶ Potential cost of displacement of disposal of treated effluent from the site.

## 8 Land Use Parameters

Land with slopes over 1 in 3 (33%) are generally considered to be unsuitable for development, and land with slopes between 1 in 6 (16 %) and 1 in 3 (33%) require specific design requirements.

Caloundra City Plan indicates that development should not occur on land with a slope exceeding 1 in 4 (25%), with at least 50% of the site having a slope not exceeding 1 in 6 (16%).

### 8.1 Industrial Land (*service and light industry*)

- ▶ Slope – less than 1:15 (6%). Slopes under 7% over most of the site are considered desirable for industrial development.
- ▶ Landslip – land which is subject to landslip is not considered suitable for development.
- ▶ Flood Prone Land – land which is flood prone is considered to be constrained for industrial development. The provision of flood free access is also important.
- ▶ Access to infrastructure (water, electricity, transport access, communications) – availability of adequate capacity in infrastructure is essential and therefore to reduce costs a location within 1 km of reticulated services would be desirable.
- ▶ Geology – land which may contain unsuitable foundations for industrial development are considered to be constrained and will be considered following initial analysis. (testing of the preferred sites will be required to ensure the soil types are suitable for industrial development).
- ▶ Geo-technical foundation conditions are a critical factor in assessing land development costs. The geo-technical conditions at a site will affect the costs of constructing roads and building foundations and also affect drainage solutions. If a site with poor ground conditions is chosen for development, the engineering solutions required to overcome the poor soil are likely to be expensive. For example a site with reactive clays may require larger foundations for buildings, a site with near surface rock may require more imported fill, or rock blasting and excavation.
- ▶ Separation from residential uses – land within the 500m separation distance from existing and proposed residential areas is constrained from industrial development. All land within 250m from existing and proposed rural residential is constrained from industrial development. (Caloundra City Plan requirements - 10m wide landscape buffers are to be provided)
- ▶ Buffers to sensitive environments, ie: Obi Obi Creek are required.
- ▶ Visibility – the potential impact of the developed site on identified scenic routes will need to be assessed.
- ▶ Land area – an area of around 15 hectares is required.

## **8.2 Residential**

- ▶ Slopes - Caloundra City Plan indicates that residential development should not occur on land with a slope exceeding 1 in 4 (25%), with at least 50% of the site having a slope not exceeding 1 in 6 (16%).
- ▶ Access - Road access should not be on land steeper than 1 in 5 (20%).
- ▶ Flood Prone Land – access routes must be safely trafficable in a 1 in 100 year flood event and all building sites are to be flood free (ie: above the Q100).
- ▶ Water
- ▶ Sewerage (appropriate soils)

## **8.3 Sports**

- ▶ Land Area - Minimum of 10 hectares
- ▶ Access – close to collector road and connected to bicycle/pedestrian path. At least one side or 25% of the site perimeter to have direct access to a public road.
- ▶ Slope- partially flat, with a 5% gradient or less.
- ▶ Distribution – 1 district sports park for the rural towns.
- ▶ Flood prone land – sufficient land above the Q100 to house required facilities and amenities, remainder of land to be above the 20 year ARI flood level (Q20)
- ▶ is not to contain an above ground installation such as high voltage power lines.
- ▶ not listed as a contaminated site.

## **8.4 Community Uses**

- ▶ Land Area – dependent upon specific facility required.
- ▶ Location - Close proximity to Town Centre and residential areas
- ▶ Access – on or close to a distributor or arterial road. Connected to the bicycle/pedestrian network. At least one side or 50% of the perimeter to have direct access to a public road.
- ▶ Distribution – 1 facility/10,000 – 30,000 people.
- ▶ Flood prone – access routes must be safely trafficable in a 1 in 100 year flood event and all building sites are to be flood free (ie: above the Q100).

## **8.5 Golf Course**

- ▶ 18 holes generally requires an area of between 48ha and 72ha, whilst 9 full length holes requires 25ha of suitable unconstrained land. A 9 hole par 3 can be constructed on as little as 10ha of suitable land.

- ▶ The total length of an 18 hole golf course is generally 5.5km (min) to 6.1km (preferred). A 9 hole course would ideally cover half the distance.
- ▶ Length of holes generally:
  - Men:
    - Par 3 – up to 230m
    - Par 4 – 230 to 430m
    - Par 5 – 430 to 630m
    - Par 6 – 630m+
  - Women:
    - Par 3 – up to 210y
    - Par 4 – 211 to 400y
    - Par 5 – 401 to 575y
    - Par 6 – 575y+
- ▶ The majority of the golfing demographic can be classified as 45+ males.
- ▶

### **8.6 Botanic Garden**

- ▶ Minimum site area of 50ha.

### **8.7 Infrastructure**

- ▶ Road access should not be on land steeper than 1 in 5 (20%).
- ▶ The geo-technical conditions at a site will affect the costs of constructing roads and building foundations and also affect drainage solutions. If a site with poor ground conditions is chosen for development, the engineering solutions required to overcome the poor soil are likely to be expensive.

### **8.8 Buffer Zones to Incompatible Land Uses**

CalAqua advice from 2003 indicates there is no legal requirement, outside the Council's planning policies, for a buffer around the treatment plant. The practice followed by CalAqua is based on State Government guidelines which recommend various buffer distances between sewerage treatment plants and other forms of development depending on the size of the plant.

