

PLANNING AND ENVIRONMENT COURT OF QUEENSLAND

CITATION: *Boral Resources (Qld) Pty Ltd v Gold Coast City Council*
[2017] QPEC 23

PARTIES: **BORAL RESOURCES (QLD) PTY LTD (ACN 009 671 809)**
(appellant)
v
GOLD COAST CITY COUNCIL
(respondent)

FILE NO/S: 3084/2014

DIVISION: Planning and Environment Court, Brisbane

PROCEEDING: Hearing of appeal

DELIVERED ON: 4 May 2017

DELIVERED AT: Brisbane

HEARING DATE: 17 October 2016 – 25 November 2016, 30 January – 3 February 2017 and 22 – 23 February 2017.

JUDGE: RS Jones DCJ

ORDER: **1. The appeal is dismissed.**
2. If necessary I will hear from the parties as to any consequential orders.

CATCHWORDS: APPEAL AGAINST REFUSAL OF DEVELOPMENT APPLICATION – appeal against a refusal by the respondent of a development permit for a quarry in the Gold Coast hinterland – where proposed development involved development of a large hard rock quarry – where subject land had been identified for quarrying purposes under a number of State planning documents – where subject land declared a key resource area under State planning policies – where at the time the development application was lodged the respondent’s 2003 town planning scheme was in force – where under that planning scheme the subject land was subject to various designations – part Urban Residential Land Use Theme; part Park Living Land Use Theme – part Open Space/Nature Conservation Land Use Theme – where under the relevant Structure Plan Area the subject land located partly in Urban Residential Precinct, part Park Living Precinct and part Open Space/Nature Conservation Precinct – where under respondent’s 2016 planning scheme subject land

subject to numerous designations.

WHERE DEVELOPMENT RAISED NUMEROUS ISSUES – traffic – dust – noise – blasting vibration – geology – air quality – traffic – ecological/environmental issues – economic and community need and town planning.

CONFLICT WITH PLANNING SCHEME – where proposed development said to be in conflict with respondent’s planning schemes.

NEED – where evidence that there was a need for subject development – whether that need could be satisfied by existing and/or other quarries sources – whether in circumstances where there was conflict with the planning scheme sufficient grounds existed to warrant approval notwithstanding conflict.

Environmental Protection Act 1994 (Cth)

Environmental Protection and Biodiversity Conservation Act 1999 (Cth)

Integrated Planning Act 1997 (Qld)

Local Government (Planning and Environment) Act 1990 (Qld)

State Development & Public Works Organisation Act 1971 (Qld)

Statutory Instruments Act 1992 (Qld)

Sustainable Planning Act 2009 (Qld)

Water Act 2000 (Qld)

Alcan (NT) Alumina Pty Ltd v Commissioner of Territory Revenue (Northern Territory) (2009) 239 CLR 27

Australian Capital Holdings Pty Ltd v Mackay City Council & Ors [2008] QCA 157

Elan Capital Corporation Pty Ltd & Anor v Brisbane City Council & Ors [1990] QPLR 209

Grosser v Council of the City of Gold Coast [2001] QCA 423

Holts Hill Quarries Pty Ltd v Gold Coast City Council [1999] QPELR 415

Isgro v Gold Coast City Council [2003] QPELR 414

Leda Holdings Pty Ltd v Caboolture Shire Council (2006) QCA 271

Lockyer Valley Regional Council v Westlink Pty Ltd (2011) 185 LGERA 63

Mackay v Dick (1881) 6 App Cas 251

Meridien AB Pty Ltd v Jackson [2013] QCA 121

Neilsens Quality Gravels Pty Ltd v Brisbane City Council
[2006] QPELR 709

Newing v Silcock [2010] QPELR 692

*Parklands Blue Metal Pty Ltd v Sunshine Coast Regional
Council* [201] QPELR 479

Prime Group Properties Ltd v Caloundra City Council & Ors
(1995) QPLR 147

Quinn Villages Pty Ltd v Mulherin (2006) QCA 433

Savage v Cairns Regional Council (2016) 214 LGERA 192

Sellars Holdings Ltd v Pine Rivers Shire Council [1988]
QPLR 12

Watts & Hughes Pty Ltd v Brisbane City Council 1998]
QPELR 273

Weightman v Gold Coast City Council [2003] 2 Qd R 441

Woolworths Ltd v Maryborough City Council (No 2) [2006] 1
Qd R 273

Yu Feng Pty Ltd v Brisbane City Council (2007) 156 LGERA
399

Zappala Family Co Pty Ltd v Brisbane City Council (2014)
201 LGERA 82

COUNSEL: Mr D Gore QC with Mr J Lyons for the appellant
Mr R Litster QC with Mr S Fynes-Clinton for the respondent

SOLICITORS: Hopgood Ganim for the appellant
McCullough Robertson for the respondent

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- [1] This proceeding is concerned with an appeal against the respondent's decision to refuse the appellant's development application for the establishment of a quarry at Burleigh. For the reasons set out below the orders of the court are:
1. The appeal is dismissed.
 2. If necessary I will hear from the parties as to any consequential orders.

The parties to the proceeding

- [2] Initially, a number of parties elected to become co-respondents in the proceeding, all of whom were opposed to the proposal. These included Stop the Gold Coast Quarry Association Inc., Mr I Kennedy, Hammercall Pty Ltd and Gwinganna Lifestyle Retreat and Spa Pty Ltd.
- [3] Mr Kennedy and Gwinganna Lifestyle Retreat and Spa withdrew as parties. Following other court proceedings which it is not necessary to dwell on here, Hammercall Pty Ltd also withdrew. Following opening addresses by Mr Gore QC for the appellant and Mr Litster QC for the respondent, Mr Knox, the solicitor for Stop the Gold Coast Quarry Association, sought leave for that association to withdraw. After hearing submissions leave was granted.

Location of the site

- [4] The subject land is described as lot 105 on SP 144 215 and comprises an area of 216.7 ha. The land is bisected by lot 901 on RP 907 357. Lot 901 is a reserve (fire track) administered by the respondent and runs through the western portion of the land between Tallebudgera creek road and Barden Ridge Road to the west.¹ Of the 216.7 ha, the area of land which would be the subject of actual quarrying and associated infrastructure activities is approximately 65 ha, representing approximately 30 per cent of the land. The balance of the land would be used for buffering purposes and the quarrying activities will not interfere with the reserve contained in lot 901. The land is located west of Palm Beach and west of the Pacific Motorway in the Tallebudgera/Tallebudgera Valley/Reedy Creek area.²
- [5] While, broadly speaking, the land is heavily vegetated with regrowth, it has been the subject of significant man-made disturbance including that of illegal four-wheel-

¹ See generally Exhibit 1 p 17.

² Ibid p 6.

drive activity. Not surprisingly, given its location, the land is, to a significant extent, surrounded by residential development. These developments include more conventional lot sized subdivisions at Kingsmore Estate, Stocklands Observatory Estate, Old Burleigh Town and larger rural residential lots in the Tallebudgera Creek area. To the east of the land and the Pacific Motorway is an existing quarry also owned and operated by the appellant, a waste management site and to the north-east an industrial area.³

- [6] The topography varies with levels ranging from RL 10m AHD to RL 150m AHD. The primary frontage is to Old Coach Road which is:
- (a) A council-owned arterial road; and
 - (b) A Key Resource Area (Transport Route).

The secondary frontage is to Tallebudgera Creek Road which is a classified scenic tourist route.

- [7] The land is currently vacant but in the past had been subject to a number of historic rural uses including grazing and a nursery. By the early 1970s it had been cleared⁴ but is now extensively covered by mature regrowth.⁵
- [8] Of particular significance is that the land is traversed by a prominent ridgeline that extends from the Springbrook Range to Burleigh Heads. This ridge is a significant landform feature in the local context. Three secondary ridgelines also transect the land and it is also intersected by a number of waterways and at least two watercourses as defined by the *Water Act* 2000.
- [9] The locality was described by the town planners relied on by the parties, Mr Schneider for the appellant and Mr Buckley for the respondent, in the following terms:⁶

“The locality is set amongst vegetated foot hills and the ridges of the hinterland and is characterised by a mosaic of land uses amongst fragmented patches of vegetation and open space.

The mosaic of established land uses in the immediate vicinity of the site comprises:

³ Ibid pp 6, 7, 8 and 11.

⁴ Ibid p 30.

⁵ Ibid p 13.

⁶ Exhibit 29A Town Planner’s joint expert report (JER) Part 1 at p 13.

- (a) Urban residential development;
- (b) Major residential communities...;
- (c) Educational facilities;
- (d) Rural residential development;
- (e) Small-scale industrial activities;
- (f) A convenience-based retail centre together with a number of small-scale retail businesses;
- (g) Some areas of rural residential development;
- (h) Vacant land; and
- (i) Patches of open space.

In addition, at a broader scale, the areas of Reedy Creek, Tallebudgera Valley and West Burleigh are characterised by the presence of:

- (a) Pockets of low density residential development amongst patches of open space
- (b) Established rural residential areas...;
- (c) Rural activities throughout Tallebudgera Valley;
- (d) The established industrial area of West Burleigh;
- (e) The existing West Burleigh quarry;
- (f) The former quarry now used as the Reedy Creek Recycling Centre.

The presence of the Pacific Motorway and related service roads, access ramps and interchanges also affects the character of the locality. ...”

[10] I consider that to be, broadly speaking, an accurate description. However, the locality west of the highway has a more residential feel or character than that immediately to the east.

[11] Before preceding further, I should deal with the participation in the joint expert report (JER) preparation by Mr Brown. Mr Brown was the town planner retained by the Stop The Gold Coast Quarry Association, the first co-respondent by election. Notwithstanding the application to withdraw from the proceeding, that association sought to have me receive the town planning evidence of Mr Brown to support the respondent’s opposition to the quarry. After hearing submissions by Mr Gore and Mr Litster I ruled that I would not receive any town planning evidence from Mr Brown and, insofar as the joint town planning reports were concerned they should be read as expressing the opinions and conclusions of Mr Schneider and Mr Buckley only. That is, Mr Brown’s contribution to those reports was ignored, save

for where Mr Buckley agreed with and adopted his observations and/or opinions.⁷ That approach was agreed to by both Mr Gore and Mr Litster.

The proposal

- [12] Numerous aspects of the proposed development are discussed in detail when addressing the evidence of the expert witnesses relied on by the parties. However, for introductory purposes the following description is sufficient. The disturbance footprint will comprise an area of approximately 65 ha and be surrounded by a vegetated buffer of approximately 152 ha.⁸
- [13] The expected life of the quarry is at least 40 years and could extend beyond 60 years depending on demand. The extracted material is hard rock known as meta-greywacke. It is intended that the proposed quarry would replace the existing quarry owned and operated by the appellant which has a current expected operational life of less than 10 years. According to Mr Cooper, general manager of capital projects and project sponsor of Boral Australia,⁹ the life of this quarry could be as low as six years.
- [14] Current material available for quarrying at the West Burleigh Quarry is estimated at about 7.5 Mt.¹⁰ While at periods of peak demand (e.g. 2008), extraction may have approached 1.9 Mt p.a., more typically extraction rates were in the order of 1 Mt p.a. to 1.4 Mt p.a.¹¹ and as low as about 0.96 Mt p.a. in 2015/2016. The proposed quarry envisages 2 Mt p.a. but it was accepted that actual output was very much demand driven.
- [15] Access to and from the quarry will be via Old Coach Road which, while a designated haulage route, would require extensive upgrading to accommodate heavy haulage vehicles. The quarry will not be connected to the respondent's trunk water, sewerage or storm water infrastructure. During the establishment and construction phases the proposed quarry would generate a total of 246 full-time equivalent positions and, once developed and operational, 24 full time equivalent person positions.

⁷ T30-78 ll 17-45.

⁸ Exhibit 1 pp 3 and 15.

⁹ Exhibit 118, para 32.

¹⁰ E.g. Exhibit 6 V7, p 3933.

¹¹ Exhibit 25, p 60.

[16] In a report prepared by Lambert and Rehbein, the operational processes were described in the following terms:¹²

“Overall, the proposed Gold Coast Quarry’s processing plants and supporting heavy mobile equipment (HME) will comprise:

Mobile crushing plants

...

Fixed plant

...

Mobile fleet

...

There will be a range of equipment on the site for various periods of time. This equipment includes, amongst others, the following:

- Excavators;
- Graders;
- Front-end loaders;
- Bulldozers;
- Compactors;
- Articulated dump trucks;
- Water trucks;
- Haulage trucks; and
- Cranes.

The quarrying process commences with a survey of the rock face and bench to be developed (by drilling and blasting)...

Once the rock has been blasted, fragmented rock will be loaded from the pit floor onto haul trucks, whereas any larger rock fragments (“oversize”) will typically be broken by a rock breaker before loading. The load and haul fleet will generally be operated continuously during the operating hours of the quarry, in order to maintain continuity of supply for processing.

The primary stage of processing involves the use of a jaw crusher and vibratory screens, with crushed product being held in an interim stockpile called a ‘surge pile’. From this stage, material will be conveyed to several downstream stages of crushing and screening equipment. After processing, the material will be conveyed to individual product stockpiles. The processing plant, including primary and secondary crushers (and screening to separate dust and aggregates) will be located within the plant and infrastructure area, near the individual product stockpiles.

The quarry materials are then either loaded directly by front-end loader... from the stockpiles, or via overhead storage bins at the plant... to road haulage trucks. The road haulage trucks then proceed

¹² Exhibit 6 V3, pp B1327-1328.

across the weighbridge and through the wheel wash before exiting the site to deliver quarry materials to the market.”

- [17] The quarried material would be used to manufacture concrete, asphalt, drainage material, road base, bricks, pavers and other products for use in the building and construction industries. A significant proportion would be used by other Boral assets including the manufacturing of asphalt and concrete. More will be said about these matters when addressing the question of the “need” for the quarry.
- [18] The proposal would evolve over four distinct stages: Establishment, Construction, Development and Operation (described in various reports as phases E, C, D and Q). Some of the details associated with the establishment, construction and development phases are set out in the Lambert and Rehbein report but it is unnecessary for the purposes of this proceeding to deal with them in any detail except when dealing with the issues in dispute.¹³ Of particular significance though are the phases associated with the actual quarrying operations. Over the likely life of the quarry, approximately 40 to 60 years plus, it will involve a number of benches¹⁴ excavated from at or about natural ground level to a depth of –RL 66M.¹⁵
- [19] The life of the proposed quarry is a function of its estimated approved recoverable resource of 79 Mt.¹⁶ The reference to 79 Mt of “resource” needs to be treated with a degree of caution as it includes some 13 Mt – 14 Mt of overburden,¹⁷ the value of which was very much dependent on market circumstances.
- [20] Evidence of Mr Norling, the economist relied on by the appellant which I accept, indicates that on average, demand from the quarry would grow from about 1.33 Mt p.a. in 2026 to about 1.5 p.a. in 2031.¹⁸ With projected population growth, output at or about 1.9 Mt p.a. might be reached.¹⁹ His uncontradicted evidence was that, even ignoring any multiplier effects, the value of the resources in 2016 dollar terms was in the order of \$1.4 - \$1.5 billion, a matter emphasised by Mr Gore in his final submissions.²⁰

¹³ Exhibit 6 V3 pp B1330-1340.

¹⁴ Shown conceptually in Exhibit 6 V4 p B2373.

¹⁵ Exhibit 6 V3 p B1339.

¹⁶ Exhibit 25, p 60.

¹⁷ Exhibit 6, V2, pp 737-741: V3 pp 1338-1340.

¹⁸ Exhibit 25, p 4, Table 14: Exhibit 167.

¹⁹ T25-47-48, ll 17-20 per Mr Norling.

²⁰ T34-62, L 25; see also T26-42 ll 22-27.

[21] The quarrying phases are described as phases Q1, Q2, Q3, Q4 and Q5. For approximately the first 25 years of quarrying they will be significantly screened from view by a series of ridgelines described as R3, J, J4, K and I.²¹ However, at or about the 25 to 30 year mark through to the end of the quarry life (phases Q3-Q5) the quarry benches will become more exposed as the ridge lines J and J4 are quarried. A material part of ridges J4 and K will be levelled much earlier during the establishment and construction phases.²² The significance of this is discussed in more detail below when dealing with the issue of visual amenity.

[22] During the establishment, development and construction phases work would be conducted on site as follows:

- Access (excluding maintenance) 6.00am to 6.00pm Monday-Saturday
- Construction activities and site works 6.30am to 6.00pm Monday-Saturday
- Sales and dispatch 6.30am to 6.00pm Monday to Saturday
- Mobile crushing and screening 7.00am to 6.00pm Monday to Saturday
- Maintenance 24 hours Monday to Saturday and 8.00am to 6.00pm Sundays
- Blasting 9.00am to 5.00pm Monday to Friday.

During the quarrying phases the operational hours will be:

- Access (general operations) 6.00am to 6.00pm Monday to Saturday
- Extraction 6.30am to 6.00pm Monday to Saturday
- Crushing and screening 6.30am to 6.00pm Monday to Saturday
- Sales and dispatch 6.30am to 6.00pm Monday to Saturday
- Maintenance 24 hours Monday to Saturday and 8.00am to 6.00pm Saturdays
- Blasting 9.00am to 5.00pm Monday to Friday.

[23] Blasting for quarrying purposes (i.e. phases Q1 to the end of Q5) would occur, save perhaps for exceptional circumstances, once a week and at a set time to establish a set routine or pattern for those who might in some way be affected by the blasting.²³ During the establishment and construction phase this blasting would occur as and when required (i.e. irregularly) however the size of the blasts would be materially smaller and of a shorter duration.²⁴

²¹ See Exhibit 1 P9.

²² E.g. see Exhibit 64, p 2.

²³ T6-33, L 25-37.

²⁴ T6-25, L 32-45.

The planning and development history to date

- [24] The land has been identified as a Key Resource Area (“KRA”) for a long time. Old Coach Road has also been identified as a haulage route. The appellant has already gained a number of approvals relevant to the development of a quarry and, for all intents and purposes, approval from the respondent is the final step in the approval process.
- [25] On or about 1 December 2010, the appellant referred the project to the Commonwealth Minister for the Environment for a “Controlled Action” decision under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth). On 23 January 2014, the Minister for the Environment issued his approval subject to conditions.²⁵ The proposed quarry was declared a Significant Project (now called a Coordinated Project) and was the subject of a comprehensive environmental impact assessment between 27 August 2010 and 20 December 2013. On 20 December 2013, the Coordinator-General for the state of Queensland issued his evaluation report recommending that the development proceed subject to conditions.²⁶
- [26] On 9 May 2014, the appellant submitted an application for an Environmental Authority for prescribed Environmentally Relevant Activities to the Department of Environment and Heritage Protection (“DEHP”). On 16 July 2014 the DEHP approved the application and issued an Environmental Authority on 16 July 2014 subject to conditions.²⁷
- [27] According to the appellant:²⁸
- “The fact that these other approvals were granted after substantive assessment processes is not determinative... but is a relevant factor and would give the court both comfort and context. This is particularly so given that the outcome of these application processes is that conditions have been imposed to mitigate the effects of the quarry and must be complied with if the quarry project is approved by the court...”
- [28] That these approvals exist and the extent of the scrutiny involved is relevant and does provide meaningful support for the proposal. In this context, it is significant

²⁵ Exhibit 7, Tab 3.

²⁶ Exhibit 5, V 8, Tab 13.

²⁷ Exhibit 8, V 6, Tab 3.

²⁸ Written submissions, p 5, [8]-[9].

that the Coordinator-General (COG) process is not just a relevant consideration that “may” be taken into account, it is a matter “regard” must be had to in the assessment process.²⁹ In this context, I also accept the submission that, to a very significant extent, the “extrinsic material” works in favour of the proposal. However, as the appellant acknowledged, it is in no way “determinative”.

[29] A development permit for a material change of use was lodged with the respondent on 9 May 2014. Thereafter, it engaged a number of independent experts to carry out a review and assessment. The consultants retained addressed matters including visual amenity, development engineering, noise and air quality, traffic and transport, geological and quarry operations, ecological issues, economic need, community need and town planning and social planning. The town planners then retained by the respondent, Buckley Vann, prepared a report for the respondent recommending approval of the quarry project subject to 100 conditions.³⁰ A relevant officer of the respondent thereafter prepared a report which, among other things, recommended that the development application be approved subject to the conditions proposed in the Buckley Vann report.³¹ Notwithstanding that recommendation, on 8 July 2014 the respondent’s City Planning Committee met and recommended that the development application be refused. On 11 July 2014 at a full council meeting, the respondent resolved to refuse the development application.³² The council’s decision notice set out 12 reasons for refusal.³³ On 11 August 2014 the appellant commenced its appeal.

