

Project: *Kalimna*

Principal:

Neumann Group

Consultant:

Bradlees Consulting

Location:

Tallebudgera, Qld



Introduction

The Kalimna Estate is a 32-hectare rehabilitation development of the old Tallebudgera quarry.

The planning and design of the development area had to respond to the overriding criteria of a positive environmental solution. The quarry had to be re-contoured to eliminate steep gradients and the inner quarry face, while retaining as much existing vegetation as practicable and providing a landscaping framework for residential development.

The design provides for three passive and active recreation areas for residents. Environmental conservation and visual screening were a strong element in the landscape redevelopment design.

The estate allocated 8.4 hectares for open space which is well in excess of the normal contribution at 27%. The open space and buffer planting will maintain the quality of birdlife habitat and provide visual screening to the east, north and west of the development, while the western park area is regarded as an environmental protection zone.

The Southern Tallebudgera Creek Park of (1.7 ha) is located at the Andrews Road end of the development. It should be noted that an old cattle dip in this area has been completely remediated and is now the bitumen carpark area of the park. This landscaped area also provides an attractive area for active and passive recreation along the Tallebudgera creek bank.



Project: *Kalimna, cont.*

Scope of Work:

The scope of work included:

Major Earthworks

- ◆ More than 190,000m³ of earth was moved around the site;
- ◆ D9 dozers, excavators, trucks and a scraper fleet reshaped the quarry to an undulating hillside parkland estate;
- ◆ Landscaping works restored the natural balance with the neighbouring woodland areas.

Subdivision Works

- ◆ Rural roads, pavements and intersections to council regulated standards;
- ◆ Water main repositioned for reticulation to the estate without major disruption to the Tallebudgera Valley water supply running off the same main;
- ◆ Stormwater runoff minimised through overland flow and treatment before returning to the natural cycle in Tallebudgera Creek.

Challenges

Some of the challenges faced on this project were;

- ◆ Re-contouring steep quarry walls while retaining as much existing vegetation as practicable;
- ◆ Preserving the remainder of the western boundary, made up of partially disturbed subtropical rainforest; and the northern boundary which was Blackbutt dominated woodland;
- ◆ Returning a heavily excavated quarry site to a natural bushland state while providing a landscaping framework for residential development.

Innovation

Kalimna's residential bushland setting was achieved through innovations such as;

- ◆ A variety of rare and endangered species of tree were propagated by a local nursery and transferred to the site;
- ◆ Part of the neighbouring property was negotiated to ensure the estate provided the excessive buffer zones for the revegetation program and the large open space areas for community recreation;
- ◆ Enhanced stormwater management controls as the implementation of vegetated areas minimised the impact on downstream nutrient levels
- ◆ Smart use of rock-lined and vegetated/naturalised channels which helped slow concentrated stormwater flow and allow for nutrient stripping.

Outcome

The challenge of this development was to completely rehabilitate the site from its harsh quarry environment to a park residential estate with an aesthetically attractive landscape in the Tallebudgera Valley. Neumann Contractors consider this environmentally friendly estate a success and the response from the public confirms this with all of the lots purchased shortly after release. A great deal of interest was generated in this development and that was largely due to its maintaining a semi-rural lifestyle while still in close proximity to beaches, schools and major shopping centres