The recommended buffer distances for land use in proximity to effluent irrigated areas by the Department of Environment & Heritage (referenced in EIS for Land Disposal of Treated Wastewater for Maleny WPCW, 1994) are as follows:

Table 1: DEH recommended buffer distances for land use in proximity to effluent irrigated areas.

| Land Use                             | Minimum Buffer Zone |                  |           |
|--------------------------------------|---------------------|------------------|-----------|
|                                      | Drip Irrigation     | Spray Irrigation |           |
|                                      |                     | Treed*           | Non-treed |
| Residential Areas                    | 1.5-6m              | 50m              | 75m       |
| Camping Areas                        | 6-20m               | 50m              | 75m       |
| Sensitive Watercourses               | 50m                 | 50m              | 75m       |
| Watercourse                          | 20-50m              | 20m              | 30m       |
| Dry Gully                            | 6m                  | 10m              | 15m       |
| Taps from which the public may drink | 6-20m               | 50m              | 75m       |
| Property boundary                    | 1.5-6m              | 20m              | 30m       |
| Public Road                          | 1.5-6m              | 20m              | 30m       |
| Recreation Areas                     | 6-20m               | 20m              | 30m       |
| Water Supply Bores                   | 50m                 | 250m             | 250m      |
| National Park                        | 20m                 | 20m              | 30m       |

\* Treed buffer zones are where the average height of vegetation in the zone is approximately 6m.

However, the EIS report recommended a buffer distance from effluent irrigation areas to rural residential dwellings of no less than 75m and low density dwellings of a distance no less than 500m.

The EPA has adopted the Victorian EPA, *Recommended Buffer Distances for Residual Air Emissions*, Publication no. AQ2/86, as an interim guideline on buffer distances. This guideline recommends that the buffer distance for sewerage treatment or effluent disposal works should be determined in consultation with EPA, as wind regimes, topography, waste-loading, treatment/disposal methods and design capacity should be taken into account.

## 9 Previous Studies

A number of studies have been undertaken in Maleny, the outcomes of which have implications for the Maleny Community Precinct site. These studies and their outcomes, particularly if associated with the site, are documented below.

### **Recreation:**

#### **Draft Open Space Strategy – Maleny and Maleny Plateau Planning Area Assessment (2007)**

This Strategy identifies the following issues in relation to the Maleny Township and surrounds:

- ▶ The Maleny Open Space network is challenged by the topography of the area and the growth that will occur.
- ▶ Land suitable for recreation, sport and specific purpose (pool) is in short supply.
- ▶ Maleny and surrounds is a significant area for scenic amenity and visual characteristics for the City.
- ▶ Council has control over a significant land parcel 'community precinct' that may provide Open Space outcomes once the required planning process has been completed.

The Strategy recommends the following:

- ▶ Continue to prepare the Community and Cultural Study to determine future Open Space required;
- ▶ Prepare a Master Plan for Obi Obi Walk;
- ▶ Undertake the Structure Planning for Maleny Community Precinct;
- ▶ Identify land to acquire an additional district park for the community;
- ▶ Acquire and develop 3 local and 1 district park; and
- ▶ Prepare a Master Plan for Maleny Showgrounds.

#### **Caloundra Recreational Trails Master Plan (2006)**

The Caloundra Recreational Trails Master Plan, endorsed by Council on 11<sup>th</sup> May 2006, prioritises the development of trails identified in the Recreation Links and Trails Strategy in accordance with adopted assessment criteria. In endorsing the Master Plan, Council resolved to include the Maleny-Gardners Falls trail as a priority trail.

### **Aquatic Facilities Study (Oct 2005)**

The purpose of this study was to consider the existing and likely future aquatic needs of residents to ensure that an integrated and well planned suite of swimming pools is available to service the existing population.

The study looked at demographics, the condition of the seven existing pools and participation trends.

The study noted that the hinterland areas of Council had a higher level of "younger" people, and that there was a high proportion of low income earners and therefore a degree of price sensitivity to pool fees.

There were three actions recommended for Maleny, specifically the Maleny School Pool and subsequently endorsed by Council. Council has been actively implementing these actions and the current status of planning is as follows:

- ▶ Immediate repair of safety items at the School pool have been completed;
- ▶ Concept design of aquatic facility needs to commence in March
- ▶ Site investigations of the Show grounds and Queensland Education land is being undertaken; and
- ▶ Continued representation in the Structure Planning if the Maleny Community Precinct.

### **Hinterland Recreation Study 2005**

The Hinterland Recreation Study was undertaken to establish direction for the future planning and delivery of sport and recreation facilities and services to 2016. The study area did not include Maleny.

### **Caloundra City Bicycle & Pedestrian Strategy (June 2004)**

The Strategy identifies a regional link from Bunya St across and following the northern side of the Obi Obi Creek through to Obi Obi Lane and Gardners Falls.



## **Caloundra City Recreational Links and Trails Strategy (2002)**

The Caloundra City Recreational Links and Trails Strategy was developed to guide the provision of recreational experiences on a wide range of non-motorised trails across the City. Seventy trails of varying local and regional significance were identified and listed for further consideration and assessment.

One of these trails was the construction of a 'Signature' trail along Obi Obi Creek to provide a link between Maleny and Baroon Pocket Dam. The trail is conceptual at present and will require additional open space acquisitions. The trail is intended for walkers. There is potential for the development of this trail as part of future land use options on the site.

### **Land Use:**

#### **Investigation of Farm Forestry Opportunities on Caloundra City Council Controlled Land (2005) (not endorsed by Council)**

This report arises from a request by Council to examine opportunities for establishment of farm forestry (or forest plantations) on certain Council land. The report includes estimates of establishment and maintenance costs and general financial returns from farm forestry activities. Other potential benefits include community involvement, research and development, educational opportunities, and biodiversity benefits.

The report identifies the Maleny Community Precinct site as suitable for plantation forestry and rehabilitation of riparian zones along Obi Obi Creek and gullies. Recommended species for farm forestry on the site included Silver Quandong, Silky Oak, White Cedar, White Beech and Silver Ash.

### **Infrastructure:**

#### **Upgrade of Maleny STP Report - John Wilson and Partners (work in progress)**

A report into the upgrade of the Maleny Sewerage Treatment Plant (STP), including additional information on the irrigation area, is currently being commissioned by CalAqua.

Effluent management options will be reviewed to ensure future license conditions are met.

#### **Maleny Integrated Water Management Plan (work in progress)**

The purpose of this report is to consider various options for Maleny's water supply including demand management, off stream/on stream storage,

pipeline from Landers Shute water treatment plant, rainwater tanks and recycling.