[30] In their JER the town planners identified 9 “*town planning issues in the Appeal*”:³⁴

- “(a) The planning intent for the site;
- (b) Whether the proposed development will have acceptable impacts on the amenity of the local area;
- (c) Whether the proposed development will maintain the scenic amenity values, image and form of the city;
- (d) Whether the proposed development will have acceptable impacts on the environmental values of the city and the site;
- (e) Whether the proposed development will have acceptable traffic impacts;

²⁹ S 314(3) SPA: s 37(1)(d) *State Development Act*.

³⁰ Exhibit 6 V 7, Tab 4, pp B4981-5358 and B5089-5132: Exhibit 203A, 203B.

³¹ Exhibit 6 V 8, Tab 4, pp B4927-4980.

³² Exhibit 6, V 8, Tab 5, pp B5360-5363.

³³ Exhibit 6, V8, Tab 6, pp B5366-5368.

³⁴ Exhibit 29A, Part 1, p 18.

- (f) Whether there is a planning need for the proposed development;
- (g) Whether the proposed development is consistent with reasonable community expectations;
- (h) Whether the proposed development complies with the relevant planning instruments, draft planning instruments and later planning instruments; and
- (i) Whether there are sufficient grounds to justify the approval of the proposed development despite any identified conflict with the relevant planning provision.”

[31] Numerous ecological/environmental issues were raised by other experts relied on by the parties, some of which were closely related to those raised by the town planners, others were not. The extent of the issues in dispute were identified in an 81 page document.³⁵

[32] At the time the development permit was applied for the town planning scheme in place was the respondent’s City Plan (CP 2003). At the time of the hearing of the appeal, that plan had been replaced with City Plan 2016 (CP 2016).

The lay witnesses

[33] The appellant and the respondent called a number of non-expert witnesses in support of their respective cases. While those witnesses relied on by the respondent were not required for cross-examination, those of the appellant were. The appellant’s witnesses were Mr Grimwood,³⁶ Mr Moreton,³⁷ Mr Donaldson,³⁸ and Mr Bailey.³⁹ Each of those witnesses were successful businessmen who had longstanding commercial relationships with the appellant. While the nature of their businesses varied (by way of example the business of Mr Moreton could be described as being quite modest whereas, on the other hand, the operations of Messrs Bailey and Grimwood involved major construction projects, including the construction of seawalls), each of them saw their business relationship with Boral and, in particular, its operations at Burleigh to be an important part of their business. Indeed the evidence of Mr Grimwood was that his company purchased materials from the West Burleigh quarry on virtually a daily basis and, on average, at an

³⁵ Exhibit 9.

³⁶ Statement Exhibit 158.

³⁷ Exhibit 159.

³⁸ Exhibit 160.

³⁹ Exhibit 161.

expenditure rate of about \$70,000 per month. I found all four of these witnesses to be honest, forthright and reliable.

- [34] The evidence of these witnesses, as is indeed the case concerning the lay witnesses relied on by the respondent, is far from determinative but nonetheless relevant. The evidence of these four gentlemen was also largely unsurprising. The thrust of their evidence, when looked at in total, was that while none of them would go out of business if Boral's operations in the West Burleigh area ceased, the closure of the existing quarry without a replacement nearby could have a number of negative impacts on their businesses. All of these witnesses readily agreed with Mr Litster's proposition that their businesses were highly competitive and that in securing future business they would have to, to use Mr Litster's term, "sharpen their pencils" when quoting for contracts. That may well be so, but I accept the evidence to the effect that the West Burleigh quarry, and therefore most probably the replacement quarry, produces high quality martial, was very competitive in its pricing and, perhaps more importantly, was, depending on the location of the project, a convenient and economical source of quarry product.
- [35] While they also readily accepted that alternate quarry sources were available, there seems little room for doubt that any additional haulage costs would be passed onto the end consumer. In this context I note that the evidence of these four witnesses was consistent with evidence given by Mr Gray and Mr Reed, the quarry "management" witnesses relied on by the parties. Their evidence was to the effect that two of the major concerns facing the operation of a successful quarry were haulage distances and the management of overburden.
- [36] Not surprisingly, these witnesses were also concerned with the prospect of there being an increase in the cost of purchasing at least some quarry product due to the reduction in competition. In my view, while the evidence of these four gentlemen on this aspect was far from compelling, it was nonetheless consistent with the evidence given by Mr Cooper, Mr Gray and Mr Norling when addressing the question of need.

[37] Turning then to the evidence of the lay witnesses relied on by the respondent,⁴⁰ their evidence was unchallenged and raised a number of expected and legitimate concerns. Mr Schneider, the town planner called by the appellant, readily accepted that many of the concerns they voiced were “rational”. In no particular order of importance, their concerns centred around the following issues:

- The physical impacts of quarry operations and, in particular, noise (including blasting), blast vibration, dust and air quality generally.
- The traffic noise and dust problems created by the haulage trucks.
- The added congestion and increased risk of accidents on Old Coach Road caused by the introduction of haulage traffic.
- The inconvenience caused during the upgrading of Old Coach Road under either upgrading option. That is, with a total road closure of up to 3-4 months or keeping Old Coach Road open but with restricted traffic movements for up to 10-11 months.
- The impact on wildlife and, in particular, bird life, koalas and wallabies caused by the removal of vegetation and/or the operation of the quarry.
- Impact on land values.

[38] Only two of these lay witnesses expressly referred to the loss of amenity caused by the quarry being physically visible.⁴¹ That of course does not mean that visibility was of such limited concern as discussed below under the heading “Visual Amenity.”

[39] As will become apparent, the impacts on amenity resulting from noise, air quality and blasting vibration are capable of being and will be kept within all the applicable laws, policies and standards. Non-compliance in this regard could of course be fatal to a development application. On the other hand, compliance need not be determinative.

⁴⁰ Mr Brown (Exhibit 182), Mr Stahnke (Exhibit 183), Mr Marynycz (Exhibit 184), Mr Laufer (Exhibit 185), Mr Smith (Exhibit 186), Ms Paul (Exhibit 187), Mr Brisbane (Exhibit 188), Mr Macgregor (Exhibit 189), Mr Gishkori (Exhibit 190) and Ms McClenahan (Exhibit 191).

⁴¹ Exhibit 190 at para [32] and Exhibit 185 at para [11]. Statements of Mr Gishkori and Mr Laufer.

- [40] The concept of amenity is a wide and flexible one not necessarily determinable by reference to the evidence of experts alone. In *Prime Group Properties Ltd v Caloundra City Council & Ors*⁴² Skoien SJDC said:

“Amenity

I have decided that, as separate components, no unreasonable adverse impact on the nearby residents in the form of noise, light or unpleasant odours would be caused by this development. But the concept of amenity is far broader than that. In *Broad v Brisbane City Council & Anor* (1986) 2 Qd R 317 at 326 de Jersey J. said:- ‘There is no doubt that the concept of amenity is wide and flexible. In my view it may in a particular case embrace not only the effect of a place on the senses but also the resident's subjective perception of his locality. Knowing the use to which a particular site is or may be put may affect one's perception of amenity.’

...

The resident/objectors gave evidence of their actual perception and the fears they held of the effect of the development. Their fears were, I thought, sometimes over-stated, even unlikely. However I accept that the actual perception which the residents claimed to have is genuinely held. That perception is one of residential amenity. Provided that perception can be seen to be reasonably held in an objective sense, it should be given considerable weight.

...

In deciding what are the reasonable perceptions of amenity of the residents I am conscious that I must apply "the standards of comfort and enjoyment which are to be expected by ordinary people of plain, sober and simple notions not affected by some special sensitivity or eccentricity". See *Rio Pioneer Gravel Co. Ltd v Warringa Shire Council* (1969) 17 LGRA 153 at 168.”

- [41] In this case there are a number of significant features in this regard. First, there were some 4,200 adverse submissions made against the proposal, albeit some 3,829 were in a pro forma form instigated by an organized opposition association.⁴³
- [42] A number of the submitters based their concerns not just upon fear of what might happen but by reference to actual experience with the existing West Burleigh quarry. Further, unlike the existing quarry that is situated in an area of mixed uses, including industrial uses, the proposed quarry is situated in a, relatively speaking,

⁴² [1995] QPLR 147.

⁴³ Exhibit 29B p 58, [304].

undisturbed timbered environment surrounded by residential and rural residential subdivisions.⁴⁴

[43] During the course of the cross-examination of Mr Schneider by Mr Litster, after being referred to a number of issues including noise, blasting vibration and traffic, the following exchange took place:⁴⁵

“Q: And there will be other persistent reminders of the fact that they have a quarry nearby because, unlike now, there will be up to 480 trucks a day using Old Coach Road and passing through the intersection near the local shopping centre?

A: Yes, there will be quarry trucks on the road.

Q: All of those things, I suggest to you, are indicia of an effect on people’s perception about the place in which they live?

A: They can be, yes.

Q: And knowing the use to which a particular site is or has been put can affect the perception of amenity that a person holds; do you agree with that?

A: It can affect their perception, yes.

Q: Would you go so far as to say that the people expressing concerns about their amenity and opposition to the quarry for that reason are being irrational?

A: No.

Q: One would accept that they are behaving quite rationally. You would accept that?

A: Yes I would accept that it’s quite rational to raise those concerns.

Q: Right. But your perception of the matter is sufficient (sic) has been done by complying with output levels that are set out in the Environmental Policies?

A: Yeah, and I have dealt with the issue of amenity impacts in – in two categories:

- (1) The tangible impacts, which would include noise, blasting and air quality, and, yes, I have – I have relied on the demonstration that the development would comply with the regulatory limits, together with the expert advice in this appeal, to conclude that the – the existing

⁴⁴ See e.g. Exhibit 1, p 11.

⁴⁵ T31-60 ll 26-47 to T31-61 ll 1-16.

level of amenity will only be impacted to an acceptable level. I haven't relied on the regulatory limits for the intangible components of amenity, of course.

Q: Right. You would accept that amenity is not just about the physical appearance of the surroundings, although it can be just about the physical appearance of the surroundings?

A: Yeah, absolutely. It's a broad – it's a broad construct.

Q: And it can include the emotional or sentimental feelings or attachment that people have about a place, yes?

A: Yes, that's – that's related to people's perception of a sense of place and – and – and – and the area that they live, yes.

Q: And the introduction of a quarry of the size that we're talking about is inconsistent with the reasonably held perceptions of these people; do you not agree?

A: Yes. I – it is inconsistent with the reasonably held expectations, yes."

[44] It became tolerably clear during the re-examination of Mr Schneider that his last answer would not in any meaningful way be affected by the changes made to CP 2003 in CP 2016.

[45] The "size" of the quarry Mr Litster was referring to was not only a reference to its expected operational life but also to its physical dimensions. In an east-west direction the disturbance footprint, including the quarry pit, the crushing plant, stockpiling areas and workshop etc. is between 1.3 and 1.37 km and in a north-westerly direction, the quarry pit will be in the order of 550 m.

[46] The evidence leaves me in no doubt that notwithstanding being confident that all relevant environmental guidelines and policies would be met by the appellant, the proposed development, if it were to proceed, would still have adverse impacts on the residential amenity of at least some of the residents surrounding the proposed quarry and particularly those more proximate to not only the quarry, but also Old Coach Road. The significance of this will be discussed in more detail when dealing with the evidence of the expert witnesses.

[47] Before turning to the expert witnesses, it is necessary to deal with an aspect of Mr Gore’s oral submissions. On more than one occasion he seemed to categorise as “intangible” potential impacts on amenity caused by certain quarry activities in circumstances where relevant regulations, policies and guidelines were met. That is, in my respectful view, an inaccurate description. That, by way of example, noise and vibration falls within prescribed levels does not mean they are intangible if the noise of a passing truck can be heard and the vibration from a blast felt.

The expert witnesses

[48] During the course of this proceeding evidence was given by 34 expert witnesses addressing the following issues:

- (i) Geology
- (ii) Blasting
- (iii) Air quality
- (iv) Noise
- (v) Traffic
- (vi) Koalas
- (vii) Quarry management
- (viii) Civil engineering
- (ix) Visual amenity
- (x) Terrestrial ecology
- (xi) Need (economic and community)
- (xii) Water hydrology
- (xiii) Aquatic ecology
- (xiv) Soils and groundwater
- (xv) Town planning.

Geology

[49] Each of the parties relied on experts in the field of geology. Dr Shorten, by the appellant, and Mr Major by the respondent. In their JER, Dr Shorten and Mr Major purported to identify 14 “*Geology Points*”.⁴⁶ It is unnecessary to set them out in any detail as in many instances both defer to the other expert witnesses. In particular, those concerned with town planning, economic need and quarry management. Essentially the dispute between Dr Shorten and Mr Major was:⁴⁷

“We disagree on the following specific points:

⁴⁶ Exhibit 24, pp 10-18.

⁴⁷ Ibid, p 26.

- **Paragraph 1F** of the Notice of Appeal; where **GS** holds that, within the Southern Gold Coast (South of the Nerang river), as defined, the land contains a resource that is both the last known (taken as being already identified within an existing KRA), and largest development (specifically the case for KRA 96), whereas **JM** holds that there still exists a limitless amount of meta-greywacke; that other larger resources are known in the Southern Gold Coast but not necessarily within a KRA; and that the claim in paragraph 1(f) is therefore **exaggerated**. We concede the need to defer to other experts, particularly in reference to need and town planning.

Paragraph 6 of the Consolidated Grounds of Refusal; where **JM** holds that there are sufficient existing and potential sources of meta-greywacke for the Gold Coast City without Extractive Industry lot 105, whereas **GS** holds that most sources are severely restricted and existing sources have not been shown proven to the same level as the land in question. We agree, however, on the low level of existing proof, and both concede the need to defer to other experts, particularly in reference to Need”.

[50] In respect of the first point, it is only necessary to determine whether or not Dr Shorten’s assessment of the size and volume of material available within the subject land is exaggerated. In his court report he states:⁴⁸

“The resources of the proposed Gold Coast Quarry site have been demonstrated to be significant in the geological and structural context of the region. In general, the reassessment of the work of Huntly (2013) and the subsequent additional investigations have served to increase the body of knowledge available for considered development of the proposed Gold Coast Quarry, and to reduce the uncertainties identified in Buckley Vann (2013). The quality of the meta- greywacke is very good and a higher confidence level can now be applied to the extent, quantity and quality of available resource. In the author’s opinion, the fuller understanding now gained of the structural and geotechnical aspects of the proposed GCQ site has the potential to enable a safer, more efficient and cost-effective extraction of resource”.

[51] Leaving aside the question of whether or not Dr Shorten has the expertise to speak about quarrying safety and the cost-effectiveness of the proposed quarry, I otherwise accept the substance of his evidence. In cross-examination, Mr Major also

⁴⁸ Exhibit 37, p 8, para 6.1.

conceded that the subject land contained a “*large mass of greywacke*”.⁴⁹ And that “*as far as an engineering geologist can make our judgment (sic) on the value of certain deposits, it is quite likely that a 40-year-old long quarry provides a significant value, yes*”.⁵⁰ Mr Major went so far as to agree that from a purely geological point of view there was no reason for refusing the development of the quarry.⁵¹

[52] I also accept that Dr Shorten’s investigations had a material impact on the level of certainty that could be attributed to both the quality and the extent of the quarriable material. The borehole data relied on by Dr Shorten was both relevant and informative.⁵² In this context I found Mr Major’s criticisms of those investigations not only unpersuasive but also difficult to follow in parts.⁵³ In circumstances where Mr Reed, the structural geologist and earth scientist relied on by the respondent to address quarry management issues had not carried out any similar or comparable investigation, I also found his criticisms of Dr Shorten’s work in this area unpersuasive. In any event, he deferred to the evidence of Dr Shorten and Mr Major when it came to geological structural matters.⁵⁴

[53] As to the second area of relevant dispute between these two witnesses, subject to one reservation, I again prefer the evidence of Dr Shorten. The reservation I have is that I conclude that he has overstated things by describing the other relevant resource sources within KRA 67 as being “*severely restricted*”.

[54] In his report, Mr Major stated the issue in question by reference to paragraph 6 of the Consolidated Grounds of Refusal:⁵⁵

“...there are sufficient existing and potential sites in the City of Gold Coast from which meta-greywacke can be extracted for the benefit of residents of the Southern parts of the City of Gold Coast (including the Reedy Creek area) without development of Extractive Industry, lot 105”.

⁴⁹ T11-7, L 9.

⁵⁰ T11-7, ll 13-15.

⁵¹ T11-10, ll 23-24.

⁵² E.g. see Exhibit 37, figures 19 and 20 and Exhibit 91, figures 12 and 13.

⁵³ T11-12 to 11-13.

⁵⁴ RT24-1 - RT24-8.

⁵⁵ Exhibit 47, para 32.

He later reported:⁵⁶

“The resource processing area for KRA 67 is approximately 13.5 km of which the existing four quarries occupy a total of about 2.3 km².

About 9.9 km² of the resource processing area for KRA 67 is in the Extractive Industry Zone.

The published geological map indicates that greywacke occurs in two main areas within KRA 67 that together cover about 6.4 km². The remaining approximately 7.1 km² is underlain by other rock types, most of which can be considered as hard rock quarry resources, with some alluvial settlements.

The 7.1 km² underlain by rock types other than meta-greywacke is largely within the Extractive Industry Zone, except for an area of approximately 1.5 km² in the South-East of the KRA.

By way of contrast, the proposed quarry site on lot 105 (which is effectively the resource processing area for KRA 96) is 0.65 km² (i.e. 65 Ha).

The significance of these hard rock quarry resources in the Northern Darlington Range has long been recognised as described... the planning policy of the Albert Shire Council was to direct future quarry development to the Northern section of the Shire on the Darlington Range and in the Stapylton areas, and no provision was made for protection of deposits at the Southern end.

The above estimates confirm that the hard rock resources in the as yet un-developed portion of KRA 67 are significantly larger than the hard rock resources identified for KRA 96. These resources include meta-greywacke and other hard rock types”.

- [55] There is no doubt that between Beenleigh and Oxenford there are vast volumes of hard rock (meta-greywacke) either being quarried, approved for quarrying or otherwise potentially available for future quarrying. This at least was one area upon which Dr Shorten and Mr Major agreed.⁵⁷ By way of some examples of this are the following quarries: Boral (Yatala), Holcim (Beenleigh), Hanson (Wolffdene) and Boral (Ormeau).⁵⁸ There are of course significant locational differences, KRA 67 being, broadly speaking, 40 km closer to Brisbane, but the same distance further

⁵⁶ Ibid para 38-44.

⁵⁷ T9-81, ll 11-28 per Dr Shorten.

⁵⁸ E.g. see Exhibit 91, figure 1.

from the Gold Coast. These locational differences, in the sense of distance, were not relevant to the issues canvassed by Dr Shorten and Mr Major but were relevant considerations for other experts. Their evidence is discussed below.

- [56] That there are vast volumes of hard rock within the existing and exploited sections of other KRAs is by no means the end of the matter. The evidence of Dr Shorten relevant to this issue was to the effect that his analysis and modelling of the “*structural issues*” associated with KRA 67, led him to conclude that not all of the resources within or about that KRA might be able to be quarried or, at least, not economically quarried. By way of examples: the northern expansion of the Holcim quarry and the Hanson quarry at Wolffdene.⁵⁹ These problems largely being associated with the removal of overburden, and to a more limited extent, the risk that some of the material within KRA 67 may be “sterilised.”
- [57] The overburden issue raised “cost” and other “impediment” ramifications, according to Dr Shorten, but to use his own words, were not a “showstopper”.⁶⁰ Also, as I understand Dr Shorten’s evidence, the extent of the “sterilised” hard rock would be limited to some 5% to 10% of the total “known quarriable material” in the south-west section of one of the quarries.⁶¹
- [58] Mr Cooper provided some support for Dr Shorten’s “structural” concerns regarding parts of KRA 67.⁶² Of more weight though in this context was the evidence of Mr Gray, a mining engineer relied on by the appellant. He agreed that the structural issues associated with KRA 67 were not “showstoppers” and even went so far as to broadly equate the physical characteristics of KRA 67 with that of KRA 96.⁶³
- [59] During the course of his cross-examination, Dr Shorten’s modelling concerning sections of KRA 67 and the conclusions he reached based on that modelling were subject to, if not express, then veiled criticism. I reject those criticisms. Dr Shorten’s modelling appeared to be soundly based and was not criticised in any meaningful way by Mr Major. I accept the conclusions reached by him based on his methodology.⁶⁴

⁵⁹ T9-87; T10-9 ll 5-26; T10-11 ll 30-47; T10-19.