The analyses of various options are still being completed and are expected to be put to the community and Council in the near future.

### **Maleny Local Road Network Study (Jan 2006)**

The objectives of this project were to:

- Assess the performance of the local road network – key road links, intersections, car parking, pedestrians, cyclists, public transport, through traffic and trucks;
- Review the planning and operation of local road network – develop road hierarchy planning principles;
- Develop a strategy for local road network – balance emerging traffic needs with values of local residents, businesses and other agencies;
- Strategic analysis of impacts on the major road network – not site specific.

The Obi Obi Creek Bridge was identified as a possible long term (ie: 2016) road link, following further review of growths patterns and need.

This study didn't take into account possible alternative land use options on the Maleny Community Precinct site. The study may need to be reviewed depending on the type of uses proposed on the Maleny Community Precinct site, especially if residential or industrial uses are proposed.

### **Environmental Management Program - Maleny Water Pollution Control Works Effluent Irrigation (August 2005)**

The purpose of the Environmental Management Program (EMP) is to ensure that licence conditions for the carrying out of environmentally relevant activities in association with the Maleny Sewerage Treatment Plant are met (specifically conditions E4, E7, and E10 of SR316). A number of actions are proposed as follows:

Aim 1 – Increase wet weather storage and prevent runoff

- Action 1 – Create upper contour bank
- Action 2 – Create lower contour bank
- Action 3 – Prevent runoff and erosion

Aim 2 – Maximise assimilation, percolation and evapo-transpiration

- Action 1 – modify irrigation system layout
- Action 2 – Increase irrigation system flexibility
- Action 3 – introduce irrigation procedures
- Action 4 – continue regular slashing and baling of grass

Aim 3 – Environmental monitoring

- Action 1 – Monitoring of Obi Obi Creek Water quality
- Action 2 – Groundwater quality monitoring

### **EIS for the Land Disposal of Treated Wastewater from the Maleny WPCW (April 1994)**

The EIS was prepared to ensure the use of the land for land disposal of treated wastewater from the Maleny WPCW, minimised nutrient loading on Lake Baroon, given an increase in equivalent population from 1300 to 4000.

The report recommended the growing and harvesting of a total of 44ha of coppiced hedgerows of wet sclerophyll tree species (ie: flooded gum, swamp sheoak, black bean, lilly pilly and rose apple) and irrigated at a rate of 4mm/day for 290 days per year. The report indicated that even with this irrigation, the hydrological dynamics of the site will be back to the state existing before clearance and planting to pasture. It is noted that the site clearance and planting to pasture is believed to have increased water run-off by approximately 50% and doubled drainage.

The report also found the soils on the site to be well suited to the proposed irrigation methodology, with sufficient land with a slope less than 10% to enable 44 ha to be cultivated with minimal potential land degradation through surface water run-off.

The report also recommended the riparian vegetation on the Obi Obi Creek be increased to 40m using native species. This buffer has been provided around the current irrigation area of 6 ha.

The report recommended a buffer distance from effluent irrigation areas to rural residential dwellings of no less than 75m and low density dwellings of a distance no less than 500m.

### **Physical:**

#### **Visual Character and Regional Scenic Amenity Maps of Public Open Space in Caloundra (July 2006)**

This was one of a number of research projects undertaken as part of the Trees, Parks & Places Strategy to help define the community's aspirations and needs for Caloundra's open space network.

The report is based on a visual character survey undertaken between March-April 2006 and an Interim Study of Regional Scenic Amenity undertaken by Caloundra City Council in partnership with other SEQ Local Governments and Queensland Government agencies in 2004 (South East Queensland Regional Scenic Amenity Study 2004).

The final report for the project did not identify the Maleny Community Precinct site as an area having high scenic amenity and visual character, however the report does recommend that it would be appropriate to undertake detailed field studies and additional mapping work to verify results of the investigation.

### **Caloundra City Landslide Risk Assessment Study (Draft – not yet endorsed by Council) 2006**

This City-wide study was undertaken for disaster management and planning purposes. It is currently in Draft form. It identifies broad risk areas for landslides across the City and provides draft hazard mapping.

Due to a variety of factors such as soil types, geological conditions, rainfall and steep slopes landslide risk in the Maleny Plateau area is relatively high. The draft hazard mapping identifies some risk areas within the Maleny Community Precinct as shown on **Map 10**. The report notes that land falling within the hazard areas should not automatically be quarantined from development, rather its inclusion should trigger the requirement for a site specific geotechnical investigation/assessment.

The study identifies recommended risk reduction strategies across the City. Specific risk reduction strategies will need to be identified based on a site specific study and will depend on the land use/s ultimately proposed on the site.

### **Caloundra City Bushfire Management Strategy (February 2005)**

This City-wide study was undertaken for disaster management and planning purposes. It identifies potential hazard areas for bushfire across the City and provides draft hazard mapping. The hazard was analysed by integrating mapping of vegetation type, terrain, slope, and aspect.

The Maleny Community Precinct site contains relatively large areas of medium potential hazard. Small areas of high hazard are located along the vegetated banks of the Obi Obi Creek (refer **Map11**). It should be noted that although the property has been extensively cleared, pasture and grassland (even if grazed) can produce a bushfire hazard.

The site is located within 'Risk Area 1'. This area, which also contains the localities of Balmoral Ridge, Booroobin, Crohamhurst, Elaman creek, North Maleny, Witta and Wootha contains the greatest concentration of developed properties in medium and high hazard zones. The area is hilly and contains large areas of remnant forest with limited access routes and no access to reticulated water. Consequently, the area is identified as a priority for bushfire management activities.

A wide range of risk reduction strategies are identified in the report. Specific risk reduction strategies will need to be identified once land use/s proposed on the site are known.

### **Bushfire Management Report for Maleny Community Precinct (2003)**

This site specific report was completed by Frank Beattie OAM based on the previously proposed golf course, housing and community precinct concept for the site. The report contains the following recommendations:

- ▶ Adequate access for fire service vehicles including a primary route; for emergency vehicles to access the community centre;
- ▶ Access to the site should be provided from Landsborough Maleny Road;
- ▶ There is a need for a Helicopter site within the precinct;
- ▶ Water points need to be established and located along the creek;
- ▶ Dams and household rainwater tanks need to be made available to the fire service;
- ▶ The precinct should have town water as well as tank water;
- ▶ Hydrants positioned around the community centre should have booster pumps;
- ▶ A fire management plan should be put into place; and
- ▶ An evacuation plan is required for the community centre.

### **Flood Study and Stormwater Management Plan for Obi Obi Creek Catchment (October 2001)**

The principal objectives of this study were to:

- ▶ Assess the existing water quality and environmental conditions of waterways within the catchment;
- ▶ Determine peak flow rates and flood levels;
- ▶ Investigate stormwater infrastructure upgrades to mitigate flooding;
- ▶ Develop water quality controls and environmental management strategies;
- ▶ Perform a flood risk assessment for Maleny; and
- ▶ Cost any proposed stormwater management measures and determine an infrastructure works charge for proposed development.

The study comprises three volumes. Volume 1 describes the existing condition of the catchment and waterways. Volume 2 contains technical details about hydrological modelling undertaken as part of the study, and Volume 3 details proposed stormwater management options. The study makes frequent reference to the Lake Baroon Catchment Management Strategy.

### Existing Catchment Conditions

The Obi Obi Creek has its headwaters in the Conondale range and flows east through Maleny then north into Lake Baroon. Existing catchment conditions are described as follows:

- ▶ Flooding is generally not a problem in the catchment due to the steepness of the terrain with inundation occurring primarily in the vicinity of bridges and culverts;
- ▶ Only a small fraction of the piped stormwater system is under capacity, however a number of problem areas have been identified, primarily in Maleny township;
- ▶ The catchment contains numerous sensitive ecological sites and areas of high environmental value;
- ▶ Much of the catchment and riparian zone has been cleared, weed species dominate riparian zones;
- ▶ Waterways contain limited aquatic flora and fauna, however does support a number of endangered species such as the Mary River Cod;
- ▶ Waterways have adequate environmental flows;
- ▶ Water quality is heavily influenced by rural land use in the catchment
- ▶ Major sources of pollutants include fertilisers, pesticides and additional nutrients and faecal coliforms originating from dairy and non-dairy grazing; and
- ▶ Existing water quality monitoring is comprehensive and generally sufficient.

### Flood Hazard

Due to the steepness of the terrain, flooding is generally confined to within the banks of the Obi Obi Creek. However the flood modelling shows some areas of inundation in the south of the site. **Map 8** shows the calculated 2 year, 10 year and 100 year ARI flood affected areas for the site as well as the probable maximum flood. Velocities of floodwaters in the Creek are typically high, creating significant hazard.

### Management Options

The study identifies a number of recommended improvements to the local stormwater system including upgrades and drainage improvements in Maleny Township. The report also identifies environmental management options relating to water quality management. Key strategies include the construction of wetlands at key locations (including near the southern boundary of the site) and a Gross Pollutant Trap downstream of Maleny, and revegetation required along the majority of the Obi Obi and Walkers Creeks.

A stormwater management plan will need to be prepared for any development on the Maleny Community Precinct site. Management options and recommendations which should be considered include:

- ▶ Retention of vegetation, especially in riparian zones (at least 20m width)

- ▶ Revegetation of slopes and riparian zones with native species
- ▶ Implementation of sediment and erosion controls both during and post construction
- ▶ Incorporating water sensitive urban design in development
- ▶ Stormwater harvesting
- ▶ Construction of the wetland proposed in the report
- ▶ Implement best practice design for wastewater treatment
- ▶ Appropriate use of fertilisers, herbicides and pesticides

### **Caloundra City Landscape Assessment Planning Study (2001)**

This City-wide study was undertaken by Chenoweth consultants as a background planning study to inform the preparation of the Caloundra City Plan 2004. The assessment evaluates the landscape character, scenic quality and sensitivity of Caloundra City and provides general recommendations for the protection and enhancement of landscape features and elements.

The study identifies the landscape significance and significant contribution provided by the backdrop of open plateau and scenic rural lands to the character of the hinterland towns, including Maleny. The report makes the point that it is at the edges and interfaces between urban and non-urban uses where landscape management is most critical.

In areas such as Maleny Plateau, the following landscape values are identified as requiring protection:

- ▶ Rolling landform with lush green pasture, plantations, townships and rural residential housing on undulating roads that follow topography; and
- ▶ Multiple local view-sheds with opportunities for small pockets of development.

The landscape is sensitive to scale, form and pattern of development. Urban/suburban development and prominent fences/entry statements would be discordant as would straight 'improved' roads, large scale earthworks and sprawl and modernisation.

Recommendations include: subdivision only in large rural allotments, deep setbacks, tree retention, development conforming to landform, high proportion of open space, restriction of urban elements, entry statements and visual barriers (eg. tall fences), development (especially large 'discordant' industrial agri-business) is hidden from viewsheds of scenic drives, shelterbelts, controlled signature signage and control the scale of buildings.

In hinterland towns including Maleny Township, the following landscape values are identified as requiring protection:

- ▶ Clear visual access to Glasshouse backdrop; and
- ▶ Relatively low impact urban development interspersed with the visual relief of rural scenery.

The scale and charm of towns such as Maleny can be disrupted by modern shops, poor attempts at vernacular architecture, large scale buildings, urban street and road works and urban sprawl.

Recommendations include maintain the 'village' scale of buildings and roads, control signage, reinforce 'mainstreet' emphasis, maintain vistas to hills/escarpments, watercourses and vegetation and retain/enhance clear distinction between the edge of town and the natural/rural setting.

Due to the broad nature of this study, a site specific visual/landscape assessment should be undertaken for the Maleny Community Precinct.