⁶⁰ RT-10 at T10-7 ll 1-13; and described by Mr Reed as a “hassle.”

⁶¹ Ibid T10-7 ll 1-45.

⁶² T16-80 ll 24-47; T16-81 ll 1-3.

⁶³ RT day 24 p 6.

⁶⁴ See e.g. Exhibit 91 figures 20-25.

[60] By way of summary, the conclusions that I have reached concerning the evidence about geology are:

- (i) The meta-greywacke underlying the proposed development is of a good quality, capable of being effectively and economically quarried and its extent is such that it has the potential to provide product for some 40 to 60+ years;
- (ii) There are some overburden problems associated with quarrying some of the meta-greywacke within KRA 67 and the other relevant geographical surrounds, but those problems would not prevent the vast majority of identified material being quarried;
- (iii) Somewhere in the order of 5% - 10% of the known quarriable material in one of the quarries located in KRA 67 may be physically sterilised;
- (iv) There are structural issues associated with KRA 62 that are likely to make future quarrying within it more difficult than those likely to be encountered in quarrying KRA 96;
- (v) There are still enormous volumes of quarriable hard rock in KRA 67 and its geological surrounds, including KRA 62.

[61] By way of concluding the expert evidence in this regard, it was noted by both Dr Shorten and Mr Major that their areas of “disagreement” would be likely to be materially influenced by the evidence of experts in other fields. Indeed, in respect of both areas of disagreement, they conceded “*the need to defer to other experts, particularly in reference to Need.*” Town planning was also considered relevant to the first area of disagreement. The questions of Need and town planning are discussed below in considerable detail. However, for the purposes of this part of the case it is sufficient to note that I agree with Mr Major’s assessment that, absent a genuine need for the material located within KRA 96, it is largely a matter of geological interest rather than constituting a genuine resource.

Acid sulphate and acid rock drainage issues

[62] At the commencement of this proceeding it appeared that the respondent would contend that in the event that the quarry were to proceed, it would result in adverse consequences in respect of acid sulphate soil and/or acid rock drainage. However, following the evidence of Mr Shooter, an environmental scientist and Mr Briese, a

hydrologist relied on by the appellant, Mr Litster accepted that on the basis of that evidence those issues were no longer contentious.⁶⁵ Accordingly no further discussion about them is required.

Blasting, Air Quality and Noise

[63] Quarry blasting raised a number of potential amenity issues; vibration, fly rock, air quality and overpressure/noise.⁶⁶ As to a number of those issues, Dr McKenzie, called by the appellant and Dr Heilig for the respondent, agreed on a number of important matters. Consistent with their first JER,⁶⁷ in their second JER they reported:⁶⁸

“Dr McKenzie and Dr Heilig agree that blast-induced vibrations will be perceptible to some residents surrounding the proposed Development Application, but that the quarry has sufficient scope to ensure full compliance with the proposed vibration and over pressure limits at all existing residents (sic) and all approved lots at all times. Particular note is made of the reference made in the 660th council meeting in June 2013 to anticipate a disruption to classroom activities of a local school during blasting.....

The above considerations, with respect of vibration, over pressure and fly rock impacts, are predicted on the preparation and implementation of an improved Blast Management Plan involving both the quarry operator and an anticipated blasting services provider, in line with previous practices at the company’s West Burleigh Quarry. It is also agreed that the Blast Management Plan, and the expected vibration and over pressure impact contours, should be updated within two years of the commencement of operational blasting activities once sufficient monitoring data are (sic) available to permit such an update and that a five yearly review of the plan by qualified and experienced group or person is appropriate. Prior to any blasting being undertaken on site, the Blast Management Plan should be reviewed by the Council.

Finally, it is agreed that Condition Surveys should include at least two (2) control structures located beyond the impact zone of quarry blasting operations, in order to identify ‘normal wear and tear’ deterioration of residential and commercial structures.”

⁶⁵ T14-81, ll 40-47 to T14-82, ll 1-9.

⁶⁶ The relationship between overpressure levels and noise is discussed in the court report of Dr Heilig, Exhibit 46, p 2.

⁶⁷ Exhibit 17, p 1.

⁶⁸ At pp 2, 3 and 4.

Under the heading of areas of disagreement Dr McKenzie and Dr Heilig reported:

“There were no areas of disagreement between Drs McKenzie and Heilig in relation to the ability of the company to comply with the proposed impact limits, nor in relation to the liability to safely control fly rock, nor in relation to the requirements of the Blast Management Plan.”

[64] Following a request for further information from the town planners, Dr McKenzie and Dr Heilig prepared a third JER which relevantly provided:⁶⁹

“... For the sake of clarity, Drs McKenzie and Heilig agree that:

1. The rate of blasting.

This was defined in the Development Application, and taken in the Blasting Impact Statement to be once per week on average, with the vibration and over-pressure effects lasting for approximately two seconds per event.

2. Changes to the local environment when blasting occurs.

Drs McKenzie and Heilig are unclear what is meant by this question...

3. (a) Perceptibility of changes to environment caused by blasting.

Drs McKenzie and Heilig agree that the issue of perceptibility lies outside the brief of the Blasting Impact Study which was focussed on the ability to comply with statutory regulations rather than to attempt to address the nebulous and highly subjective value of personal perception. The experts agree that the statement in section 2.2 of the Blast Impact Statement ‘experience also shows that some people will find any level of perceptible vibration to be bothersome and unacceptable.’

(b) Ability to comply with regulatory limits when blasting.

As stated in the joint expert’s report, Drs McKenzie and Heilig agree that the blasting operations at the proposed quarry will be able to comply with Ecoaccess Guidelines at all times and at all locations within the proposed blasting areas, and that the methodology used in section 7 of the Blasting Impact Statement to arrive at that

⁶⁹ At pp 5 and 6.

conclusion is the most appropriate methodology to apply.

4. The nature of the impact in terms of amenity of residential areas.

Drs McKenzie and Heilig agree with the statements in section 2.2 of the Blasting Impact Statement dealing with this topic and further agree as per the Joint Expert's Report, that the matter of personal amenity is highly variable subjective and outside the scope of the EIS."

Under the heading areas of disagreement, the doctors concluded:

"There were no areas of disagreement between Drs McKenzie and Heilig in relation to the issues raised by the town planners and listed above."

[65] Adverse impacts on amenity associated with quarry blasting were also raised in the oral testimony of both witnesses, including the intermittent blasting during the establishment, development, construction and quarrying phases already referred to above. The totality of the evidence concerning blasting leads me to conclude as follows:

1. Adverse impacts on amenity from fly rock are highly unlikely.⁷⁰
2. With appropriate conditions imposed and with appropriate quarry management practices in place, all relevant regulations, policies and guidelines will be met.⁷¹
3. Notwithstanding that all relevant guidelines and policies would be met, the amenity of some residents living near the quarry would be negatively affected as a consequence of vibration and over pressure/noise caused by blasting.

[66] As to the first of these matters, I accept Dr Heilig's evidence that some close by residents might find the vibration caused by blasting to be "*bothersome and unacceptable.*"⁷² However, this impact on amenity has to be considered in context. It will only be likely to affect a relatively small number of residents with controlled blasting⁷³ and only for very short periods of time,⁷⁴ once a week for the life of the

⁷⁰ Exhibit 6 V6, pp 3261-3262; Exhibit 17, p 3.

⁷¹ E.g. s 440ZB of the *Environmental Protection Act* 1994 ("EPA"); Reg 61 of E.P. Regulations: Ecoaccess Guidelines, Exhibit 68: Refer also to evidence of Dr Heilig at T6-60, T6-61, ll 1-25.

⁷² T6-63 ll 29-30.

⁷³ Exhibit 65, P 7 "conclusions: Exhibit 46, Plates A & B: T6-19, ll 22-40.

quarry when quarrying operations commence. There was no suggestion that the level of vibration would be likely to have a negative impact on health or property. As I understand the evidence, vibration will not be an issue during the establishment and development phases because of the low level of charge that would be used.

[67] Turning to the issue of noise, Dr Heilig reported:⁷⁵

“Conventionally, in blast impact assessment, the audible noise level from the blast may be considered as less significant than the vibration impacts. Nevertheless, at the closest properties, noise from blasts at the proposed Boral quarry is unlikely to have reduced to an inaudible level. Residents are therefore expected to hear the blast.”

[68] Noise was also a matter addressed by engineers relied on by the parties. Mr Brown for the appellant and Mr King for the respondent. Both of these witnesses, in addition to addressing noise associated with the quarry per se also addressed the issue of traffic noise along the haulage route section of Old Coach Road.

[69] In their first substantive JER, Mr King and Mr Brown reported that there were no areas of disagreement between them⁷⁶ and that with appropriate conditions, measures and policies put in place “*the proposed quarry is predicted to comply with the noise limits as applied by Mr Brown...*”⁷⁷ That prediction included the noise associated with the use of Old Coach Road. Mr King however, went on to report:⁷⁸

“Mr King considers that an appropriate Noise Management Plan for future site operations needs to be prepared at the time of detail design and prior to commencement of site operations including establishment and construction works. The Noise Management Plan should provide detailed guidance to the operators on noise mitigation requirements for all considerations and should be updated regularly throughout the life of operations to ensure appropriate direction is provided in complying with appropriate noise limits. Mr King considers that summaries of the Construction Noise Management Plan and Environmental Noise Management Plan in appendix L of Mr Brown’s report number 08-033-EIS, ROI provide a suitable basis for the preparation of the Noise Management Plan. Mr King recommends that the Noise Management Plan include the requirement for compliance with noise monitoring at regular intervals to inform the operators as to the effectiveness of noise

⁷⁴ T6-15, ll 17-27; T6-17, ll 10-46.

⁷⁵ Exhibit 46, ll 1-3.

⁷⁶ Exhibit 15, p 20.

⁷⁷ At p 19, paras 22-26.

⁷⁸ At p 20.

control measures and to assist in managing noise from site operations. Given the requirements for adaptable noise control measures during the various quarry phases, Mr King considers that regular noise monitoring is warranted rather than more contemporary noise monitoring required on the basis of complaints. The Noise Management Plan should include a schedule of methodology for regular noise monitoring of quarry operations.”

[70] Mr Brown, on behalf of the appellant, agreed to a noise management plan of the type advocated for by Mr King. Following an “Information Request” from the town planners asking for details of the existing amenity and how that amenity may be negatively impacted during the various phases of the quarry development and operation, including haulage traffic noise,⁷⁹ Mr King and Mr Brown responded:⁸⁰

“The noise experts are of the view that the level of noise from the establishment phases and operational phases of the quarry can be controlled so that compliance with the acoustic quality objective of Schedule 1 of the background creep criteria of clause 10 of Environmental Protection (Noise) Policy 2008 will be achieved. In these circumstances, the acoustical amenity of the community will be adequately protected.

Finally, the noise experts wish to note that consideration based solely on the audibility or perceptibility of environmental noise is not the appropriate test when determining the acceptability or otherwise of environmental noise emission. Rather, due regard has to be given to regulatory noise standards, i.e. numerical criteria.”

[71] In respect of three specific questions posed by the town planners, Mr King and Brown reported further:⁸¹

“**Q:** In the expert’s respective expertise, will the change to the amenity/environment comply with the acceptable regulatory limits in the event the proposed extractive industry is approved?

A: Yes.

Mr King agrees that on the basis of the reporting prepared by Mr Brown for the Development Application and the Joint Expert Noise Report (July 2016) compliance is predicted to be achieved with regulatory limits on the basis of

⁷⁹ At p 30.

⁸⁰ At p 32, paras 10 and 11.

⁸¹ At pp 33-34.

implementation and continued use of specific noise mitigation measures.

Q: In the expert's respective opinion, what is the nature of the impact on the amenity of nearby residential areas?

A: Mr Brown, none. Because the level of noise from the operation of the quarry can be controlled so that compliance with the relevant noise limits can be achieved at all times... Mr King states that there will be a noticeable change in the acoustic environment at surrounding areas, at times, as when **perceptible but within compliance limits noise from the quarry activities can vary over time including high impact, high level, short duration noise events** which (sic) will can (sic) be out of character with the existing acoustic environment. Residents along Old Coach Road will experience noise from quarry road haulage trucks which will be audible at times and due to the increase in frequency of heavy vehicle traffic, a noticeable change in noise character of heavy vehicles will result at times.

Mr King further identifies that the noise experts agreed in the Joint Report (July 2016) that the proposed quarry is predicted to comply with the noise limits as adopted. On the basis that the level of noise from the operation of the quarry can be controlled so that it is in compliance with the relevant noise level limits can be achieved at all times, adverse acoustic amenity impact shall not result at nearby residential areas." (Emphasis added).

[72] In circumstances where there is no basis for concluding that the appellant will not comply with all regulatory requirements and adopt an appropriate noise management plan, there could be no basis for refusing the application on the basis of noise per se. That however, in my view, is not the end of the matter, because, notwithstanding that all appropriate regulatory requirements will be met, any adverse impacts associated with noise have to be considered in the light of all the negative impacts on amenity that might flow from the development and operation of the quarry. This is not a case that can be resolved by looking at each issue in isolation and where compliance on a "one-by-one" basis is met, concluding that there would be no reason to warrant refusal.

[73] In this context, in re-examination, Mr King was asked the following questions by Mr Fynes-Clinton, junior counsel for the respondent:⁸²

“Q: Mr King, you were just asked in the last couple of questions, dealing with Old Coach Road, about the change in noise levels, and you gave some evidence about the change in character. Can you – are you able to put some descriptive flesh on the difference in character between the quarry traffic and the existing traffic?”

A: Certainly. So in respect of the residences along the southern part of Old Coach Road, prior to reaching the quarry land, Your Honour, which are more removed from the Pacific Motorway, current daily traffic flows on Old Coach Road have a heavy vehicle percentage of about- if I remember rightly, 1.7, 1.8 per cent. With the quarry operating, the heavy vehicle percentage will increase significantly, up to potentially 40 truck movements per hour depending upon the traffic engineer’s advice. The noise of a truck or a laden truck going past is certainly quite different to a typical motor vehicle. The increase in the number of trucks is compared to less than 2 per cent of the daily traffic, will change what people perceive if they were outdoors necessarily, and aware of the traffic on the road. So more trucks, more noise of a different character, or a more – an increase in the frequency of occurrences to what occurs now. **That would be the perceived change if people are outdoors and aware of what’s going on, on the road.**” (Emphasis added).

[74] The discussion concerning air quality is similar to that concerning noise. That is, after identifying the air quality concerns raised by the respondent,⁸³ Mr Welchman for the appellant and Mr King for the respondent, reported:⁸⁴

“The experts agree that the Coordinator-General’s Stated Conditions (if followed) are adequate to ensure that adverse impacts on air quality will not occur.

The experts agree that EHP’s EA Conditions (if followed) are adequate to ensure that adverse impacts on air quality will not occur.

No additional conditions are necessary.

⁸² T4-8, ll 1-18.

⁸³ Exhibit 16, p 5.

⁸⁴ At pp 19 and 20.

Overall comments

The experts are satisfied that the proposed development adequately addresses potential impacts on air quality. The experts agree that if the Gold Coast Quarry is conducted in accordance with the commitments made by the appellant in the EIS and in accordance with the Imposed Conditions issued by the Coordinator-General and the EA Conditions issued by EHP, the development will manage and mitigate unacceptable levels of air quality (especially dust) in surrounding residential areas in accordance with the Performance Criteria PC 19 and PC 20 of the Emerging Communities Domain Code.

The experts agree that the proposed development provides acceptable buffer separation differences from adjacent residential areas, such that amenity of those areas will be protected. This conclusion is on the basis of the proposed quarry design and air quality control measures.

Areas of disagreement

There are no areas of disagreement.”

- [75] In response to a number of specific questions raised by the town planners in respect of impacts on amenity,⁸⁵ Mr Welchman and Mr King, under the heading “*Areas of Agreement*” reported:⁸⁶

“The perceptibility of the change in the level of an air pollutant is not a metric that is conventionally used to determine the appropriateness or otherwise of a development. The appropriateness is determined by whether compliance with the air quality objectors can be achieved...

...even if the increase is perceptible, the air quality experts agree that it will not be possible for an individual to differentiate deposited dust that may be generated from the development from that which may be generated by other activities in the region...

Visibility of dust is not a metric that is conventionally used to determine the appropriateness or otherwise of a development. The experts agree that there is no way to quantify the visibility of dust within a dispersion modelling assessment. The air quality experts agree that the development is unlikely to cause dust that is visible within and close to residential properties. The air quality experts

⁸⁵ At p 25, para 3.1.

⁸⁶ At paras 4.25, 4.28, 4.30, 4.32 and 4.34 (pp 29-30).

agree that it is possible that from certain vantage points looking towards the development and under certain light conditions, dust may be visible in the vicinity of quarrying activities. The experts agree that such occurrences would have no consequences from an air quality perspective...

...the air quality experts agree that the Gold Coast quarry can be operated in a manner that minimises dust emissions and does not cause an adverse impact on air quality at sensitive receptors on the basis that predicted dust levels comply with statutory air quality standards...

The air quality experts agree that the development can be managed and operated so as not to adversely impact amenity. The air quality experts agree that the development is likely to increase dust levels at times.

Areas of disagreement

There are no areas of disagreement.”

- [76] There is again no reason that would suggest that the appellant would not comply with all conditions imposed by relevant authorities. However, as stated in respect of “noise”, compliance with “*statutory air quality standards*” is not necessarily the end of the matter. The entirety of the evidence concerning air quality has to be considered in assessing the potential negative impacts on amenity. The evidence of Mr King was⁸⁷ that the amenity of the community both in respect of noise and air quality would be, with the imposition of appropriate conditions, adequately protected at all times.
- [77] Unlike the situation concerning the potential impact of noise on urban amenity, Mr King had no such reservations in respect of air quality.⁸⁸
- [78] Unlike air quality however, the issue of noise needs some further consideration when addressing the evidence of the town planners. The proposed noise barrier (120m long and 6m high) adjacent to part of the Observatory Estate to the west⁸⁹ will be addressed below when dealing with the “visual impact” aspects of the case.
- [79] Before dealing with the issue of traffic, it is necessary to deal with the potential for dust to be a nuisance to some residents within “sensitive areas”. That is, depending

⁸⁷ T4-3, ll 36-47 to T4-4, ll 1-7.

⁸⁸ T4-4, ll 1-7.

⁸⁹ Exhibit 16, p 26.

on location and the weather, particularly wind direction, the amount of dust that might be deposited on some residences might be measurable. In this context though, I accept the evidence of Mr Welchman to the effect that dust as any form of nuisance would be limited to those residents “very close to the quarry.”⁹⁰ From time to time though, dust from the quarry would be noticeable to a broader section of the close by residents: as Mr Litster put it, as a reminder that they lived near a quarry that was not there before.

Traffic

[80] The disputed traffic issues (other than noise) were initially identified in various documents,⁹¹ but were “*summarised*” by the traffic engineers, Mr McClurg for the appellant and Mr Beard for the respondent, in their first JER:⁹²

- (i) The site access arrangement, in respect of traffic safety and operations on Old Coach Road, particularly including any limitation on the usage of Old Coach Road to that part of the route north of the site access but quarry haul vehicles;
- (ii) Changes to the site access arrangement, if and when the Bermuda Street Extension is constructed;
- (iii) The ability to upgrade Old Coach Road, within the existing road reservation, between the site and Kingsmore Boulevard to ensure satisfactory traffic safety and traffic operations;
- (iv) Upgrading the intersection of Old Coach Road at Kingsmore Boulevard and that the system of roads, intersections and ramps which make up the Reedy Creek Road Interchange... with the Pacific Motorway to offset any adverse impacts of development generated traffic on traffic safety and traffic operations within this traffic system;
- (v) Responsibility for the cost of the required site access works;
- (vi) Responsibility for the cost of the required Old Coach Roadwork upgrading works;
- (vii) Responsibility for the cost of any required intersection upgrading works within the subject site and the system of roads, intersections and ramps which make up the Reedy Creek Interchange... with the Pacific Motorway;
- (viii) The ability to define reasonable and relevant conditions required to ameliorate any adverse impacts of the development generated traffic and offset any adverse impacts

⁹⁰ T3-98, L 45 – T3-99, ll 1-17.

⁹¹ E.g. Exhibit 9, pp 38 – 39.