### **Slope Stability and its Constraints on Closer Settlement on the Mapleton-Maleny Plateau, South East Queensland (February 1983)**

This study examined landslide activity on the Mapleton-Maleny Plateau to assess the dangers it presents for future closer settlement, and to provide recommendations to local authorities.

Landslides occur predominately in basaltic colluvial (hill slope) debris on benches on the upper flanks of the plateau and on colluvial aprons fanning out over the older rocks underlying the basalt. Numerous small landslides also occur in the mantle of soil and colluvium on the steep basaltic slopes. The prime cause of landslides appears to be the removal of forest over the last 80 years which has reduced mechanical support for the slopes and allowed groundwater pressures to rise to critical levels in the colluvium.

The study identifies 11 stability zones which have been devised by relating known landslide occurrences to combinations of topographic, geological and groundwater conditions. Recommendations on the suitability of the zones for closer settlement and precautions needed for subdivision and building within them are given.

The Maleny Community Precinct site is contained within the following zones (refer **Map 7**):

A2 – This zone covers the majority of the site. The zone comprises gently undulating to slightly hilly remnants of the plateau surface. Soils are deep but generally stable. Local areas of moderate to steep slopes (over 8 degrees), and seepage zones could cause instability. The zone is generally suitable for close urban settlement, although local moderate to steep slopes should be avoided.



A2 B2 – This zone covers the northern part of the site. The zone is a gradation between zones A2 and B2. The area is more hilly than A2 zone and is suitable for a mixture of closer settlement with less dense small acreage settlement with building sites chiefly on ridge crests. Moderate to steep slopes should be avoided for building. If used for roads or building, precautions such as minimising cut and fill, securing footings in weathered rock, and use of light, timber construction of stumps (as opposed to slab) should be considered. Building on seepage zones should be avoided.

Design of subdivision, methods of construction and wastewater disposal on slopes should be professionally examined.

D3 – this zone incorporates moderate to steep slopes (in general over 15 degrees) on the escarpment and adjacent to gullies such as Obi Obi Creek. Small landslides are frequent. The zone is considered generally unsuitable for closer subdivision and building. In addition no further clearing should occur in this zone.

The zones are regional scale and the study suggests that more detailed site specific study is required to establish local sub-zoning.

### **Environmental:**

#### **Caloundra City Greenhouse Action Plan (2005)**

The Caloundra City Greenhouse Action Plan (GAP) outlines the current involvement of Caloundra City Council in the Cities for Climate Protection™ (CCP™) program. The purpose of the report is to outline possible actions that can be undertaken by Council and the community to reduce our greenhouse gas pollution. Key reductions plans in areas such as building, transport, waste, street lighting, water/sewage and industry are outlined.

The GAP should be considered in planning for the Maleny Community Precinct site.

#### **Caloundra City Pest Management Plan 2005 – 2009 (Draft – not yet endorsed by Council)**

Under the Land Protection Act Council is required to ensure that declared pests are controlled within its area and on lands under its control. The Draft Local Government Area Pest Management Plan (LGAPMP) provides strategic direction for the management of pest plants and animals in Caloundra City. It covers a period of four years and is consistent with principles of pest management, state pest management strategies, guidelines for pest management, the Northern Sub-Region of Councils (NORSROC) Cooperative Pest Management Strategy and Caloundra City's community interests.

The draft pest management mission for Caloundra City is:

*A cooperative approach to effectively manage pests in order to prevent and/or minimise their negative environmental, economic and social impacts thereby contributing to sustainable natural resource management.*

In addition to setting desired outcomes for the strategic planning and management of pest species, the LGAPMP details priority pest plants and pest animals in Caloundra City, sets out strategic directions and details operational activity areas that all stakeholders should consider in their pest management processes and programs.

The LGAPMP applies to all lands and watercourses within the boundaries of Caloundra City, including land owned or controlled by individuals, industry and government. Targeted species are declared pests under the *Land Protection (Pest and Stock Route Management) Act 2002*, pests listed under other legislation and certain non-declared weeds and pest animals.

The plan contains information on priority pest species and suggested management and control strategies and actions.

The draft plan is in the process of being taken to Council for endorsement for community consultation. The plan should be considered in relation to the Maleny Community Precinct site.

### **Lake Baroon Catchment Management Strategy (1997)**

With a 61,000ML capacity, Lake Baroon is the major domestic water supply for Caloundra City and Maroochy Shire.

The Lake Baroon Catchment Management Strategy was produced in 1997 by the Lake Baroon Catchment Care Group and the Caloundra-Maroochy Water Supply Board. It consists of three volumes. The major aim of the strategy is to alleviate the frequency and severity of blue-green algae blooms and to improve the water quality in Lake Baroon and downstream. The study produces potential policies and strategies for ecologically sustainable development of the catchment.

The Obi Obi Creek is the largest sub-catchment for Lake Baroon. Rural and Urban activities in the catchment impact upon the quality of water entering the lake. The Obi Obi Creek is used for stock watering, irrigation, domestic and town water supplies. Future development has the potential to impact on ecological values and degrade the water quality in Obi Obi creek in a similar fashion to that which currently occurs. The strategy contains general information on the potential impacts on surface water from different types of land uses as summarised below.

*Urban* – A major concern with urban land uses is stormwater runoff which carries a variety of pollutants (including sediments, chemicals, oils, detergents, fertilisers etc) from urban areas. Impervious urban surfaces such as roads, pavements and buildings also increase flow potentially resulting in erosion and flooding. In Maleny stormwater generally leaves the township untreated and directly enters Obi Obi Creek.

*Rural residential* – in these areas wastewater is generally disposed of on-site. Improperly designed, located or maintained systems may release high nutrient levels, especially during wet periods. Pesticide and fertiliser use is also an issue.

*Industrial* – uncontrolled discharge is a primary concern. Pre-treatment of wastewater before it enters the sewerage system is required for some uses such as food outlets, automotive/engineering industries, dental/medical/veterinary surgeries and major industries. Environmental problems arise if this process is not performed adequately.