⁹² Exhibit 23, pp 6-7.

on traffic safety and traffic operations, particularly recognising that the future Bermuda Street Extension might reasonably necessitate significant and extensive, changes to already completed works.

- [81] Road design and cost issues were also identified by the traffic engineers. These matters will be addressed below when dealing with the evidence of the civil engineers, Mr Gould for the appellant and Mr McAnany for the respondent.
- [82] In their fifth JER, the traffic engineers narrowed down their issues in dispute. Mr McClurg and Mr Beard agreed that the issues identified in subparagraphs (i), (ii), (v), (vii) and (viii) would probably be able to be addressed by the imposition of appropriate conditions of approval.⁹³ As to the financial burden of the cost of upgrading Old Coach Road to an appropriate physical or structural standard to act as a haulage road,⁹⁴ it is now accepted that Boral would bear those costs.⁹⁵
- [83] Turning then to the remaining issues in dispute. While I have a considerable amount of sympathy for the approach advocated for by Mr Beard, namely that quarry haulage truck traffic be directed via the proposed Bermuda Street Extension, it is not an option reasonably open on the evidence. Unfortunately, the state of the evidence is that, notwithstanding that the existing West Burleigh quarry will continue to operate for the next 6-10 years, there is no evidence to indicate that the intended Bermuda Street Intersection roadworks would be approved, let alone commenced or completed by that time.⁹⁶ Further, even accepting that some temporary arrangement could be put in place prior to the ultimate planned intersection (which is complex and will be enormously expensive), the extent and cost of those works would likely render any condition requiring such works to be completed by the appellant, to be manifestly unreasonable.
- [84] As to the remaining issues, Mr Beard took it upon himself to resolve his concerns about the speed of the northbound haulage traffic⁹⁷ by designing an “acceleration/auxiliary lane.”⁹⁸ Indeed it would not be unreasonable to say that Mr Beard played a significant role in solving a number of the traffic planning issues the

⁹³ Exhibit 23, pp 46-50; also Exhibit 45, pp 9-11.

⁹⁴ Traffic issue (vi), at para 82.

⁹⁵ T8-64 –T8-66, ll 1-27.

⁹⁶ T9-57, ll 10-47.

⁹⁷ Traffic issue (iii), at para 82.

⁹⁸ Exhibit 89: T9-60, ll 34-40.

proposed development might cause. Mr Beard made it quite clear that his strongly preferred option was the use of the future Bermuda Street Extension but, in the event that that option was not accepted by the court, while the proposed roadworks for Old Coach Road would result in an “undesirable but acceptable” outcome, traffic issues would, subject to the imposition of appropriate conditions, no longer be a reason for refusing the application. In this context, during the cross-examination, the following exchange took place between Mr Gore and Mr Beard:⁹⁹

- “Mr Gore: To that area?
 Mr Beard: It’s actually a 60 metre wide road reserve, Mr Gore, so, you know, it’s probably – I was satisfied that you could fit it in if you wanted to anyway.
- Mr Gore: Yes, okay. And so, just so it’s clear, your evidence is that if a – an auxiliary lane, of the kind that you’ve shown in this figure, was part of the upgrade, then your concern about this speed issue for the northbound laden trucks related to safety issues would disappear?
 Mr Beard: It would.
 Mr Gore: And is it also your evidence that, with the disappearance of that issue, there is no ground for refusal if His Honour were minded to opt for the upgraded Old Coach Road as the means of access rather than delaying the Bermuda Street extension?
 Mr Beard: It’s probably not quite as clear-cut as that, Mr Gore, in that, in my opinion, if His Honour formed the view that the Bermuda Street extension was going to happen at some reasonable time, there would still be very, very good engineering reasons to go for that alternative instead. But if you, for example, were considering this in the context that the Bermuda Street extension didn’t exist and would never exist, then, as far as I’m concerned, I’m sure the answer that you want to hear is that this would no longer be a reason to refuse the use of Old Coach Road.

⁹⁹ T9-60, ll 34-47, T9-61, ll 1-12.

- Mr Gore: Yeah. So you would – you’ve pointed out that there are aspects that you think are undesirable but not unacceptable?
- Mr Beard: Yes.
- Mr Gore: To the extent that those aspects exist, absent any Bermuda Street extension, you would regard the entire – that entire proposal as acceptable?
- Mr Beard: It – it wouldn’t – there’d no longer be any basis on which to refuse it, yes. It would be – it would have to be in the undesirable but acceptable category.”

[85] While traffic issues might not of themselves be sufficient to warrant refusal, that again is not the end of the matter. The “*undesirable*” traffic outcomes referred to by Mr Beard are significant and need to be considered when deciding whether, when all relevant matters are taken into account, approval of the proposed development would be an acceptable or unacceptable community outcome.

[86] In addition to the traffic noise issue identified above, there is also the potential for congestion at some intersections, particularly during the carrying out of the upgrading of Old Coach Road. Of particular significance in this regard is that Old Coach Road could be effectively closed for months resulting in significant re-routing of traffic¹⁰⁰ with adverse impacts on convenience and traffic congestion.

[87] During the course of the appeal the civil engineers investigated the option of upgrading Old Coach Road while keeping it open to traffic. That option is discussed below.

[88] Again, while acceptable traffic engineering solutions exist and would be put into place by Boral, the introduction of up to 450 haulage truck movements per day into the local roadwork system will, as is the case concerning traffic noise, vibration and dust, adversely impact on the amenity of some residents. In this context though it will not be the same residents who experience the same impacts. Who suffers what will be dependent on location and, at the end of the day, in relative terms these adverse impacts will affect only a very small proportion of the residents of the Southern Gold Coast local government area. In this context I accept the submission made on behalf of the respondent that the introduction of so many haulage trucks

¹⁰⁰ See Exhibit 36, pp 8 and 10 per Mr McClurg and Exhibit 45, p 22 per Mr Beard.

into the road network will be a constant reminder of the quarry to a number of the local residents. Particularly at locations such as the Kingsmore Road roundabout and, to use Mr Beard's words, while traffic issues associated with Old Coach Road would not of themselves warrant refusing the application they nonetheless result in an "undesirable outcome".

The civil engineering evidence

[89] The extent of the work carried out by Mr Gould and Mr McAnany was enormous.¹⁰¹ Thankfully, it was unnecessary for me to drill down into the detail of their investigations and conclusions because of the level of agreement between them.

[90] At the risk of understating the evidence of the civil engineers, the following was made tolerably clear:

- (i) the timing and costs associated with the Bermuda Street extension option make it impractical at this time;
- (ii) the relevant sections of Old Coach Road could be designed and constructed to a satisfactory safe haulage road status;
- (iii) the existing road works could be carried out largely within the existing road reserve; and, where not, will be largely confined to the appellant's own land;
- (iv) two options exist for the upgrading of Old Coach Road. First, as originally envisaged, closing the road for a period of 3-4 months. The second option was to keep Old Coach Road at least partially open during the upgrading. Not surprisingly, this option would extend the construction phase, inconveniencing traffic for up to 10 months according to Mr Gould and 11 months according to Mr McAnany.

[91] The cost of the road works runs into many millions of dollars. To use Mr Litster's words, they are "high order" costs. Under the "open road" option, costs would be in the order of \$6.5 million to \$7.2 million, which is about \$1.5 million more than the option involving closing the road.

[92] Fortunately, it is not necessary for me to resolve disputes concerning costs of construction as they will be borne by the appellant. Nor is it necessary for me to resolve whether construction should occur with the road closed or partially open. That would be a matter for a later day in the event of approval.

¹⁰¹ E.g. Exhibits 22A, 22B, 105 and 108.

[93] That said, either option would result in significant disruption either as a consequence of delays on Old Coach Road or diversions of the type envisaged by the traffic engineers.¹⁰²

[94] It was also identified during the course of the evidence of the engineers that the proposed roadworks would be likely to require additional clearing including that of some designated endangered species. However, insofar as this matter is concerned, I accept the evidence of Mr Francis, an environmental scientist relied on by the appellant, which was to the effect that the amount of endangered species likely to be affected would be very small (about 0.01 ha) and would be readily offset by additional planting within the buffer area surrounding the proposed quarry or by the payment of monetary compensation.¹⁰³

The White Bellied Sea Eagle and Koalas

[95] A considerable amount of evidence was given by a number of witnesses dealing with the potential environmental/ecological impacts that might result as a consequence of the proposed quarry. However, the potential impacts on the koala population and the white bellied sea eagle were given particular attention.

[96] Located just outside the southern boundary of the quarry footprint is a magnificent nest of the white bellied sea eagle.¹⁰⁴ The evidence is that this nest is one of two maintained by breeding white bellied sea eagles. Significantly, the best evidence is that the nest also has a successful breeding history. The location of the second nest is unknown.

[97] While very proximate to the southern boundary of the disturbance footprint, the tree in which the nest is constructed is in the order of 100m from the nearest south-eastern corner of the quarry pit itself.¹⁰⁵ Once that degree of separation was pointed out to Dr Watson, the flora and fauna expert relied upon by the respondent, he accepted that there was little or no risk to the breeding pair of eagles arising out of

¹⁰² E.g. Exhibit 23 at pp 43-45.

¹⁰³ T17-66, ll 15-47, T17-67, ll 1-30.

¹⁰⁴ See Exhibit 146.

¹⁰⁵ Exhibit 1, p 34 and T20-37, ll 13-16.

fly rock generated from blasting.¹⁰⁶ I am also satisfied that the eagle would not be physically placed at risk by fly rock caused by blasting during the establishment and development phases. The evidence in that regard is that while blasting might be more frequent, it would be at a materially lower level of intensity.

[98] That the eagles would not be under any physical threat from fly rock is, of course, not the end of the matter. The operations associated with the quarry, particularly during the establishment and development phases, would be likely to cause the breeding pair to abandon this nest, or at the very least, be likely to interfere with breeding. That concern was obvious from the evidence of Mr Agnew, an expert on fauna related matters relied on by the appellant. His concern was such that he favoured various measures, including netting, to dissuade the breeding eagles from using the tree for at least the first two or three years of development.¹⁰⁷ Such netting exercises have resulted in uncertain outcomes and are not guaranteed of success.

[99] There was no direct evidence that the subject nest was the eagle's primary nest however, there was evidence that it had been successfully used for breeding, and it seems more likely than not that it is the primary nest given its known breeding record. Often the secondary nest is less developed, being something ranging from "*rudimentary through to something that is more of an intermediate advanced development.*"¹⁰⁸ In this context, in response to a question from me, Mr Agnew responded:¹⁰⁹

Q: If they were dissuaded from using their primary nest, assuming the nest that we saw on the inspection was the primary nest, and I think – I don't think there has been any evidence given thus far, but there was some comment on-site that they had bred in that nest. If that was netted for two or three years, might not the secondary nest become the primary nest?

A: Well, that's what we would – would hope for, would potentially be a positive outcome rather than allowing the birds then to return to that existing nest, with monitoring – we'd have to monitor the birds during that period. Take a quick step back. We don't actually know what the – the breeding success is on

¹⁰⁶ T20-39, ll 37-47; T20-40, ll 1-3.

¹⁰⁷ T19-37.

¹⁰⁸ T19-36, ll 23-40.

¹⁰⁹ T19-37, ll 43-47; T19-38, ll 1-9.

– on the site now. There have been observations of nestlings, but we don't know how well – what success they've had on the site, but we presume that they have – they have bred and they've continued to use the site for a number of years. So we would want to monitor an alternative site, and were there a view that an alternative site was successful, then in my view I think we should permanently dissuade them from using the nest site on the subject land.”

[100] Even accepting the limited amount of knowledge concerning the white bellied sea eagles and their breeding habits, it is very likely that in the event the quarry was to proceed, the breeding pair, either of their own volition or through human intervention, would abandon this nest. On this topic, I also accept Dr Watson's evidence to the effect that once abandoned there would be a real possibility that the breeding pair would never return to the subject nest.¹¹⁰

[101] I am not persuaded that in the event that the subject plan was developed in accordance with the Reedy Creek Structure Plan, the same outcome would be likely. During the course of cross-examination the following exchange took place between Mr Gore and Dr Watson:¹¹¹

“**Q:** Yes. And all I'm suggesting to you is that even with those larger (buffer) distances involved, because we're talking about human behaviour, and potentially quite large numbers of people if the plan area was fully developed, that would cause a disturbance to the bird – birds?

A: Well, in accordance with that plan. And this Reedy Creek overlay, that area is – is all identified as a green - as a proposed open space and nature conservation.

Q: I agree. But do you not agree that there would still be issues about the proximity of residential development? If you don't agree just say so?

A: I don't – I don't believe there would be.”

I accept Dr Watson's evidence on this topic.

¹¹⁰ T21-10, ll 1-8.

¹¹¹ T21-11, ll 36-45.

- [102] Potential nest trees have been located in the general locality.¹¹² However, given the lack of knowledge concerning the behaviour and habits of these large raptors, it is far from certain that the breeding pair would relocate to any of the trees identified.
- [103] The evidence such as it is concerning these birds is that, should the quarry proceed, there is a significant risk that the breeding pair would abandon the subject nest. In circumstances where it is not known where the secondary nest is, that might mean that that breeding pair would be lost from this locality. That would be a very unfortunate consequence. However, in circumstances where there was no suggestion that the birds would not continue to breed, albeit elsewhere, this outcome would not warrant refusal.
- [104] Before leaving the topic of birds and turning to the koalas, reference was made during the course of the evidence to the glossy black cockatoo. There is no doubt that feed trees for these cockatoos will be lost as a consequence of the construction of the quarry. That consequence was investigated by Mr Agnew who carried out a study and prepared a feed map.¹¹³ According to him the loss of those trees would amount to a “*low-impact*” consequence.¹¹⁴ As I understood the evidence on this topic, over the entire site there were 27 feed trees and of those, six would be destroyed during the development of the quarry. While the loss of those feed trees was a matter Mr Agnew was questioned about by Mr Litster, his conclusions on the topic were not seriously challenged. Also, Dr Watson did not seriously challenge Mr Agnew’s evidence on this topic. The evidence concerning the glossy black cockatoo leads me to conclude that while there will be a loss of feed trees associated with the development and operation of the quarry, that loss would be able to be offset if necessary by propagation of the relevant species within the indented buffer area.
- [105] Turning then to the issue of Koalas. The proposed quarry, when fully developed, would result in the destruction of 23,247 non-juvenile koala habitat trees (NJKHT). Those experts dealing in particular with the existing koala population, Dr Carrick and Mr Saunders, relied on by the appellant, and Dr Ellis, relied on by the

¹¹² See Exhibit 146.

¹¹³ Exhibit 147.

¹¹⁴ T19-40, ll 10-27.

respondent, identified a number of issues to be addressed before reaching their final conclusions. In their first JER, they reported:¹¹⁵

“A key element in consideration of the Koala issues in the Appeal is the effect of the proposal on native vegetation constituting Koala habitat on the site. The Ecology (Koalas) experts will need to rely on the Ecology (Terrestrial Flora) experts to quantify the non-juvenile Koala habitat trees that will unavoidably be removed for quarry operations. The Ecology (Terrestrial Flora) experts will then need to provide for assessment by this group [Ecology (koalas)], information on the number and location of any proposed replacements...”

[106] It was also identified that input might be required from the civil engineers to provide information concerning safe crossings for koalas and other fauna, together with information about fencing the site to protect koalas from various hazards including roaming dogs. In their relevant JER, Dr Watson and Dr Francis provided their input. After identifying the relevant issues raised in the Notice of Appeal, they reported:¹¹⁶

“We agree that most of these issues can be grouped as (a) those that relate to potential loss of habitat required to support Koalas on the site (loss of non-juvenile koala habitat trees...) or (b) those that relate to potential loss of connectivity on and through the site. Other matters (c) relate to potential changes to vehicular traffic on the road network onsite and offsite, predator control, as well as changes to the designation of the buffer areas of the site to secure their environmental values in the long term.

We also agree that the loss of Koala habitat trees that would inevitably be removed for the quarry pit and associated processing plant if the proposal is approved would constitute a residual impact on Koalas, to be compensated for in accordance with the Koala habitat offset policy applicable at the time of such approval. (b) Furthermore, we agree that the appropriate compensation for loss of NJKHTs in developing and operating the quarry is to establish replacement trees - not simply change the tenure of existing habitat without re-establishing trees...”

[107] In their second JER, Dr Carrick, Mr Saunders and Dr Ellis identified what they described as a number of critical “environmental offsets” for the impacts resulting

¹¹⁵ Exhibit 18, pp 2-3 at [7].

¹¹⁶ Ibid, pp 5-6, paras [5] and [6].

from the destruction of the NJKHT. These included¹¹⁷ the planning of replacement trees at a ratio of 3:1 (i.e. in the order of 70,000 trees) over an area of approximately 70 ha, which need not consist of one site only.¹¹⁸ Offset planting would be synchronised with the evolution of the quarry. Other issues included management of roving dog populations, fencing, connectivity with other NJKHT areas, appropriate bushfire management and monitoring.

[108] Significantly, the experts agreed that:¹¹⁹

“We agree that providing loss of Koala habitat is offset as above and potential connectivity impacts are mitigated...”

Conclusions

As long as the measures detailed in this Joint Report are adopted, we agree that potential impacts to Koalas arising from the proposed development can be managed and **a net benefit to Koalas will result**, as per item 45(i) in the Notice of Appeal dated 11 August 2014.

Points of disagreement

There are no points of disagreement” (Emphasis added).

[109] Notwithstanding those conclusions, these experts were then asked to specifically turn their minds to a number of potential issues arising as a consequence of the operation of the State Planning Policies and/or the South East Queensland Regional Plan and/or the respondent’s town planning schemes CP 2013 and/or CP 2016. Pursuant to that request for additional information, these experts prepared a “Supplementary Report.”

[110] After substantial individual input, including disquiet expressed on the part of Dr Carrick about what he considered to be active involvement of “...*the legal representatives of one of the parties...*”¹²⁰ Dr Carrick and Dr Ellis concluded:¹²¹

“Consensus statement

¹¹⁷ At pp 8-11.

¹¹⁸ RT21-22, ll 33-37.

¹¹⁹ Exhibit 18 at pp 9-11.

¹²⁰ At p 67.

¹²¹ At pp 68-69.

We share broad agreement on various issues in attachment A of the court order dated 16 September 2016, but to drill down as to the specifics of how each of these various provisions affect the Boral proposal with respect to Koalas requires legal certainty as to (a) the hierarchy of the various provisions (and what effect this has on what appear at face value to be significant inconsistencies or incompatibilities as to their applicability to the proposal), as well as (b) any effect arising by way of what weight can be accorded seemingly inconsistent provisions.... These are not matters that lie within the area of expertise of the Koala Experts. When the Town Planning Experts achieve a consensus on the application of the provisions... that deal directly or indirectly with Koala conservation, or perhaps more likely, when His Honour's findings on the legal arguments by the Appellant's and Respondent's legal teams on the application of these provisions become available, the Koala Experts will be in a position to confer again to assist the Court (by providing our evaluation of the opportunities for achieving a satisfactory outcome for koalas within the context of provisions that we can be assured actually do apply to the Boral proposal). Depending on which provisions are found to be operable, an outcome essentially as provided for in Koala JER 20160715 would appear to be possible; or alternatively if, for example, offsetting the unavoidable impacts of the proposal on Koala habitat on the site is actually found to be precluded by the 'protected in situ' requirements of parts of City Plan 2016, the proposal would not appear to us to be possible at all.

Points of disagreement

Whilst the Koala Experts have recorded a substantial number of individual comments these are not so much 'disagreements' as expressions of 'uncertainties as to whether or not agreement is possible' – due to the lack of legal certainty as to the hierarchy of the various provisions and implications by way of what weight can be accorded seemingly inconsistent provisions of different GCCC Planning Schemes and State planning instruments, as alluded to above."

- [111] The reference to the phrase "*protected in situ*" in Dr Carrick and Dr Ellis' "consensus statement" is a reference to where those words are used, in the respondent's CP 2016. Pursuant to s 8.2.6.2, the purpose of the Overlay code is described in these terms:¹²²

¹²² Exhibit 11A, p 194.

- “(1) The purpose of the Environmental significance Overlay code is to identify and protect matters of environmental significance and ensure that development is consistent with, and contributes to, the achievement of the objectives of the Nature Conservation Strategy.
- (2) The purpose of the code will be achieved through the following overall outcomes:
- (a) matters of environmental significance are identified, **protected in situ and enhanced to maintain** flora and fauna diversity within....”

The phrase “*protect in situ*” is then defined to mean:¹²³

“For the purposes of the Environmental significance overlay code, matters of environmental significance must not be damaged or removed, and the matter **cannot be offset.**” (Emphasis added).