*Roads* – both sealed and unsealed roads contribute to sediment movement. Pollutants such as oils and petrol accumulate on roads and are washed into drains by runoff. Road construction, especially on steep land has the potential to create pollution problems if appropriate controls are not implemented.

*Horticulture* – the requirement for high fertiliser use contributes substantially to nutrient runoff. Decomposable organic matter (e.g. leaf litter) from crops is also a potential problem if large amounts enter waterways. Decreased ground cover increases runoff and may lead to erosion.

*Pastoral* – pollution from increasing sediments and nutrients arise from practices such as grazing, fertilisation and pesticides, erosion, dairy/stockyard wastes, and stock in watercourses, especially where activity is concentrated. Clearing of vegetation for agricultural activities increases erosion, runoff and sedimentation.

*Natural vegetation* – Natural vegetation stabilises banks and slopes reducing erosion, and provides a buffer to surface runoff. Runoff from natural vegetation contains nutrients and organic matter however these inputs are not significant enough to cause major problems. Nutrients are generally recycled.

The strategy details a comprehensive range of mitigation and management measures which can be put in place to reduce impacts on water quality of these and other land uses (See Volume 2). Such measures should be utilised for land uses on the Maleny Community Precinct in order to maintain and enhance the quality of water entering the Obi Obi Creek and Lake Baroon catchment. In particular, the criteria recommended in section 2.5 (New developments within the Catchment) of Volume 2 should be considered.

Water quality monitoring is undertaken throughout the Obi Obi Creek catchment. Samples are measured against water quality criteria/guidelines identified in the Strategy.

### **Heritage:**

#### **Maleny Community and Cultural Heritage Study (work in progress)**

The aim of the community and cultural planning study in Maleny is to prepare a long term strategy to decide the future direction of the hinterland town's community facilities.

The key issues to be addressed by the study include where and how existing community and cultural organisations should redevelop community facilities to meet future community needs and expectations.

The study aims to develop:

- ▶ A strategic vision that is innovative, sustainable and shared by the community that strengthens Maleny as a 'community and cultural hub';
- ▶ A strategic framework that provides guidance and direction to all relevant stakeholders to attain the vision endorsed by the community;
- ▶ A range of strategies and actions that provide a framework for private sectors and government sectors to work in collaboration;
- ▶ A Master Plan that is creative, inclusive and sustainable for the community that provides strong links and promotes excellence and diversity;
- ▶ A Master Plan that is responsive and reflective of the environmental assets and cultural heritage values of the region; and
- ▶ A Master Plan that promotes self sufficiency and sustainability.

A summary of reoccurring issues are listed below:

- ▶ Parking - the adequacy of parking in future planning was noted as a major issue.
- ▶ Strong support for the future Community Centre being retained in the CBA. Of the 106 responses, 7 respondents suggested that the land referred to as the 'Community Precinct' should be considered for development of community facilities.
- ▶ Strong support for the library to remain in its current location, no solution to expand as protecting open space was important.
- ▶ Retaining Bicentenary Park (as open space and park was strongly supported).

- ▶ Support for Barung Landcare to be relocated out of the CBA and Barung Nursery, Training and Administration facility to be kept as one.

The key directions gained through the consultation will be referred to the next phases of planning.

Key Directions:

- ▶ The provision of community and cultural facilities should be retained in the heart 'CBD' of Maleny.
- ▶ Maleny library should be retained in the present location and expanded if possible.
- ▶ Barung Land Care to be relocated from the CBA as a complete entity.
- ▶ Parking provision must be adequate for all future development.
- ▶ Co-location with commercial component should be further investigated with the Community Centre.
- ▶ Pedestrian linkages – Improved access to all community spaces need strengthening.
- ▶ Protection of Open Space/Parkland in Master Plan.

To progress the Study, a number of issues need further action prior to the preparation of a Master Plan for community comment and next phase of planning.

The findings of the Study will need to be considered through the Structure Planning Process.

### **Planning Scheme Review Interim Report – Cultural Heritage Issues (June 2001)**

This study was undertaken by Thom Blake as one of a series of studies and reports to assist in the review of the Caloundra City Planning Scheme. The report focuses on non-indigenous cultural heritage.

A schedule of sites meeting criteria based on the *Queensland Heritage Act 1992*, was produced and are now included in the new IPA Planning Scheme (Caloundra City Plan 2004). A number of sites in and around Maleny are listed in the Schedule. Porter's Wood located on Obi Lane directly to the east of the site boundary is identified as significant as a rare example of the vegetation which formerly covered the Blackall Ranges.

The study noted that the schedule would require updating, for example as places with potential significance were further assessed.

### **Other Studies/Reports:**

There are a number of other studies and reports which may need to be referred to throughout the Structure Planning process. These include:

#### **Maleny Main Street Master Plan (November 2001)**

The Maleny Main Street Master Plan seeks to reinforce and enhance the active and vibrant sense of community and "village" qualities of Maleny through a community based design process. Developed in close consultation with the community, the plan is intended to guide future budgeting and works and assist in assessment of development applications.

The Plan focuses on an improved human environment which allows for more convenient access and pedestrian movement, social interaction, community expression, economic development, recognition of heritage and exhibition of local creativity. A variety of issues were considered in developing the Master Plan including traffic, parking, pedestrian linkages, built form, crossings, community spaces, planting, street furniture, footpath treatments, artworks, petrol bowsers, signage, entry statements, and underground power.

#### **Public Art Strategy (October 2000)**

This Strategy was developed to formalise, support and nurture the City's public art activities. It covers identification of opportunities, commissioning and management of public art. The Strategy considers a range of types of public art including art in public places, integrated art and community art.

The Strategy contains the following vision:

"Art Works: Caloundra's Public Art Strategy" demonstrates the City of Caloundra's recognition that artistic expression has an important roll to play in the public realm.

The Strategy should provide a basis for commissioning a wide range of artists to create artwork in public places that will delight, amuse, and intrigue residents and visitors to the region.

The selection of public art should focus on work that reflects and references the regional environment, lifestyle and people.

Public art in Caloundra should reflect the creativity and aesthetic standards of the community, enhance and give meaning to the City's public realm, and contribute to a civic sense of pride.

Opportunities to include a variety of public art in line with the strategy should be considered in the context of the Maleny Community Precinct.

## **Draft Caloundra City Plan – Key Issues Reports**

A number of Key Issues Reports were prepared by the Environment and Planning Policy Unit in response to submissions received during public notification of the Draft Caloundra City Plan in 2003.

Under the Draft Plan the Maleny Community Precinct site was contained in the Rural and Open Space - Sport and Recreation Precincts. A note identifying that the Plan may be subject to amendment following the finalisation of investigations into the site was included in the Maleny Plateau Planning Area Code.

Several submissions outlining a diverse range of views were received in relation to the Maleny Community Precinct, and the draft provisions applying to the site. Key issues raised by submitters included:

- ▶ Desire for inclusion of specific provisions to facilitate the Maleny Community Precinct
- ▶ Concern with the proposed Maleny Community Precinct
- ▶ Desire to ensure the Maleny Community Precinct allows for community input and adequate consideration of all planning issues

A Key Issues report was compiled to address the submissions. The report recommended no change to the draft provisions applicable to the site because investigations into appropriate uses for the site had not been completed.

A number of other Key Issues Reports were compiled responding to issues raised in submissions relating to Maleny. They include the following recommendations/conclusions:

- ▶ Further investigation as to an appropriate industrial site within the Maleny Township/Maleny Plateau is undertaken
- ▶ Amendments to the draft City Plan are made to ensure the village character of Maleny is retained in the business centre.

## **Maleny Showgrounds Master Plan (not yet endorsed by Council)**

The purpose of this plan is to provide a guide for future development within the Showgrounds taking into consideration the existing and future requirements of the area.

The Master Plan proposes that the soccer/football fields, cricket pitch and equestrian area be drained, levelled and grassed. The existing cricket field, croquet field and tennis courts are to be maintained with adjacent areas designated for future expansion. The Master Plan also proposes:

- ▶ Extension of the Arts and Craft Building;

- ▶ Extension of Maleny Players building to include toilet and theatre facilities;
- ▶ Proposed extension to Show Society building to include shared clubrooms for croquet and cricket;
- ▶ Two storey addition to the pavilion to include a National Fitness Centre;
- ▶ Soccer and Pony Club building upgraded;
- ▶ Tennis club extension;
- ▶ Future club cricket rooms; and
- ▶ Future open sided shed for equestrian events.



## 10 Bibliography

The following Policies, Strategies and Studies have been referenced in the Background Report for the Maleny Community Precinct Project.

### **Caloundra City Council Policies and Strategies**

Caloundra City Council, 2006, *Caloundra City Corporate Plan 2006 – 2011*

Caloundra City Council, 2004, *Caloundra City Plan 2004*

Caloundra City Council Community Lifestyle Policy Unit, 2004, *Social Policy and Strategy for Caloundra City*, Caloundra City Council.

Caloundra City Council Community Lifestyle Policy Unit, 2004, *Recreation Policy and Strategy*, Caloundra City Council.

Caloundra City Council Environment and Planning Policy Unit, 2006, *Biodiversity Strategy*, Caloundra City Council, Caloundra.

Caloundra City Council, 2004, *Caloundra City Bicycle & Pedestrian Strategy June 2004*

Caloundra City Council, 2000, *Maleny & Environs Local Area Plan*

Econnect Communication & Rob Friend & Associates, 2002, *Caloundra City Recreational Links and Trails Strategy*.

### **Previous Studies**

Adam Pekol Consulting, 2006, *Maleny Local Road Network Study*

Beattie, F. OAM, date unknown, *Bushfire Management Report for Maleny Community Precinct*

Brecknock Consulting P/L, 2000, *Art Works: Caloundra's Public Art Strategy October 2000*

Caloundra City Council, 2005, *Environmental Management Program - Maleny Water Pollution Control Works Effluent Irrigation August 2005*

Caloundra City Council, 2001, *Maleny Main Street Masterplan*

Caloundra City Council Community Lifestyle Policy Unit, 2006, *Caloundra City Open Space Strategy (Draft) – currently being finalised*

Caloundra City Council Community Lifestyle Policy Unit, 2006, *Maleny Community and Cultural Heritage Study* – work in progress.

Caloundra City Council Community Lifestyle Policy Unit, 2006, *Draft Open Space Strategy – Maleny and Maleny Plateau Planning Area Assessment*

Caloundra City Council Community Lifestyle Policy Unit, 2006, *Visual Character and Regional Scenic Amenity Maps of Public Open Space in Caloundra* – part of Trees, Parks Places Project

Caloundra City Council Environment and Planning Policy Unit, 2003, *Caloundra City Plan – Key Issues Reports*, prepared in response to submissions received during the public notification of the Draft Caloundra City Plan 2004

Caloundra City Council Environment, Landscape and Recreation Unit, 2005, *Caloundra City Pest Management Plan 2005 – 2009 (Draft not endorsed by Council)*

Caloundra City Council Environment, Landscape and Recreation Unit Design Team, 2005, *Cultural Mapping Project – Maleny*

Caloundra City Council Infrastructure Policy Unit, 2006, *Maleny Integrated Water Management Plan* – work in progress.

Caloundra City Council Infrastructure Policy Unit, 2004, *Caloundra City Bicycle and Pedestrian Strategy*

Charles-Edwards, D., 1994, *Environmental Impact Statement for the Land Disposal of Treated Wastewater from the Maleny WPCW*

Chenoweth Environmental Planning & Landscape Architecture, 2001, *Caloundra City Landscape Assessment Planning Study*, Chenoweth, Brisbane.

Clouston, 1999, *Caloundra Open Space Plan*, Clouston, Townsville

Gutteridge Haskins & Davey Pty Ltd, 2001, *Flood Study and Stormwater Management Plan for Obi Obi Creek Catchment, Volumes 1 – 3*, Gutteridge Haskins & Davey Pty Ltd, Brisbane, Queensland.