[112] While clearly not lawyers, a matter that both Dr Carrick and Dr Ellis are no doubt pleased about, their observations are correct. That is, if the NJKHT on the site cannot be cleared, then the proposed development would not be able to proceed. In this context I also express the concern and disappointment that after having completed what they understood they were required to do, they were then asked to embark on an exercise which they clearly found difficult, and on the part of Dr Carrick, frustrating and arguably meaningless.

[113] Koalas are a listed vulnerable species and as the NJKHT habitat supports an existing koala colony, it is a habitat of national, state and local significance. However, the extant koala population is quite small. Given the difficulty in quantifying just exactly how many koalas might be present, Dr Carrick’s “best guess” was between 3 to about 10 koalas over the entire site (217 ha) and between 1 and about 6 habituating the disturbance area (65 ha).¹²⁴

[114] It is unfortunately the case that even if the proposed quarry did not proceed but instead some form of residential development took place, the existing koala population would be placed under stress. In his court report, Dr Carrick referred to a further study carried out by *ddwfauna* in March 2005. Dr Carrick reported:¹²⁵

¹²³ Ibid p 304.

¹²⁴ Exhibit 40, p 3, paras 7-9; RT21-51 ll 5-47, RT21-52 ll 1-7.

¹²⁵ Exhibit 40, p 2, para 5.

“Prior to my inspection of the site in 2009, a ‘Basic Fauna Assessment’ of the site was undertaken by ddwfauna in March 2005 (see appendix B). With respect to koalas, the ddwfauna report recorded observations consistent with subsequent studies of the site. ‘Only limited evidence of koalas were received on site. Fresh faecal pellets were located under three mature trees’ and no koalas were observed. The authors concluded that: ‘this suggests that the area does not support a large population of koalas, although further surveys may record a greater level of activity than currently estimated. The removal of (a) large number of suitable shelter and fodder trees, increased disturbance in the form of traffic, noise and domestic dogs will reduce the quality of the bushland for this species in the immediate area. There is, however, little reason to suggest that this species will not continue to utilise the bushland surrounding the proposed quarry or residential development.’ And ‘in conclusion, it is fair to state that while both of the possible proposed developments will negatively impact the faunal diversity onsite, they will do so in different ways. The residential development will probably have a greater long-term influence due to the associated effects and increases in traffic.”

- [115] Of particular concern to Dr Carrick about residential development was the introduction of dogs.¹²⁶ Dr Carrick’s evidence about this was not challenged and I accept it.
- [116] Before proceeding further, it is important to note the level of residential development likely to occur under CP 2013 would have been significantly more extensive than could occur under CP 2016. The latter, according to Mr Litster, is a planning regime designed to preserve the existing SKRA or even to permit a quarry, albeit materially smaller than that proposed. More will be said about these matters when dealing with the evidence of the economists and town planners. Also, as Dr Carrick acknowledged, koalas can co-exist with residential development with appropriate planning and design.¹²⁷
- [117] Both in his report and in cross-examination, Dr Carrick, consistent with the views of Dr Ellis, expressed the opinion that “*koala habitat offset should always be the last resort (after avoid and minimise), not the first.*”¹²⁸ As already noted though, Dr Carrick, Dr Ellis and Mr Saunders all agreed that with proper management the

¹²⁶ RT21-42, ll 20-45 and RT21-44, ll 13-29.

¹²⁷ RT21-39 ll 43-45.

¹²⁸ Exhibit 40, p 5, para 10.5; RT21-22, ll 27-30.

development of the quarry and its consequential offsets could result in a “*net benefit to koalas*.” During the course of his cross-examination, I expressed the view that there appeared to be a tension between offsets being of last resort and yet resulting in a net benefit to koalas. When I raised this apparent tension with Dr Carrick, he responded:¹²⁹

“Yes. I understand that bit of it, your Honour. I think the net benefit, as I think I alluded to a bit earlier on, first zero out for the loss. So the offsets, at a minimum, do that. The previous title was offsets for a net gain in koala habitat, and the offset policy apparently is designed – and it says that, it’s designed to generate an increase in koala habitat in south east Queensland. So once that’s done, one can argue there’s a net benefit from that in the first instance. On top of that, the other measures on the site of predator control is going to benefit the koalas that remain there. Fire – better fire management is likely to benefit the koalas that remain there. Vegetation management of the buffer area is likely to benefit the koalas that remain there. So the – as long as the loss of the actual trees they depend on is offset, then the addition of these other things, in our view, would contribute to a net benefit for koalas. Not on the site. It will be to koalas in south east Queensland.”

- [118] The planting of future NJKHT at a ratio of 3:1 in land adjacent to other existing koala colonies is of course a fundamental part of any offsetting program. In his cross-examination, Dr Ellis maintained the opinion he expressed in the JER that the proposed development, with appropriate offsets and management, can result in a net benefit to koalas in south east Queensland. He also agreed with the proposition advanced by Mr Gore, to the effect that provided appropriate conditions were imposed which reflected and ensured the offset program identified in the JER, an acceptable outcome insofar as koalas were concerned could be achieved.¹³⁰
- [119] Turning briefly to the evidence of Mr Saunders, his involvement was essentially limited to identifying what parcels of land might be available to facilitate the offsetting program identified by Dr Carrick and Dr Ellis. In that regard, he submitted a report identifying a number of potential sites.¹³¹ During his cross-examination by Mr Litster, it became apparent that at least one of his sites was no longer available as a consequence of proposed residential development. On balance

¹²⁹ RT21-33, ll 7-18.

¹³⁰ Exhibit 18, pp 5-8, paras 10-12; RT21-58 l; 29-46.

¹³¹ Exhibit CB.

though, the evidence establishes that it is likely that suitable sites would be able to be acquired by the appellant to accommodate the necessary offsets. Neither Dr Carrick nor Dr Ellis expressed any reservation about the ability to acquire a suitable area or areas of appropriately located land.

- [120] An obvious difficulty with any offsetting program is that any planting regime cannot result in the immediate replacement of NJKHT, even when utilising more advanced planting. As Dr Carrick identified, there was a “*real issue for the koalas with some time lag between when the trees go in the ground and when they are of any use to koalas.*” According to him, that time lag could be as much as 20 years, but was more likely to be in the order of 10 years.¹³² In the third JER Dr Carrick reported:¹³³

“In the case of the Boral proposal, (a) there will be a replacement for the NJKHT removed on the site, (b) the removal will be staged over the 40+ years of the operational life of the quarry and (c) the trees will be progressively replaced with offset plantings in accordance with the State policy...”

- [121] To address the “time lag” problem, the offsetting program envisaged would see, once appropriate alternate sites have been identified and acquired, progressive planting over the life of the quarry. Over the establishment and development phases some 47% of the entire quarry site would be cleared. By the completion of the construction phase 65% of the quarry site would be cleared. Depending of course on demand for the quarried material, further clearing will then occur during the operational phase of the life of the quarry. On current projections, by the beginning of phase Q1 78% of the site would be cleared, by the beginning of phase Q2 80%, by the beginning of phase Q3 93% and by the beginning of phase Q4 100% of the site would be cleared.¹³⁴
- [122] The difficulties associated with addressing the lag time were raised with Dr Carrick during his cross-examination.¹³⁵

“Q: And so by the time the project’s about 5 or 6 years in, 64% of the clearing – the ultimate footprint will be cleared?”

¹³² RT21-24, ll 23-30.

¹³³ Exhibit 18, p 7.

¹³⁴ Refer to Exhibit 6 V3, pp B1337-1340.

¹³⁵ RT21-28, ll 4-13.

- A:** Yes.
- Q:** And that would really mean that a substantial amount of planting needs to happen straight away on approval, if it's to go anywhere close to providing any sort of sensible offset?
- A:** I agree, and I would hope that should His Honour approve the – or allow the appeal, that that would be a condition that the next stage of construction – or development of the site wouldn't happen until a start had been made on the plantings for the – that tranche of clearing.”

[123] Dr Carrick later went on to say:¹³⁶

“...the kind of – yes, far be it from me to dictate to the court. But that would be my hope that, if this were to proceed it would be on the basis that these offsets have to actually be delivered, and that – not only that they've been started, but by the time – five years down the track when the next round of clearing needs to be done and, therefore the next round of offsets has to be started beforehand, there will be some ability to assess how – what the progress has been on earlier phases. And that's why I think the staged approach has that merit as well because if the goods are not being delivered then that could prove to be quite inconvenient to say the least, to a quarry operator.”

[124] That offset planting should commence prior to clearing commencing on the site and be commensurate with the evolving impact on the site was a matter recognised by both Dr Carrick and Dr Ellis in their second JER.¹³⁷

[125] The evidence concerning koalas has led me to the following conclusions:

- (i) The proposed development will result in the eventual destruction of in excess of 23,000 NJKHT and, as a direct consequence, will have a direct and adverse impact on the extant koala colony.
- (ii) Notwithstanding the philosophical starting point that the best solution is maintaining existing habitat, appropriate offsetting can result in a net benefit to the wider koala population in South-East Queensland.
- (iii) While mortality cannot be ruled out, given the relatively low koala population and the staging of the clearing of the site with proper onsite management (including koala spotting) that mortality rate, if not able to be eliminated, can be minimised.

¹³⁶ RT21-43, ll 38-47.

¹³⁷ Exhibit 18 p 8, para 10.1(f).

- (iv) In the event that the development were to be approved, that approval would be subject to a number of conditions of the type identified by both Dr Carrick and Dr Ellis and, in addition, conditional upon evidence of the securing of appropriate offset sites and a “head start” planting regime of the type identified by Dr Carrick. In this context it is also of significance that koala habitat would remain, by virtue of the intended buffer area and surrounding habitat areas.¹³⁸

Visual amenity

[126] The scale and nature of what would occur on the land has already been identified. I agree with Mr McGowan, relied on by the respondent, that, broadly speaking, the following aspects of the proposal are the most likely to generate impacts on the “visual environment”¹³⁹:

- Removal of vegetation and ridgelines.
- Visible structures (including acoustic barrier), plant and/or infrastructure.
- Visible benches or walls.
- Road upgrades and haulage movements along Old Coach Road.

[127] As to the last of those matters, I do not consider it to be of any real significance in the scheme of things. It is true that during the upgrading of Old Coach Road there will be unsightly roadworks and, upon completion, the introduction of a large number of haulage trucks. The roadworks will be, under either the full or partial closure options, only temporary and roadworks are but an inconvenient and unsightly but necessary product of urban living. In this context it is also of some relevance that at least for some, roadworks will be required on Old Coach Road sometime in the future. As to the haulage trucks, their visual presence will be intermittent, albeit regular, and, apart from those persons travelling on the road, visible to only a relatively few number of residents. Traffic noise of course is a separate issue.

[128] Broadly speaking, the visual impacts of the proposal has, in my view, three significant aspects. Its visibility to those living relatively close by, visibility from more distant view points and the visual impact on the green backdrop to the Gold

¹³⁸ E.g. see exhibit 1, p23.

¹³⁹ Exhibit 19A p 101, para 287.

Coast, the theme of which is the *green* (the hinterland) *behind the gold* (the sandy beaches).

[129] In their second JER, Mr Chenoweth and Mr McGowan agreed on a number of principles considered to be applicable in this case. They are, in no particular order of priority:¹⁴⁰

- Scenic preference ratings indicate that the community typically prefers views of bushland and rural scenery over views of development and landscape disturbance.

...

- Scenic preference ratings need to be considered in combination with the likely visibility of proposed development.
- Views which have structure and legibility (foreground, mid ground, background, focal points etc.) are preferred over poorly structured views, and views that take in diversity and a range of visual interests are preferred over simple outlooks.
- Panoramic views with a number of distinctive elements are more attractive and desirable than narrow view corridors or views of single elements.
- Viewing distances are an important factor affecting visual impacts – the greater the distance from the viewpoint, the smaller an object appears, the greater the field of view, and less discernible is the detail.

...

- To be clearly visible from this distance (20km) any changes to the site would need to be substantial (in scale) and of high contrast to the existing condition.
- Viewpoint (including private and public places) typically have primary views in one direction... and secondary views in other directions. Primary views are typically of greater value than secondary views.
- Views from public spaces... assume greater importance than private residential views. Although as a general principle, nobody has a 'right' to a view, private residential views (as well as public

¹⁴⁰ Ibid p 61, para 131.

viewpoints) are taken into account in visual impact assessment, especially where a planning scheme requires or encourages protection of such views.

- Understanding the significance of visual impacts depends on a number of considerations. In this case the most relevant are:
 - The nature and quality of the visual environment that will be affected...
 - The visibility of the proposal... and the number and sensitivity of visual receptors...
 - The magnitude of change that the proposal will impose on the visual environment... compared to development that is otherwise expected or intended to affect the visual environment.
- The sensitivity of particular receptors is typically dependent on a combination of factors including:
 - The type of receptor and the interest in the visual environment...
 - Accessibility of views and viewing opportunities...
 - The quality or extent of the view and the prominence of the subject site within the view...
 - Availability of alternative views.
- Impact magnitude and significance are evaluated for the proposal, with and without mitigation measures... based on variables such as:
 - The extent of the proposal that would be visible
 - The proportion of the visible parts of the proposal to the entire field of view
 - The nature and intensity of the impacts
 - Whether key features that would be obscured or affected
 - That (sic) would be obscured or affected
 - The geographic extent of the impacts

- The duration and reversibility of particular impacts, the likelihood of occurrence of impacts and the likely effectiveness of mitigation measures.
- In general, the acceptability of visual impacts should be considered in relation to both the existing condition of the site as well as the nature and extent of development which is reasonably expected to occur on the site... This hypothetical alternative is considered as part of a baseline visual environment against to which potential changes can be compared.

[130] Visual receptor sensitivity was then given three rankings: high, moderate and low. Examples of receptors falling into the high rating would include travellers along scenic routes or visitors to scenic lookouts and residents within 2.5km of the site with an interest in the landscape or particular views. Examples of those falling within the moderate rating would include travellers along road and rail routes within 2.5km of the site, which are not scenic routes but offer clear and quality views. Residents or workers beyond the immediate vicinity (2.5km – 6km) of the site with an interest in the landscape or particular views. Examples of those falling within the lowest category would be travellers along road and rail routes beyond 2.5km of the site which are not scenic routes but offer clear and quality views and residents or workers beyond 6km of the site where clear quality views to the site are achieved.¹⁴¹

[131] Visibility points or receptor groups and locations were identified in various documents.¹⁴² The closest receptor group is that located at Barden Ridge Road, Reedy Creek, being 0.2km from the disturbance footprint and the furthest being the Pacific Fair Shopping Centre at Broadbeach which is 9.1km from the proposed disturbance footprint.

[132] In their second JER, Messrs Chenoweth and McGowan expressed a number of opinions. Mr Chenoweth observed:¹⁴³

“A condition could be imposed such that staging is adjusted to allow for the terminal position of upper rock faces (those modelled as likely to become visible when Ridge J is removed) to be achieved earlier in the sequence, in order to revegetate these benches as early as possible, and allow maximum time for tree and shrub growth prior to the removal of Ridge J. Consideration should also be given to a

¹⁴¹ Ibid p 59.

¹⁴² E.g. Exhibit 19B and Exhibit 19A p 63.

¹⁴³ Exhibit 19A p 94, paras 268-269.

condition requiring that visual impact mitigation measures on the upper 5 or 6 benches be monitored and independently verified as showing satisfactory progress towards an agreed proportion of screening.

However, AC does not consider that a condition should be imposed to the effect that approval of stages Q3-Q5, including the removal of Ridge J, be conditional on the achievement of screening of quarry rock faces exposed in stages Q1 and Q2. In his opinion, the volume of rock to be excavated in stages Q3-Q5 should not be sterilised or deferred due to a relatively **minor risk that parts of the quarry rock face will be visible to a relatively small number of residents after 25-30 years of quarrying. Instead, he is confident that monitored trials on the existing Boral quarry and management of revegetation for 10 years or more on terminal QT benches on the subject site, will ensure that the quarry rock faces will not be visibly intrusive.** Additional assurance is provided by the viewing distance (>1.8km), the orientation of the rock face is such that they will be mainly in shadow, the retention of a forested skyline and the relatively small proportion of field-of-view which will be affected.” (Emphasis added).

[133] Mr Chenoweth expressed his conclusion in the second JER in the following terms:¹⁴⁴

“The impact on visual amenity arising from the visibility of the upper exposed faces, as seen from a limited number of residences at viewing distances of 1.4km, and only after many years of quarry commencement, and only after many years of quarry commencement, is considered to be relatively minor.”

[134] Mr McGowan disagreed:¹⁴⁵

“Whilst there seems to be a lack of clarity on when certain impacts may occur and for how long they may last (and thus a lack of certainty about the significance of some impacts), the assessment summarised in this report, and that prepared by Cardno for the EIS indicates that there is a clear risk of significant visual impacts for a fairly wide range and geographically broad visual catchment. It also indicates that the disturbance that will result from the project cannot be entirely hidden by the site topography and vegetation.

¹⁴⁴ Ibid p 97, para 278.

¹⁴⁵ Ibid p 102.

Many of these impacts, particularly those that result in the removal of high-valued natural landscape features (such as Ridge J and visible vegetation) and those that result in scarring of the natural landscape, are the type of impacts the planning provisions (identified above) attempt to avoid. Such impacts erode the landscape character of the city, impact on views and visual amenity, and ultimately affect the city's identity and sense of place. Whilst it is clear that other forms of development (that might occur if the quarry didn't proceed) may result in visible changes to the site, the planning provisions would ensure a much more sympathetic extent and form of development for the site's landscape qualities and result in far less visual impacts.

Regarding the types of impacts identified (for the proposal) I recognise that the project incorporates a range of measures which attempt to mitigate the magnitude of impacts (as summarised at s 3.5 above). I note also that a number of further mitigation measures have also been explored (resequencing excavation of potentially visible high walls, and performance controlling the rehabilitation process). I accept that, if these measures are appropriately employed (and particularly if the program of quarrying was contingent on achievement of particular screening/revegetation performance indicators) they could be effective in reducing impacts particularly in relation to visual impacts generated by the visibility of high walls and benches. I accept also that localised impacts (such as those from the acoustic barrier adjacent Barden Ridge Road; and potential impacts from the construction and traffic movements along Old Coach Road (could possibly be mitigated through more detailed design or more tailored mitigation measures).

As it stands however, these further mitigation measures have not been employed so there remains risk of visual impacts from visible high walls and benches, from acoustic barriers, and from the upgrade and traffic along Old Coach Road. **There also remains the significant impacts that will result in the removal of Ridge J and vegetated slopes which cannot be practically mitigated. As such the proposal as it stands would generate significant adverse visual impacts for a range of moderately and highly sensitive receptors....**" (Emphasis added).

- [135] It is clear that from the outset the appellant has expended considerable time, effort and money in trying to ensure that any visual impacts caused by the proposal, if not eliminated, are minimised. I also accept that the appellant would adopt best practices (as they evolve over time) to minimise visual impacts. I also accept that

the visual impact resulting from exposure to the quarry itself at the more distant receptors (e.g. Palm Beach, Miami and Elanora) could fairly be described as minor if not inconsequential.

Even in respect of more proximate receptors, many of the visual amenity issues identified could be largely addressed by the imposition of appropriate conditions; a matter Mr McGowan fairly acknowledged.¹⁴⁶ However, even with the best of intentions and practices, some residual visual impact would result. This was also accepted by Mr Chenoweth. In his court report under the heading “Conclusions” he summarised:¹⁴⁷

“In summary, the proposal is acceptable in terms of visual impact and landscape character changes because:

- (a) the subject land is a key Resource Area (KRA 96) designated for resource extraction;
- (b) the proposed operations have been planned to maximise the screening offered by the existing topography;
- (c) although the Burleigh Ridge (a complex series of forested ridges and hillside) has significant landscape value in the Southern Gold Coast, one of the secondary ridges (Ridge J) can be removed while still retaining the local ‘green backdrop’ and forested skyline;
- (d) most nearby and surrounding residents will be completely screened from view and will see no evidence of quarrying. The few residents who will see some part of the quarry rock faces will do so at a distance (at least 1.5km and up to 9km), only after several decades have elapsed and then only as a minor proportion of an extensive green backdrop of forested hills.”

[136] A number of matters arise out of those assertions by Mr Chenoweth. First, I fail to see the significance of the first two matters raised. They may provide some context or backdrop for the visual impacts but they do not address the extent and nature of impacts per se. As to the third and fourth of those matters, while it is true that the clearing of the disturbed area will be largely screened by the timbered buffer area and that the major ridgelines, Ridge R3 and Ridge I, will not be disturbed during the life of the quarry, all but the western most portion of Ridge J, the southwestern section of Ridge K and the whole of Ridge J4 will be removed.¹⁴⁸ Notwithstanding

¹⁴⁶ T5-72 ll 1-40.

¹⁴⁷ Exhibit 32 p 8.

¹⁴⁸ E.g. see Exhibits 53 and 62.

the retention of Ridges R3 and I, the removal of at least Ridge J would result in a removal of part of the “green backdrop.” That was a matter acknowledged by Mr Chenoweth, but, in his opinion, the loss was only “minor.”¹⁴⁹

[137] The removal of these ridges raises two other more significant issues which are inter-related. First, the exposure of benching to some receptors at or about 25-30 years. Second, it is clear that Mr Chenoweth underestimated the impacts on visual amenity that could occur during the earlier stages of establishment, development and construction (i.e. in the order of 5 to 6 years).

[138] It was revealed during the course of the cross-examination of Mr Chenoweth that he misinterpreted some of the data and, accordingly, underestimated the visual amenity ramifications associated with levelling the eastern section of Ridge J (J4). No doubt based on the EIS material and the input of Mr Chenoweth, during his opening Mr Gore said in part:¹⁵⁰

“...and your Honour will see the note above Ridge J ‘forested skyline of Ridge J to be retained for 25-30 years then removed.’ So the effect of the quarry development program is that Ridge J will be in place to mask the main quarry pit to the rest of it for 25-30 years, during which time the quarry bench faces which are developed. And your Honour sees to the right of the identification of Ridge I a note ‘terminal quarry bench face is 12m.’ And your Honour can see vegetation conceptually shown on the bench faces. Those benches will be revegetated during the 25-30 year period that we’re talking about.”

[139] The “concept” to which Mr Gore was referring, is represented diagrammatically in Figure A5 of Mr Chenoweth’s court report.¹⁵¹ To the right hand side of Figure A5 reference is made to “*views from old Burleigh Town for first 25-30 years of quarry operations – e.g. RECEPTOR 21 (65m AHD).*” The views from old Burleigh Town after Ridge J has been removed is also shown diagrammatically. That receptors to the east of the proposal (e.g. old Burleigh town) would not be exposed to any quarry benching for 25-30 years was revealed to be incorrect.¹⁵²

¹⁴⁹ T4-41; also T5-29 ll 10-17.

¹⁵⁰ T1-9, ll 5-14.

¹⁵¹ Exhibit 32, p 28.

¹⁵² T4-45 – T4-57 and T4-61.

[140] After referring to the relevant transcript passages, it was submitted on behalf of the respondent:¹⁵³

“...as cross-examination demonstrated, close analysis of the proposed staging details for the quarry... does not admit of that claim. And indeed, Mr Chenoweth eventually came to acknowledge that his ‘generalised’ figure doesn’t illustrate what is happening on the ROM pad and the benches behind it during the first five or six years (i.e. during the development and construction phase). It emerged that a benched faces (sic) of 150m length and 36m high above the ROM pad (itself at RL55) would be revealed by completion of stage D3 within 2 to 3 years of commencement and would remain visible for 12-14 years.”¹⁵⁴

[141] In the appellant’s supplementary reply, the following response was articulated:¹⁵⁵

“Visual Amenity

6. In paras 266-268, the Council raises issues about Mr Chenoweth’s prior appreciation of exposure of the benches behind the ROM pad. These submissions fail to take into account that Mr Chenoweth had dealt with the matter with clarity in the 2013 VIA. Figure 4-9 in the 2013 VIA showed both a plan view and a section view of those benches, and the text of the VIA explained:

‘(a) Development Phase D4

As shown in Figure 4-8 and Figure 4-9, the upper east-facing rock faces on the western side of the Plant Site (the south-eastern end of Ridge ‘J’) will progressively become visible from elevated parts of old Burleigh Town as Phases D3 and D4 are developed. The most visually prominent will be three 12m high fences stretching approximately 200m, with a total area of exposed rock face at D4 estimated at 8,000m² above 62m AHD, as follows (coded for cross-reference):

- *Face D4/62: the 12m face above a 150m long curved bench varying in elevation between 60 and 64m AHD at Phase D4;*
- *Face D4/74: above a 150m long curved bench varying in elevation between 72 and 76, AHD; and*

¹⁵³ Respondent’s written submissions p 74, para 268.

¹⁵⁴ See also at T4-61, ll 24 – 31.

¹⁵⁵ At p 2 paras 6-9.

- *Face D4/86: a short uppermost face above a bench varying in elevation between 84 and 88m AHD*

However because the benches and faces will be curved, and the upper rock face (below the hill crest) is shorter than the two below, it is unlikely that any single viewpoint will be within view of the entirety of all three faces. The upper rim of the cut hillside (Ridge 'J') will remain as a forested ridgeline (see Figure 4-9), and as seen from Old Burleigh Town the higher Ridge R3 behind will remain as a vegetated skyline."

7. Table 4-1 dealt with "visibility of quarry components from sensitive visual receptors", and with respect to the highest part of Fenton Drive (PP01) and Phase D4, recorded:

"Upper 3 faces on the western side of the ROM pad (above benches at average elevations of 62, 74m and 86m AHD) and wall behind stockpile platform; exposed from phase D3 (within 2-3 years of commencement) to Q3 (possible time of 14 years), then removed."

8. These features were dealt with in Mr Chenoweth's evidence, including that it would take about 5 to 6 years to reach stage D4.
9. Moreover, any visibility of these rock faces has no adverse impact on the proposal's compliance with s.3.5.5.1(10)(c) of CP 2016, because "*the green backdrop provided by ridgelines is not reduced...*", given that the upper rim of Ridge J will remain as a forested ridgeline, and the higher Ridge I and Ridge R3 behind (up to greater than RL150: ex.54) will remain as a vegetated skyline."

[142] Accepting the assertions of fact in paragraphs 6, 7 and 8 to be factually correct does not, in my view, make a significant difference to the extent of the concessions made by Mr Chenoweth in cross-examination nor to the consequences articulated in the respondent's written submissions to which I have just referred and largely accept.

[143] The evidence concerning visual amenity leads me to reach the following conclusions:

1. The visual consequences arising from the road works and haulage trucks are largely inconsequential in the greater scheme of things.

2. The visual impact on more distant receptors i.e. at or about 4 to 5km distance will be minor.
3. The visual impact of the noise amelioration fence will introduce a material visual impact to some of the residents in and users of Baden Ridge Road. However, over time with the maturity of screening, that impact will significantly reduce.
4. Even with the adoption of best practices, various physical elements of the quarry, in particular the processing plant and the quarry benches will be visible to a range of moderate to high receptors,¹⁵⁶ albeit over different time frames. Some receptors will not see the quarry benches for in the order of 25 years.
5. Notwithstanding that the retention of Ridges R3 and I will largely retain the impression of the “green backdrop”, particularly from more distant viewpoints, the removal of, in particular, Ridge J with its vegetated slopes, will result in a not insignificant alteration to the existing appearance of ridge lines west of the Pacific Highway. In this context I am unable to accept Mr Chenoweth’s evidence which was to the effect that, taking all relevant matters into account, the loss of Ridge J was a minor consequence.

[144] The consequences of these factual findings are dealt with below when dealing with the relevant planning instruments.

Hydrology, water quality, groundwater and soils

[145] An enormous amount of evidence has been gathered during the evolution of this proposal concerned with its impact, in the event that it were to proceed, on surface and groundwater behaviour, and the consequences that would flow therefrom. Consistent with that, during the course of this proceeding no less than 6 witnesses were called to address these matters. Mr Collins for the appellant and Mr Bristow for the respondent dealing with surface water. Messrs Briese, Shooter and Gimber for the appellant and Mr Sutherland for the respondent dealing with groundwater and soil.

[146] Leaving aside any dispute about whether a waterway was or was not also a “watercourse” for the purposes of the *Water Act 2000* (a dispute it is unnecessary to

¹⁵⁶ Refer to Exhibit 57.

resolve for the purposes of this proceeding), it is beyond dispute that the proposed development would result in the loss of a material number of waterways.¹⁵⁷

[147] To the east of Ridge R3, and between Ridge I and Ridge J, runs Oyster Creek. To the east of Ridge R3 and to the north of Ridge J runs Stony Creek. In the context of this proposal, Oyster Creek is the most significant watercourse and it, to a significant extent, flows in a west to east direction in close proximity to the southern side of disturbance footprint.¹⁵⁸

[148] It was agreed that by 1 to 2 km downstream the effect of the proposed quarry on waterway flow would be insignificant irrespective of whether an environmental flow release strategy was implemented or not.¹⁵⁹

[149] In the JER of Mr Collins and Mr Bristow, Mr Bristow reported:¹⁶⁰

“...the development proposes to significantly change the hydrological regime of Stoney (sic) Creek and Oyster Creek and as a consequence will likely have a negative impact on the habitat of the attendant creek line ecology due to a change in water supply for those habitats.”

[150] This was a view repeated by Mr Bristow in his court report.¹⁶¹ Mr Collins did not disagree with Mr Bristow’s opinion that the proposal would significantly change the hydrological regime of Stony Creek and Oyster Creek. Indeed, he seemed to accept that assessment but then went on to consider whether the existing environmental flows could be artificially replicated. In this context, he said:¹⁶²

“However, based on the environmental flow analysis I have carried out, there is ample water capacity in the site water supply dam to provide dedicated environmental flow releases, in a variety of forms to a range of locations across the site, if this is deemed to be required by the Court. Similarly, additional piping can be installed to allow additional releases to Oyster Creek in the south and less additional flow to Stoney Creek in the north, if there is concern about additional release days and volumes to the northern catchment.”

¹⁵⁷ See e.g. Exhibit 54 and Exhibit 59 pp 40 and 48.

¹⁵⁸ Exhibit 20, p 279.

¹⁵⁹ Ibid p 17, para 8.

¹⁶⁰ Ibid p 29.

¹⁶¹ Exhibit 59 p 26.

¹⁶² Exhibit 20 p 30.

[151] That alternate environmental flow options existed seemed to be a matter of agreement.¹⁶³

“Despite the divergence in views of the groundwater experts, we agree that there is sufficient on-site water supply and a range of delivery options to enable environmental flow releases (if required) to both the Stoney Creek (sic) catchment and the Oyster Creek catchment if deemed necessary to provide additional ecological water supply to either of these site catchments...”

[152] By reference to the court reports of Mr Collins and Mr Bristow, it is clear that there were many areas of agreement, and that the key areas of disagreement were more concerned with what descriptions ought be given to the waterways and how environmental flow discharge ought be addressed. In his court report under the heading “Conclusions”, Mr Bristow reported:¹⁶⁴

“The extent of watercourses on the site has been understated and in my opinion an additional 1100-1200m of watercourses in both the Oyster Creek catchment and the full length of Stony Creek should be acknowledged.

The proposed quarry development will change the hydrological regime of the catchments of Stony Creek and Oyster Creek.

This change in basic terms will reduce the water supply to the creek riparian communities by approximately 40%.

The change will reduce the peak flows in the catchment though not duration and form of the flood flows.

The pit provides a significant detention capacity and coupled with the quarry water supply dam, will capture sufficient water to meet the quarry water supply needs and have water available for return to attempt to reconcile the change in hydrological regime.

It is likely that with detailed design and ongoing monitoring and maintenance, the hydrological regime can be replicated.

The current proposal and suggested environment return flows do not replicate the hydrological regime. At best they will see increased annual flows to Stony Creek of 76% over the pre-existing condition and 62 flow days caused by dam overflows. Oyster Creek is more

¹⁶³ Ibid p 20.

¹⁶⁴ Exhibit 59, p 26.

balanced at 11% increase in annual flow volumes, with only 6 flow days due to overflows.

The proposal to return environmental flows to the head of Stoney Creek as a pump flow during the life of the quarry is supported.

The proposal to return environmental flow to Oyster Creek part of the way along its length as pumped is not supported.

A diffuse flow returned into the northern slope of Oyster Creek from the confluence with stream OT4 to the extent of the watercourse at OT9, would better mimic the water supply to the creek riparian community.”

[153] Mr Collins, in his court report, stated:¹⁶⁵

“My key conclusions are as follows:

1. (Mr Bristow) and I agree on several key items related to the aforementioned aspects of the project including:
 - (a) water quality-related matters have been (or can be) appropriately addressed in existing or appropriately revised documentation;
 - (b) the effect of the proposed quarry on waterway flows is insignificant by 1 or 2km downstream of the site; and
 - (c) the water supply dam can provide environmental flow releases (to mitigate hydrologic impacts from the proposed quarry).
2. DB and I disagree on the following topics:
 - (a) the way by which potential environmental flow discharges to Oyster Creek should be provided;
 - (b) whether waterways within the extent of the proposed works are watercourses.”

[154] As I have already indicated, the second point of disagreement identified by Mr Collins is not one that has to be resolved in this proceeding. As to the first matter, I am sufficiently satisfied that an appropriate alternate environmental flow regime could be designed and implemented to the satisfaction of both Mr Collins and Mr Bristow. The quarry dam where water would be stored and from which environmental flows would be distributed is situated between the disturbance area and Stony Creek.¹⁶⁶

[155] For the reasons given, my conclusions concerning the evidence of Messrs Collins and Bristow is as follows:

¹⁶⁵ Exhibit 33, p 13.

¹⁶⁶ E.g. see Exhibit 20 at p 279.

1. A material number of waterways will be destroyed as a consequence of the proposal.
2. The loss of those waterways will have a significant detrimental impact to the hydrological regime of the catchments of Stony Creek and Oyster Creek.
3. It is more likely than not that the existing hydrological regime could be replicated.
4. The effect of the proposal on waterway flows is insignificant within 1 or 2km downstream of the site.

[156] The ramifications of these conclusions are dealt with in more detail when dealing with the issues of the environmental/ecological consequences and conflicts with the respondent's planning schemes.

[157] Turning then to the question of groundwater, four witnesses gave evidence on this topic. Messrs Brieze, Shooter and Gimber for the appellant and Mr Sutherland for the respondent. In their first JER the following issues in dispute were identified:¹⁶⁷

“Issue 1

The potential for groundwater draw down beyond the site boundary and subsequent impacts on mapped or (otherwise) acid sulphate soils...

Issue 2

The presence of pyrite in the rock (to be quarried or otherwise impacted) and the potential for associated acid generation otherwise known as ‘acid mine drainage’ and the potential associated water quality management and product impacts...

Issue 3

Near surface groundwater impacts and the potential for interactions with site water courses and effect on associated soil profiles and seepage zones...

Issue 4

Surface water and groundwater impacts and the potential for effects on mapped or unmapped Groundwater Dependent Ecosystems and Wetlands within and beyond the site and effects on proposed site management measures...

Issue 5

¹⁶⁷ Exhibit 21, pp 1 and 2.

Surface water, groundwater and recharge and the potential for changes to the near surface hydrological regime and contributions to downgradient systems beyond the site...”

[158] Issues 1 and 2 are no longer matters of dispute. In relation to the remaining three issues, while there was a significant level of disagreement between the experts about the extent of the impacts that might result from the alteration to the groundwater regime caused by the quarry, there was agreement that insofar as there were harmful environmental consequences, engineering solutions could be put into place to address those consequences. In their second JER Messrs Briese and Shooter and Mr Sutherland, under the heading “Points of Disagreement” recorded:¹⁶⁸

“There are a number of points of disagreement between us (as articulated in our appendices 5 and 6 (relating to specific aspects of soil mapping and near surface groundwater movement. However, we agree that there are solutions to overcome these differences, they may not be considered to be significant by others.

Given that we have explored, in detail, solutions overcoming each issue, our differences, to an extent, may fall away.

We consider that adopting this approach in preparing this joint report is the best way that we can, collectively assist the court.”

[159] During Mr Sutherland’s cross-examination, following a number of questions, it was put to Mr Sutherland:¹⁶⁹

“**Q:** Yes. So it’s fair to say, is it not, Mr Sutherland, that it’s your position that provided the court imposes a condition or conditions which reflect the solution that’s described in the JER, or some agreed or determined equivalent, you don’t point to any reason for refusal of this application from within your field of expertise?

A: That’s correct.”

[160] The “conditions” referred to by Mr Gore are set out in paragraph 24 of the second JER. It is unnecessary to set them out here. According to the respondent, if I were to decide that the quarry should be approved, the solution/conditions identified in paragraph 24 of the second JER should be imposed on the basis that a precautionary approach was warranted, as it would “*remove uncertainty by establishing whether there is a change to the downslope hydrological regime that warrants mitigation,*

¹⁶⁸ Ibid, p 10, [38]-[40].

¹⁶⁹ T16-33, ll 10-15.

and provides for appropriate introduction of measures to return water to the landform, if warranted."¹⁷⁰

[161] It was submitted on behalf of the appellant that the conditions were unnecessary, having regard to the evidence of Messrs Briese, Shooter and Gimber. The key point of difference between the experts for the respective parties centred around the nature and behaviour of groundwater within the subject landform. Or, to adopt the words of Mr Sutherland, "*The way in which water moves through the soils in the landscape on the subject land.*"¹⁷¹

[162] According to Mr Sutherland:¹⁷²

"On this site, the extremely weathered material between the soil and the parent rock (or saprolite) overlies rocks of varying densities and permeabilities. The saprolite, or extremely weather material between the soil and the underlying rock, potentially acts a significant water store and movement pathway downhill."

And,¹⁷³

"Depending on the number and frequency of rainfall events, water flows as 'pulses' of soil moisture moving through the profile, as wetting fronts. It is for this very reason that drainage is often deliberately introduced into soil profiles to intercept and manage such wetting fronts."

[163] Mr Briese, with the advantage of the evidence of Mr Shooter, strongly disagreed with Mr Sutherland's opinions. For reasons that will become apparent below, it is not necessary for me to finally resolve the competing views of Mr Sutherland and Messrs Briese and Mr Shooter. However, for the sake of completeness I would observe that, on balance, I prefer the evidence of the latter experts. In my view, their opinions were supported by more thorough and logical investigation, and their evidence was not materially shaken in cross-examination. On the other hand, I found some aspects of the evidence of Mr Sutherland, on some apparently important matters, to be somewhat unconvincing. In his evidence in chief, Mr Sutherland relied, at least in part, on the shape of certain trees located on the land as supporting his theory¹⁷⁴ and on the presence, or lack thereof, of other vegetation.¹⁷⁵ Insofar as

¹⁷⁰ Respondent's written submissions at [446].

¹⁷¹ Exhibit 52, p 41.

¹⁷² Exhibit 51, p 68, [79].

¹⁷³ Ibid, at [35].

¹⁷⁴ Exhibit 52, p 98: T16-9, ll 24-47 – T16-10.

Mr Sutherland's reliance on vegetation is concerned, I much preferred the evidence of Mr Francis concerning the explanation for the presence, or otherwise, of vegetation and, in particular, his more likely explanations for the existence of "kinked" trees on the land.¹⁷⁶

[164] I also found Mr Sutherland's evidence dealing with an existing dam/pond located in the western section of the land to be less convincing than the explanation provided by Mr Briese. In his court report Mr Sutherland stated:¹⁷⁷

"...this dam is located on the top of a ridge line and has a small upstream catchment with little surface water inflow. The pond/dam water levels do not appear to exhibit significant fluctuations. These features, together with the hydrochemistry, indicate to me that this pond/dam is groundwater fed." [Footnotes omitted].

That proposition was repeated by Mr Sutherland in his evidence in chief.¹⁷⁸

[165] According to Mr Briese, it was highly improbable that the pond/dam was groundwater fed. That was so for at least two reasons. First, the groundwater would have to effectively flow uphill.¹⁷⁹ The second was that the electrical conductivity of the water was more consistent with the pond/dam being rain-fed than being sourced from groundwater.¹⁸⁰ Mr Briese gave evidence critical of Mr Sutherland's theory concerning the pond/dam,¹⁸¹ which Mr Sutherland heard firsthand or had his attention drawn to prior to him giving evidence. During the course of his cross-examination, it was suggested he found Mr Briese's evidence to be "convincing". Mr Sutherland responded:¹⁸²

"What I would do is probably— I'll be responsive and say 'not quite.' I have an enormous amount of respect for Mr Briese, but my point remains this is an unusual feature which you wouldn't normally expect to see in a landform. That the chloride in the dam is pretty much the same as it was a year previously. I accept that the dam receives surface water from rainfall. But in my careful examination of the catchment feeding into that dam, it's very small and it's too— too small to consistently maintain that level within the dam, in my view. Now, I'm saying that based on aerial photographs. I don't

¹⁷⁵ T16-11 – T16-12.