Institute for International Development, 2006, *Caloundra City Landslide Risk Assessment Study (Draft)*, Institute for International Development, Adelaide, South Australia. – not endorsed by Council

John Wilson & Partners, *Upgrade of Maleny Sewerage Treatment Plant Report* – work in progress

Lake Baroon Catchment Care Group Inc & Caloundra – Maroochy Water Supply Board, 1997, *Lake Baroon Catchment Management Strategy Volumes 1 – 3*, Caloundra - Maroochy Water Supply Board, Nambour, Queensland.

Landmarc Land and Disaster Management Resource Centre, 2005, *Caloundra City Bushfire Management Strategy – Final Report*, Landmarc Pty Ltd, Ferny Hills, Queensland.

Queensland Department of Natural Resources, Mines and Water, 2006, *Water Resource (Mary Basin) Plan*

Stratcorp Consulting Pty Ltd, 2005, *Aquatic Facilities Needs Study Final Report October 2005*, Stratcorp Consulting Pty Ltd, Brisbane.

Stratcorp Consulting Pty Ltd, 2005, *Hinterland Recreation Study*, Stratcorp Consulting Pty Ltd, Brisbane.

Thom Blake, 2001, *Caloundra City Council Planning Scheme Review Interim Report – Cultural Heritage Issues*

Transplan Pty Ltd & Mike Halliburton Associates, 2006, *Caloundra Recreational Trails Master Plan*

Willmott, W.F., February 1983, *Slope Stability and its Constraints on Closer Settlement on the Mapleton-Maleny Plateau, South East Queensland*

Author unknown, date unknown, *Maleny Showgrounds Master Plan*

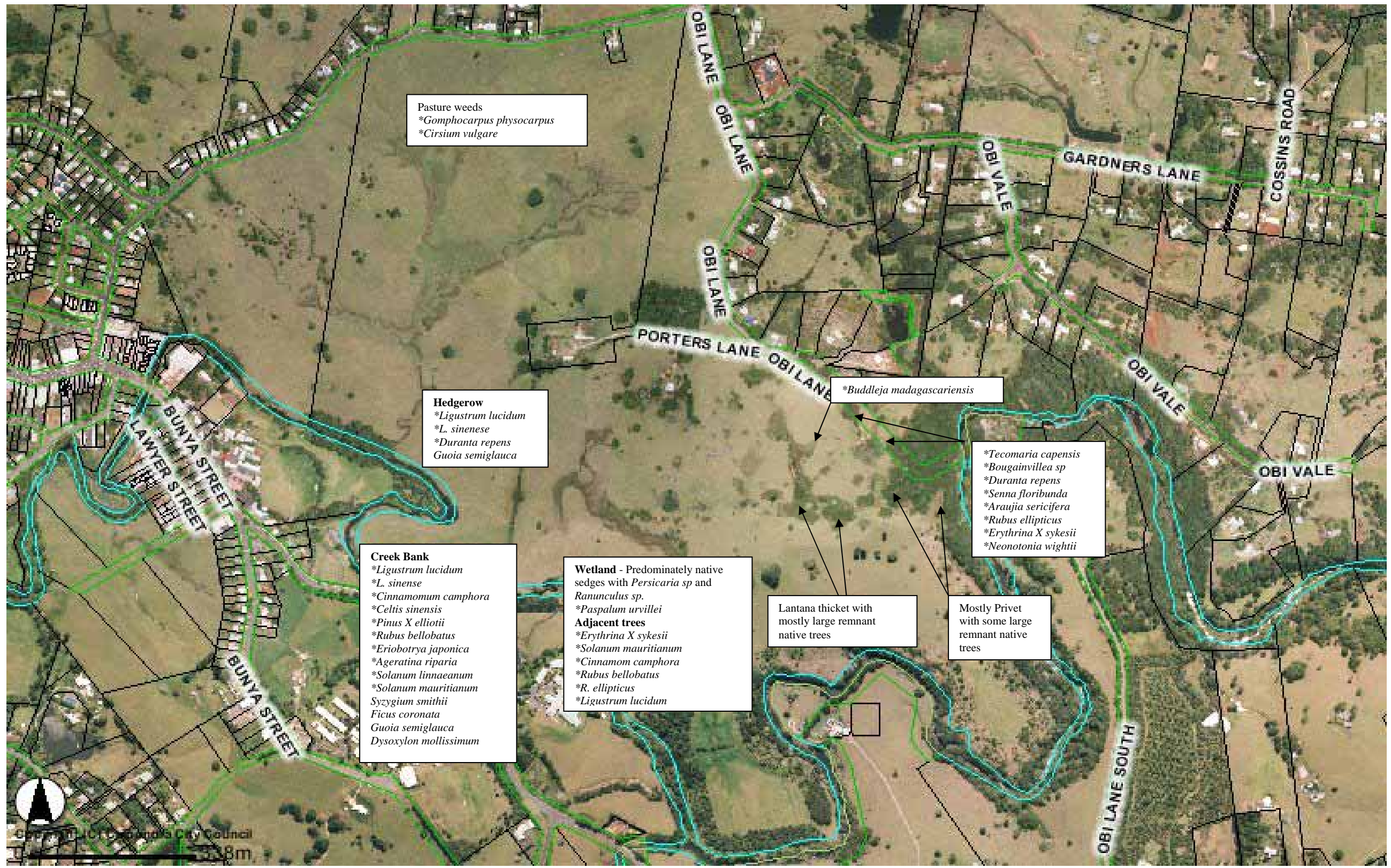
### **Other relevant studies**

Ernst & Young, 2003, *Feasibility Assessment Final Report Maleny Residential and Golf Development May 2003*, Ernst & Young Australia

## 11 Maps

- Map 1: Site Details (in report)
- Map 2: Surrounding Land Uses
- Map 3: Caloundra City Plan Precincts
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- Map 5: Good Quality Agricultural Land
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## 12 APPENDICES



APPENDIX 1