¹⁷⁶ T17-58 – T17-60.

¹⁷⁷ Exhibit 52, p 17.

¹⁷⁸ T16-15, ll 15-28.

¹⁷⁹ Mr Briese's supplementary report: Exhibit 100, pp 11-12.

¹⁸⁰ Ibid.

¹⁸¹ T13-25 – T13-28.

¹⁸² T16-53, ll 5-28.

know– there’s no data that I’ve seen looking at the fluctuation in the dam which would influence that conclusion. But the– every time– if you look at an aerial photograph, it appears to be full all of the time, which is unusual in itself. It’s a very unusual position in the saddle in the landform, and the chloride results indicate to me that it– it does have a component of groundwater in it, and depending on the amount of surface water reporting to that dam, those– those ratios may change. **So I’m not– I’m not dismissing Mr Briese’s proposition that he says it’s impossible; it’s just that I have a different view.**” (Emphasis added).

[166] Mr Sutherland was then asked, “*Where would the water be coming from?*” and he responded:¹⁸³

“Well, that– that I don’t know. I suspect there’s a contribution of groundwater into that dam, and I suspect that there’s some surface water run-off feeding it– sorry, direct rainfall feeding it as well, as well as what is now a very small catchment on the western side.”

[167] Later in his cross-examination, Mr Sutherland seemed to not want to put too much weight on the dam, considering it to be “*part of the jigsaw (that) adds weight to my conclusion and I’m not putting it any higher than that. I would like more data.*”¹⁸⁴

[168] Finally on this topic, I should record the respondent’s position concerning hydrology. Insofar as CP 2003 is concerned it was asserted that while engineering solutions for restoring flows in Oyster Creek and Stony Creek may exist, “*that does not change the fact that the evidence in relation to surface water demonstrates that a significant proportion of waterways...will be obliterated by the development footprint.*” It is then asserted that the “obliteration” of so many waterways is the “antithesis” of what CP 2003 contemplated.¹⁸⁵

[169] In dealing with CP 2016, the respondent submitted:¹⁸⁶

“Council’s position on matters of hydrology in connection with CP 2016 may also be shortly stated.

It may be accepted that evidence in relation to surface water now demonstrates that acceptable outcomes in terms of water quality, including downstream of lot 105 can be achieved. That will require,

¹⁸³ T16-53 ll 32-35.

¹⁸⁴ T16-55, ll 23-24.

¹⁸⁵ Written submissions at [432]-[435].

¹⁸⁶ Ibid, [436], [437] and [438].

for example, that the erosion and sediment control plan and overall site storm water management plan be reworked...

And subject to the implementation of appropriate engineered solutions, flows can be restored in Oyster Creek and Stoney Creek.”

- [170] The respondent’s written submissions then go on to contend that notwithstanding the existence of engineering solutions, the impact on the waterways was in “stark conflict” with the objects of CP 2016. The issue of that asserted conflict is dealt with below.

Terrestrial ecology

- [171] In total the experts concerned with terrestrial ecology were involved in the preparation of no less than four JERs. The appellant relied on Mr Francis who addressed terrestrial flora and Mr Agnew in respect of terrestrial fauna. The respondent relied on Dr Watson who addressed both flora and fauna. It should also be noted that terrestrial and aquatic ecology was also extensively examined not just for the purpose of this proceeding, but also during the EIS coordinated projects material and the Commonwealth approval phases. As to the latter, Dr Watson accepted that generally speaking, the Commonwealth tended to scrutinise the potential environmental impacts associated with projects such as this carefully.¹⁸⁷
- [172] Not surprisingly, all three experts were concerned about the impact the proposed development might have on groundwater dependant ecosystems (“GDE’s”) and riparian ecosystems outside the disturbance footprint.
- [173] Insofar as the GDE’s were concerned they agreed that provided adequate remedial practices and procedures were adopted to redistribute hydrological flow, it would be “unlikely” that the proposal would have an adverse impact on those ecosystems. In their third JER it was recorded:¹⁸⁸

“In summary, we accept the agreement by the experts in Soils and Groundwater that the contribution of regional groundwater to the GDE’s (sic) and wetlands on and immediately adjacent to the site can safely be discounted, i.e. the quarry is unlikely to have an adverse impact on the groundwater supply to those GDE’s (sic).

¹⁸⁷ T20-41.

¹⁸⁸ Exhibit 27 p 149, paras 2.1.1.13 – 2.1.1.15.

We also accept that there are mechanisms available to redistribute hydrological flows through the landscape, to a number of communities/ecosystems not necessarily only related to mapped GDE's and wetlands. These measures are reported to have the potential to maintain the hydrological regimes within the catchment. However, **JW** notes that the proposed 'mechanism to redistribute hydrological flows' has not been confirmed and, as identified by **DB**, does not address all the hydrological requirements of the catchment and or ecosystems. I accept that modifications, as suggested by the hydrological experts, has the potential to assist in appropriately maintaining the hydrological regime.

We acknowledge that the aquatic ecology experts are likely to provide further comment with respect to GDE's. Our conclusion regarding mapped GDE adverse impact is based on our understanding of the agreement reported within the Soils and Groundwater JERs.”

[174] That there was similar agreement in respect of the riparian ecosystems was less than clear.¹⁸⁹ While Dr Watson seemed prepared to accept that provided appropriate remedial steps were taken, impacts on the wider riparian ecosystems may be unlikely, he remained concerned about the more proximate ecosystems. In his court report Dr Watson stated:¹⁹⁰

“The buffer (setback) to Oyster Creek is narrow, and given changes to the local topography... the ecosystems associated with the creek will be modified, with a loss of integrity and biodiversity. It is also noted that there is no buffer (setback) to any of the drainage lines associated with Oyster Creek as these areas will be removed for the quarry.

The term 'edge effects' refers to a variety of degrading effects which have potential to occur within a zone of disturbance from the outer edge of a habitat area. Ecosystem degrading impacts (e.g. changes in nutrient levels, exposure to solar radiation and wind) change the dynamics of the community and in turn alter the faunal and floral assemblages...

The quarry and associated infrastructure will create an edge between existing vegetation/habitat and the development. In regards to the quarry, the staging over time (decades) will create new habitat edges associated with the progression of each major phase.

¹⁸⁹ Ibid pp 149-152.

¹⁹⁰ Exhibit 48, pp 7-8 paras 37-42 and 48.

Changes to the vegetation community due to the significant landform changes will exacerbate edge effects, which will change vegetation structure and composition...

As noted by the EIS Reports, State mapping and ground truthing (site observations), these communities are not common and provide a diversity of habitat and resources for fauna and flora. These communities are dependent on a number of factors, soil moisture being one. In addition to understanding the soil water mechanics, it is important to note that the proximity of the proposed disturbance footprint to the drainage lines/creeks, not only has the potential to exacerbate the impacts to and losses of soil moisture, but also increase edge effects and compromise the functioning of associated ecosystem.”

- [175] At one stage Dr Watson seemed to be suggesting that the “literature” indicated that there should be a 250m setback or buffer between the disturbance footprint and Oyster Creek to “*conserve the broadest suite of bird species...*”¹⁹¹ The proposed setback is 30m from the northern bank of Oyster Creek. On balance I found Dr Watson’s evidence on this topic to be somewhat confusing in parts but, at the end of the day, consider that **his** concerns would be met with a buffer or setback from the centreline of Oyster Creek of 150m. That figure is comprised of 100m of buffer/setback plus a further 50m to address “*the edge effects.*”¹⁹² However, even that figure seemed to be within “*a range which might assist in achieving a balance.*”¹⁹³
- [176] For reasons given below, it is not necessary for me to finally determine what the appropriate setback from Oyster Creek should be. That said, I can see no basis, having regard to the definition of “edge effects” given by Dr Watson, for increasing a 100m buffer by an additional 50m. It is also of significance that the Council’s own requirement is that the setback be no less than 30m, a matter acknowledged by Dr Watson.¹⁹⁴ Also, notwithstanding Dr Watson’s explanation for the situation at the Hansen (Wolfdene) quarry, I consider the evidence that a 50m buffer was thought to be adequate there to be of some relevance. While expressing no final view on the

¹⁹¹ T21-3, ll 5-15; T20-36, ll 25-30.

¹⁹² T20-27, ll 2-15; T21-5, ll 1-46; T21-6, ll 1-44.

¹⁹³ T21-6, L 22.

¹⁹⁴ T21-6, L 15.

matter, it strikes me that an appropriate buffer width would be no less than 30m and up to 50m+ in more sensitive areas.

[177] While acceptable terrestrial outcomes would in all likelihood be achieved outside the disturbance footprint, with the notable exception of the pair of white bellied sea eagles, to use the respondent's language, the existing landscape within the disturbance footprint would be effectively "obliterated". Or to use the words adopted by Mr Francis, the removal of the ridgeline "*would irreversibly alter the landscape.*"¹⁹⁵

[178] The impact on the environment within the development footprint could only be described as catastrophic. Not only would ridgelines and gullies disappear, but so would a number of waterways and in the order of 30,000 trees including 23,000 NJKHT and other vegetation.

[179] In the second JER, Mr Agnew stated:¹⁹⁶

"There is no apparent disagreement that the 66 ha development footprint supports habitat for a variety of native fauna and species of significance. Similarly, there is no apparent disagreement that 151 ha buffer supports habitat for native wildlife, threatened fauna and species of local significance."

Elsewhere in the JER, Mr Agnew said:¹⁹⁷

"Whilst the proposed disturbance footprint (66 ha) does support habitat which may be used by threatened fauna, the dominant habitat – advanced dry sclerophyll regrowth – does not support high quality conditions and/or resources for those species. The proposed development will result in habitat loss, though on balance, it is concluded that the proposed retention and management of habitat within the buffer area (151 ha) would be sufficient to maintain ongoing habitat values for those species previously recorded within – or considered likely to occur within – habitats of the site."

[180] It is of course significant that the balance area would be sufficient to maintain ongoing habitat values but that does not alter the fact that more than 60 hectares of habitat that may be used by native fauna and species of significance will be lost, even if it is of an inferior quality to the balance area. Later in the JER, Mr Agnew expressed the opinion that the quarry footprint would not result in a significantly

¹⁹⁵ T19-13, ll 36-42.

¹⁹⁶ Exhibit 27 p 107, para 7.2.1.16.

¹⁹⁷ Ibid p 108, para 7.2.1.17.

different outcome to fauna when compared to a development outcome that might be delivered under the Reedy Creek Structure Plan, which extends over an area in the order of 76 ha. I cannot agree with that conclusion. Proposed development under that plan would not see the destruction of ridges, gullies and waterways nor the clearing of 20,000 plus NJKHT.

[181] Turning then more particularly to flora, Mr Francis acknowledged that the existing drainage lines and creeks involve floristic diversity.¹⁹⁸ As already identified, Mr Francis also accepted the obvious, namely that if developed the quarry will irreversibly alter the existing landscape.

[182] Finally in respect of this topic, I am satisfied that threatened species (the Slender Milkvine) and all locally significant plant species that do or might exist are capable of being translocated and propagated within the balance buffer area and that the balance buffer area will be better managed under management plans that will address, among other things, landscape rehabilitation, bushfire risks and feral animals etc.

Aquatic ecology

[183] The aquatic ecologists, Dr Thorogood for the appellant and Ms Thorburn for the respondent prepared three JERs.¹⁹⁹ Under the heading “matters of disagreement” Dr Thorogood and Ms Thorburn said:²⁰⁰

“We disagree on:

- The significance of the permanent loss of ephemeral drainage lines/waterways;
- The nature and significance of impacts to aquatic ecology, both on-site and immediately downstream of the site, as a result of changes to hydrology;
- (Potentially) the significance of impacts to groundwater (including on areas that may be surface-expression groundwater-dependant ecosystems (“GDEs”)); and
- The degree/extent to which the project will offset negative impacts to aquatic ecology, and result in benefits to downstream waters.”

¹⁹⁸ T19-9, ll 19-28.

¹⁹⁹ Exhibit 28.

²⁰⁰ Ibid p 23, para 37.

- [184] As was the case with the terrestrial ecology experts, Dr Thorogood and Ms Thorburn needed to have regard to the conclusions reached by the hydrology and groundwater experts. In their third JER, they set out their “revised views” flowing from a consideration of the opinions of those experts. That JER was particularly concerned with changes to the magnitude and pattern of flow in both Oyster and Stony Creeks with and without mitigation scenarios and, of course, the ecological consequences of predicted changes in flow of both Oyster and Stony Creek.
- [185] During his cross-examination, Dr Thorogood summarised the three areas of disagreement of significance. First, the value or significance of the waterways and wetlands that would be or potentially could be affected by the proposed development. Second, the likelihood and severity of changes to the hydrologic regimes of Oyster Creek and Stony Creek as a result of the removal of that part of their upstream catchment which would become the quarry pit. Third, the significance of the benefit (if any) of the mitigation works which would be carried out by the appellant and, in particular, the benefit of reinstating and repairing riparian habitat resulting from improved water quality.²⁰¹ Dr Thorogood’s summary was accepted by the respondent.
- [186] In my view, only the first of the three matters identified by Dr Thorogood is of any real consequence in the circumstances of this appeal. That is so for the following reasons. First, for reasons already given I am sufficiently satisfied that catchment flows lost by the development of the quarry could be replaced, albeit artificially. Second, as was identified when dealing with the topic of hydrology, water quality and groundwater, the effect of the proposal on waterway flows is essentially insignificant by 1 or 2km downstream of the site. And, while debate may still exist about the extent of the downstream benefits that might result from the water quality control measures proposed by the appellant, it is tolerably clear that there will be some water quality benefits.²⁰² Or, perhaps more significantly, no adverse impacts.
- [187] During the course of his cross-examination by Mr Fynes-Clinton, Dr Thorogood was taken to various extracts from the aquatic ecology report prepared in the EIS process.²⁰³ In that report, it was said:²⁰⁴

²⁰¹ T27-6; respondent submissions at para 290.

²⁰² For example in the lower eastern area near Oyster Creek where illegal 4 wheel drive activity occurs.

²⁰³ Exhibit 5 V5, p A3165.

²⁰⁴ Ibid p 3302.

“The current condition of freshwater aquatic ecosystems within the project area are generally in the moderate to good condition, and consistent with the ecological condition of aquatic ecosystems throughout the wider catchment.”

[188] Later in the report²⁰⁵ the biological values of the aquatic ecosystems were described as being “*moderate to excellent and consistent with those of the wider catchment.*” A description Dr Thorogood agreed seemed to be a more “glowing endorsement.”²⁰⁶

[189] After being referred to those descriptions, Dr Thorogood said that he would prefer to place greater weight on the more detailed studies. After making that observation, the following exchange took place:²⁰⁷

Q: Alright. And we’ll get to those. But just – you’re not – or just in terms of what appears on page A3292, if one were to accept the proposition that the subject site had aquatic ecological values which were moderate to excellent, one would necessarily accept the proposition that the site, as an aquatic ecologist, and forgetting about other things, one would necessarily accept the proposition that the site is one worthy of conservation and protection?

A: Firstly, I would encourage you not to take particular sentences and seek to build a picture around those out of the context of the balance of material ---

Q: So do I ignore moderate to excellent? I don’t mean to catch you up. I don’t want to waste time?... I’m sorry. Do I just ignore the conclusion on page A3292 that the biological values of aquatic ecosystems are moderate to excellent?

A: No, I’m not saying you should ignore it.

Q: Right?

A: But I am encouraging you to read that in the context of the other material that’s been presented, and come to a conclusion based on the balance of that material, the increasingly detailed justifications and explanations that are provided.

Q: Alright?

A: But that’s my first response. My second response, that is more directly to your question, is that if that

²⁰⁵ At p A3292.

²⁰⁶ T27-23, ll 38-45.

²⁰⁷ T27-24 to T27-25.

was accepted, as it were, at face value, would it then justify the conservation of those waterways?

Q: Well, my question to you specifically was as an aquatic ecologist... and for the moment ignoring anything else. If land possessed those characteristics, namely, moderate to excellent biological values... that would be land which is worthy of conservation and protection?

A: Well, I'd encourage you to then read the following clause of that sentence, because there it indicates that whatever the qualities are exhibited by the waterways on site, they are consistent with those of the wider catchment, and that's something that the further more detailed work that I've been involved in supports... and indeed Ms Thorburn has expressed an opinion that supports that... And on that basis we'd return to the conclusion that what's on site is not exceptional.

Q: No?

A: So, on what justification do we conserve it? If we look at the guidelines, for example, that, you know, various government agencies and instruments promulgate, one of the things we would be looking for is that it is not just great, but its better, or a particularly good example of its type. And I don't think there's anything in the whole of the material that I've been involved in presenting that suggests that's the case.

...

Q: Right. But if something is – on your approach, if something is merely an example of habitat which has ecological values, but those values are shared over a much larger area than the particular parcel you're focusing on, is not, in itself, worthy of conservation or protection?

A: I think that's correct. What you've put to me... doesn't justify its conservation per se.

Q: Alright. And is that because the habitat has no value, or because there will be lots more of the same habitat leftover?

A: Well, I think just following the train of thought that we have been pursuing, if this is the particular criteria we're considering, our reason for – in that column of the ledger, so to speak, for not – not favouring conservation, would indeed be that it is not

– sorry. That it is well represented beyond the project site.”

[190] As Dr Thorogood acknowledged, the quarry footprint would result in the destruction of approximately 2.5km of “*ephemeral drainage lines and waterways*” which “*by definition... are at times aquatic habitat.*”²⁰⁸

[191] In her court report,²⁰⁹ Ms Thorburn seemed to take strong exception to Dr Thorogood’s description of the waterways being ephemeral; that is, only lasting or existing for a few days, or to use her words, “*only flowing for a matter of days each year.*” Ms Thorburn said:²¹⁰

“These assumptions have influenced the surface water and groundwater impact assessments which have both assumed (based on advice from Dr Thorogood and his team) that the waterways on the site are ephemeral, only flowing for a matter of days each year, and that there is no base flow in the waterways. This advice has affected the way that models have been developed and the assessment of groundwater impacts.

My evidence as presented in this report does not support the above paradigm. Rather, my observations, supported by the results of site surveys, indicate that:

- The proposed development footprint contains minor (stream order 1 and 2) tributaries to Oyster and (to a lesser extent) Stony Creeks that are in good condition and have a diverse range of aquatic habitat types. **These tributaries have small pools and flows for a period of days to weeks after rainfall**, which support aquatic species including diverse macroinvertebrate communities that contain some sensitive taxa...” (Emphasis added).

[192] As already identified, while Dr Thorogood did not consider that the waterways to be lost held “exceptional” biological value, he was prepared to accept a range of between moderate to excellent. Also, apart from the lower areas of Oyster Creek affected by illegal 4 wheel drive activity, I did not take Dr Thorogood’s evidence to be at odds with the description of the waterways being in good condition and providing a diverse range of habitat.

²⁰⁸ T27-31 ll 44-46, T27-32 ll 1-5.

²⁰⁹ Exhibit 51, p 36.

²¹⁰ Ibid paras 87 and 88.

- [193] As to Ms Thorburn's assertion that the waterways/tributaries are anything other than ephemeral but have "*small pools and flows for a period of days to weeks after rainfall*", the evidence does not support such a conclusion. Indeed, in this context I found Ms Thorburn's evidence to be somewhat confusing. At the very outset of her cross-examination and in the JER process, she was prepared to accept that the waterways on the site were ephemeral,²¹¹ a description not only accepted by the respondent's counsel during the cross-examination of Dr Thorogood but also in its written submissions.²¹² As I understand it, the term "ephemeral" does not necessarily exclude pooling and small stream flows for days after a significant rain event,²¹³ but it would exclude flows "for weeks" after such an event.
- [194] Ms Thorburn also agreed that there were no matters of national environmental significance relevant to aquatic ecology that would be affected by the proposed development. And, that there were no matters under the State Planning Policy, or matters of state environmental significance including rare or threatened aquatic species, relevant to aquatic ecology that might be affected by the proposed development.²¹⁴
- [195] I also accept that there was no meaningful evidence that the removal of the waterways within the disturbed area would have anything other than a negligible effect on the downstream macroinvertebrate and fish communities referred to by Ms Thorburn. A matter about which she seemed to agree.²¹⁵ Also, while I accept the caveat placed by Ms Thorburn, the evidence (such as it is) strongly indicates that no endangered vulnerable or near-threatened species of aquatic flora or fauna have been recorded from or are likely to occur in the waterways of the disturbed area.²¹⁶
- [196] By reference to the matters dealt with above, the evidence makes it tolerably clear that the destruction of the waterways within the disturbed area will not have any meaningful effect on downstream aquatic flora and fauna and that the aquatic flora and fauna within those waterways are not of themselves so unique or exceptional to warrant a strong preference or desire for conservation. That said, the inescapable conclusion is that the loss of some 2.5km of waterways will remove habitat or

²¹¹ T29-59 L 1.

²¹² At para 289.

²¹³ Ibid para 305.

²¹⁴ T29-58 ll 35-43.

²¹⁵ T29-64 ll 6-20.

²¹⁶ T29-64 ll 22-40.

otherwise destroy aquatic ecosystems within the disturbance footprint which could be described as falling within the range of moderate to excellent.

The planning documents and conflict

[197] Pursuant to s 80 of the SPA, a planning scheme is a statutory instrument under the *Statutory Instruments Act* 1992. Accordingly, the construction of planning documents must begin with the consideration of the text used and the application of the ordinary principles of statutory interpretation. As was observed by Muir JA in *Meridien AB Pty Ltd v Jackson*²¹⁷ the starting point for those principles may be extracted from the judgment of the High Court in *Alcan (NT) Alumina Pty Ltd v Commissioner of Territory Revenue (Northern Territory)*²¹⁸:

“This court has stated on many occasions that the task of statutory construction must begin with a consideration of the text itself. Historical considerations and extrinsic materials cannot be relied on to displace the clear meaning of the text. The language which has actually been employed in the text of legislation is the surest guide to legislative intention. The meaning of the text may require consideration of the context, which includes the general purpose and policy of a provision, in particular the mischief it is seeking to remedy...” (Citations omitted).

[198] However, as has been repeatedly recognized, planning schemes need to be read as a whole and as intending to achieve a balance between often conflicting desirable outcomes. In 2010, Rackemann DCJ said:²¹⁹

“The Court has taken a similar approach to the interpretation of provisions dealing with other kinds of impacts.

This approach is also consistent with the well settled principles of construction of planning schemes, which are largely the work of town planners, not parliamentary counsel. Those principles include that they should be construed broadly, rather than pedantically or narrowly and with a reasonable, practical approach. Given the nature of planning schemes, it should not readily be inferred from the absence of an express qualification that the relevant provision requires no impact at all, no matter how insubstantial, trivial or insignificant. That applies even though a qualification may be expressed in other parts of the planning document....” (Citations omitted).

²¹⁷ [2013] QCA 121.

²¹⁸ (2009) 239 CLR 27 at [47].

²¹⁹ *Newing v Silcock* [2010] QPELR 692 at [62] – [63].

[199] In 2010 the Court of Appeal in *Lockyer Valley Regional Council v Westlink Pty Ltd*²²⁰ said:

“...phrases such as ‘maintain and preserve’ and ‘preserve and enhance’ must be read in context and bearing in mind that when any development occurs some amenity impairment will generally result... planning schemes should be construed broadly, rather than pedantically or narrowly, and with a sensible, practical approach...”
(Citations omitted).

[200] To a similar effect was the judgment of the Court of Appeal in *Zappala Family Co Pty Ltd v Brisbane City Council*²²¹:

“The fact that planning documents are to be construed precisely in the same way as statutes still allows for the expressed view that such documents need to be read in a way which is practical, and read as a whole and as intending to achieve balance between outcomes...”
(Citations omitted).

[201] Bearing those principles in mind, it is then necessary to turn to the issue of conflict. Allegations of conflict with the planning schemes loom particularly large in this case. Indeed, the appellant concedes that there is conflict with CP 2003²²² and more will be said about that below. In this context, s 326(1) of the SPA relevantly provides:

“326 Other decision rules

- (1) The assessment manager’s decision must not conflict with a relevant instrument unless—
 - (a) the conflict is necessary to ensure the decision complies with a State planning regulatory provision; or
 - (b) there are sufficient grounds to justify the decision, despite the conflict...”

Here of course, this court stands in the position of the “assessment manager”. Sufficient grounds for the purposes of s 326(1)(b) means matters of public interest and does not include the personal circumstances of an applicant, owner or interested party.²²³

²²⁰ (2011) 185 LGERA 63.

²²¹ (2014) 201 LGERA 82 at [56]; see also *Savage v Cairns Regional Council* (2016) 214 LGERA 192.

²²² T34-3 ll 35-44.

²²³ SPA Schedule 3.

[202] In *Weightman v Gold Coast City Council*²²⁴ Atkinson J (with the other members of the court agreeing) said:

“In order to determine whether or not there are sufficient planning grounds to justify approving the application despite the conflict, as required by s. 4.4(5A)(b) of the P & E Act, the decision maker should:

1. Examine the nature and extent of the conflict;
2. Determine whether there are any planning grounds which are relevant to the part of the application which is in conflict with the planning scheme and if the conflict can be justified on those planning grounds;
3. Determine whether the planning grounds in favour of the application as a whole are, on balance, sufficient to justify approving the application notwithstanding the conflict.”

[203] In addition to articulating the necessary “tasks” to be considered in cases involving conflict, Her Honour said:²²⁵

“The proposal must be refused in such a situation if there are not sufficient planning grounds to justify the approval *despite the conflict*. **The discretion, as White J observed in *Grosser v Council of the City of Gold Coast* is couched in negative terms, that is, the application must be dismissed unless there are sufficient grounds. This is a mandatory requirement. If there is a conflict, then the application must be rejected unless there are sufficient planning grounds to justify its approval despite the conflict. The primary judge wrongly held that it was directory only...**

The **first task** required of the decision maker, as the learned primary judge recognised, is to **consider the nature and extent of the conflict**. The conflict may be minor or major in nature or indeed anywhere on the continuum between those two extremes. The conflict in this case is a major one, arising as it does from an absolute prohibition on the height of any development exceeding the maximum stipulated height of three storeys...

The **second** question the decision maker has to consider is whether there are any **planning grounds** on which to approve, or which militate against approval of, that part of the application which is in conflict with the planning scheme. The nature and extent of the conflict may be such as to suggest that there are significant planning considerations against that part of the application.

²²⁴ [2003] 2 Qd R 441 at [36].

²²⁵ At paras [35]-[37], [44]-[46].

The decision maker should then **consider other aspects** of the development and determine whether they are consistent with proper planning grounds. Those are the planning grounds which apply whether or not the conflict exists.

It is only after consideration of all of these matters that the decision maker is able properly to assess whether or not the planning grounds in favour of the application as a whole are, on balance, sufficient to justify approving the application notwithstanding the conflict.”
(Emphasis added)

- [204] In *Woolworths Ltd v Maryborough City Council (No 2)*²²⁶ Fryberg J (with McMurdo P and Holmes J as she then was agreeing), when considering the then provisions of s 3.5.14 of the *Integrated Planning Act*, expressed the view that “conflict” in this context means to be at variance or disagreement with and, that in resolving a contest between conflict and grounds of justification, it may not be necessary for the decision maker to formally identify and set out each area of conflict and that “*the purely mechanical application of the Weightman dictum should be avoided...*”
- [205] More recently the Court of Appeal endorsed the three step approach adopted in *Weightman* in *Lockyer Valley Regional Council* where it was said:²²⁷
- “The Council’s attempt at construing *Weightman* so as to add another layer of explication to Atkinson J’s explanation of the section (in its earlier form) should be rejected. There is no warrant in s 3.5.14(2)(b) itself for applying different weight to different grounds. To do so would be to impose an entirely artificial set of fetters on the decision-making required. The importance of the ground must depend on what it is, not where it falls in the three-step approach in *Weightman*.”
- [206] The section referred to in *Lockyer Valley* is a reference to the relevant provision under the then *Integrated Planning Act 1997* which has been repealed and replaced by s326 of the SPA.
- [207] In *Australian Capital Holdings Pty Ltd v Mackay City Council & Ors*,²²⁸ in considering a section under the then *Local Government (Planning and*

²²⁶ [2006] 1 Qd R 273 at [55].

²²⁷ [2012] QCA 370 at [21].

²²⁸ [2008] QCA 157 at [60].

Environment) Act 1990, which was to materially the same effect as s 326 of the SPA, the Court of Appeal said:

“The primary judge, having concluded that there were conflicts with ‘relevant strategic plan(s)’ was required to decide if there were ‘sufficient planning grounds to justify approving the application despite the conflict.’ In this case that exercise required the identification of ‘planning grounds’; an assessment of the role and importance to the planning scheme of the provisions which would be infringed should the application be approved; the adverse consequences, if any, which might flow from such infringement and the competing merits and weight of the planning grounds relied on to justify approval...”

[208] However, it is equally well recognised that this court should adopt a “*self-limiting approach, at least when considering town planning matters...*”²²⁹ That it is not the function of this court to substitute planning strategies has also been stated in a number of cases. In *Elan Capital Corporation Pty Ltd & Anor v Brisbane City Council & Ors*²³⁰ the court said:

“It should not be necessary to repeat it but this Court is not the Planning Authority for the City of Brisbane. It is not this Court’s function to substitute planning strategies (which on evidence given in a particular appeal might seem more appealing) for those which a Planning Authority in a careful and proper (sic) has chosen to adopt.... Adopting the phraseology of those cases which deal with non-derogation (sic) principle, I feel that to allow this appeal would be to, ‘cut across’, in quite (sic) unacceptable manner, a planning strategy which has been adopted by the Planning Authority and publicly exhibited for community comment.”

[209] In *Australian Capital Holdings Pty Ltd v Mackay City Council*, Muir JA (with Holmes JA, as she then was and White J, as she then was, agreeing), after citing with approval a number of cases and, in particular, *Grosser v Council of the City of Gold Coast*²³¹ also went on to cite with approval the reasoning of Jerrard JA in *Leda Holdings Pty Ltd v Caboolture Shire Council & Ors*.²³²

“Those authorities were cited to show that conflict between a development application and strategic plan was often fatal to the application, even prior to the introduction of s 4.13(5A) and its

²²⁹ *Grosser* at [38].

²³⁰ [1990] QPLR 209 at 211.

²³¹ At [55].

²³² [2006] QCA 271.

counterparts in 1992...(As has been said repeatedly, this Court is not the planning authority for this area and it is my view that it would be inappropriate for the court to approve a proposal which is squarely in conflict with the formally expressed planning strategies of that authority...the Strategic Plan and the Strategic Plan Map are legitimate planning tools adopted by a Local Authority for the future planning of the Local Authority Area. The Local Authority in those circumstances is planning ahead and endeavouring to direct its future planning process in an orderly manner...The Court has however, repeatedly stressed the importance of strategic planning and the need to respect and support the integrity of the important planning tool which the Strategic Plan is. There may be cases where a departure from the Strategic Plan could be justified; where, for example, the planning strategies which it represents, having been overtaken by events (or for some other reason), clearly no longer have any application; or where it can be demonstrated plainly the land has been given a designation on the basis that was and remains invalid... (The significance of strategic planning, particularly on rezoning applications, has been recognised by the Court on many occasions. Since the forward planning documents of a Local Authority are indicative of the intent of a planning authority as to the future preferred form of development that it sees for its Local Authority area, considerable weight ought to be given to the provisions of forward planning documents of a Local Authority).” (Citations omitted).

[210] After a consideration of the nature of the conflict, the sufficient grounds asserted on behalf of the developer and the relevant case law his honour concluded that the “*considerations, taken in combination, warrant the conclusion that the primary judge failed to apply the principles referred to...above and thus erred in law.*” Accordingly his Honour concluded that the appeal ought to be allowed and the decision of the primary judge set aside.²³³

[211] White J (as she then was) after agreeing with the reasons for judgment of Muir JA in *Australian Capital Holdings* went on to say:²³⁴

“(I) agree with his Honour in finding that there were insufficient planning grounds to justify approval of the development application by the Judge below departing, as he did, from the well-established principle that a planning court ought not substitute its own preferred planning strategies in place of carefully developed schemes of the

²³³ At [69].

²³⁴ At [73].

planning authority, particularly where the schemes have recently been reviewed.”

CP 2003

[212] That the appellant concedes conflict with CP 2003 is not surprising, given that under that scheme and, in particular, the Reedy Creek Structure Plan, CP 2003 essentially provided for residential development consistent with residential development of the type already existing, and otherwise focused on recognising and protecting the environmental qualities and features of the subject land. Under CP 2003 the land had the following designations:

- (a) Planning strategy:
 - (i) Part Urban Residential Land Use Theme;
 - (ii) Part Park Living Land Use Theme; and
 - (iii) Part Open Space/Nature Conservation Land Use Theme;
- (b) Domain:
 - (i) The Emerging Communities Domain and in particular, the Reedy Creek Structure Plan Area.
- (c) Under the RCSP, the subject land fell within:
 - (i) The Urban Residential Precinct;
 - (ii) Part Park Living Precinct; and
 - (iii) Part Open Space/Nature Conservation Precinct;
- (d) The subject land was also the subject of the following overlays:
 - (i) Natural Wetland and Waterway Areas; and
 - (ii) Conservation Strategy Plan.

[213] Given the appellant’s concession concerning CP 2003, I do not consider it necessary to particularise each and every conflict. It is sufficient to identify that, under the relevant Table of Development 3.0 for the Emerging Community Domain, which, read in conjunction with Part 5, Division 1, Chapter 2, s 4.6.1, identified that the proposal would be considered as being an undesirable and/or inappropriate outcome for the land. That the proposed development would result in an undesirable and/or inappropriate outcome immediately places it in serious and significant conflict.

[214] The appellant does not shy away from such a categorisation of the level of conflict, but instead submits to the effect that CP 2003, insofar as it impacts on the subject land, should largely be ignored, notwithstanding the fact that it was the planning scheme in force at the time the application was lodged.

[215] It will be recalled that the appellant's application for a development permit for a material change of use to establish the quarry was lodged with the respondent on 19 May 2014. On 11 July 2014, the respondent refused the application and the appellant lodged its appeal on 11 August 2014. CP 2016 came into force on 2 February 2016.

[216] After referring to State Planning Policy 2/07 ("SPP 2/07") which identified the subject land as a Key Resource Area ("KRA 96"), the appellant then went on to say that CP 2003 was not amended so as to identify that KRA. The appellant then submitted:²³⁵

"As noted above the 2003 PS was never updated so as to reflect that the subject land had been designated as a KRA as required by the state planning documents.

In this regard it is relevant that when dealing with the provisions of the 2003 PS, the Coordinator-General's evaluation report states:

'As the Gold Coast City Council has not amended the planning scheme in accordance with SPP 2/07 and the SEQRP, the town planning assessment identified conflicts within the land use themes presented in the planning scheme.'

This is relevant to the nature and extent of conflicts with provisions of the 2003 PS.

The provisions in the SEQRP and the SPP prevail over the 2003 PS to the extent of any inconsistency." (Footnotes omitted).

[217] Under the heading "Implementing SPP 2/07", that policy provided:²³⁶

"SPP 2/07 will influence land use planning and development decisions within KRAs. In particular, it will help shape planning schemes of local governments with KRAs in their areas.

While SPP 2/07 endorses the **principle** of extractive industry development in a resource/processing area of a KRA and identifies appropriate transport routes, development applications for new extractive industry operations in a KRA will be subject to the normal assessment process under the 'Integrated Development Assessment System' (IDAS).

²³⁵ Written submissions paras [177]-[180].

²³⁶ Exhibit 3, Tab 1 p 4.

Therefore, the assessment would include not only SPP 2/07, but also detailed consideration of the relevant environmental, amenity and traffic policies and the requirements in the applicable local government planning scheme and other relevant considerations under IDAS... People will continue to have the opportunity to make submissions on development applications that are subject to impact assessment, and those submissions must be considered in the assessment.

Accordingly, SPP 2/07 **does not** guarantee that a particular development application for an extractive industry in a KRA will be approved. However, of the 100 KRAs listed by the policy, 90 already have current extractive industry development approvals, and the SPP can be used to protect these KRAs from incompatible development where such development is not already committed.

Reflecting the SEQ Regional Plan

This State Planning Policy is consistent with the SEQ Regional Plan, which aims to protect extractive resources for potential future extraction and their associated transport corridors. The SEQ Regional Plan relies on the SPP to provide the detailed basis for achieving this aim.”

[218] Under the heading “APPLICATION OF THE POLICY”²³⁷, SPP 2/07 went on:

“State Planning Policy and State Planning Policy Guideline

- (1) The State Planning Policy... is a statutory instrument under the *Integrated Planning Act 1997*...
- (2) The State Planning Policy Guideline... provides advice about implementing the Policy, and is declared to be extrinsic material under the *Statutory Instruments Act 1992*...
- (3) Under the *Integrated Planning Act 1997*, the policy has effect when development applications are assessed, when planning schemes are made or amended and when land is designated for community infrastructure...
- (4) Terms used in the Policy and the Policy Guideline have the same meaning as defined in the *Integrated Planning Act 1997*...”

[219] In December 2013, SPP 2/07 was replaced by SPP 2013 (“SPP 13”) which was intended to replace a “dozen” separate policies and to provide “*a clear consolidated and comprehensive view of the State’s interest in land use planning and*

²³⁷ Exhibit 3, Tab 1, p 5.

development in one place.” It also purported to deal with 16 State interests arranged under five “broad themes”:

- Liveable communities and housing;
- Economic growth;
- Environment and heritage;
- Hazards and safety; and
- Infrastructure.

[220] Of significance is that the policy does not prioritise one state interest over another at a state-wide level.²³⁸ That this is so is consistent with a number of other elements of the policy. By way of some examples:

“...it encourages flexible and locally appropriate approaches to planning that reflect the state’s interests while meeting the needs and priorities of local government and their communities.”²³⁹

And

“Interests will not always be applied in the same way in a state as large and diverse as Queensland, and there may even be differences in how interests are integrated within a local government area.... The SPP articulates a number of different state interests and associated policies – in some circumstances these interests will compete or even conflict. Therefore, specific regional and local circumstances must be considered when determining how to resolve these at a local level.”²⁴⁰

And

“It is the responsibility of local government in preparing a planning scheme, to firstly consider all of the state interests and the SPP in its entirety. The local government must then determine which state interests are relevant to it, and determine how best to apply these interests in a planning scheme. Where the state’s interests can be met using a range of methods, local government is encouraged to apply alternative, innovative and performance-based approaches that provide the necessary certainty and meet local and regional circumstances.”²⁴¹

[221] Under the heading “Mining and Extractive Resources” it also provided:²⁴²

²³⁸ Exhibit 3, Tab 5, p 10.

²³⁹ Ibid at p 6.

²⁴⁰ Ibid at p 10.

²⁴¹ Ibid.

²⁴² Ibid p 23.

“The resources industry is a key driver of the Queensland economy and the state’s largest export earner...

The supply of extractive resources such as sand, gravel, rock, clay and soil is essential to the health of the construction industry and the delivery of infrastructure. **Given the high-volume, low-value nature of extractive resource products, it is generally necessary to source extractive resources close to markets. Such locations are often also subject to encroachment from sensitive land uses.**

The state has an interest in ensuring that mining and other resources activities are considered in land use planning.... This interest acknowledges that development decisions will require the careful consideration of competing interests.” (Emphasis added).

- [222] Following SPP 2/07, but prior to SPP 13, the South East Queensland Regional Plan 2009 – 2031 was introduced (“SEQRP”).²⁴³ A relevant principle under the SEQRP was to:

“Manage the region’s natural economic resources to sustainably and efficiently meet the needs of existing and future communities.”²⁴⁴

It was also said:²⁴⁵

“State Planning Policy 2/07: Protection of Extractive Resources (“SPP 2/07) ensures the long-term availability of extractive resources of state or regional significance, and provides the basis for identifying and protecting key resource areas in local government Planning Schemes. Future iterations of SPP 2/07 and local government Planning Schemes will continue to identify and protect the additional resources required to ensure supply. **Planning Schemes must define relevant and use zones in a way that permits resource development where appropriate.**” (Emphasis added).

- [223] Bearing those policies and plans in mind, it was submitted on behalf of the appellant:²⁴⁶

“The conflict that arises must be viewed having regard to the following:

- (a) s.25 of the *SPA* which states that if there is an inconsistency between a SPP and a local planning

²⁴³ Exhibit 12.

²⁴⁴ Ibid p 68.

²⁴⁵ Ibid p 69.

²⁴⁶ At paras 932-940.

- instrument, the SPP prevails to the extent of the inconsistency;
- (b) s.36 of the *SPA* which states that if there is an inconsistency between a regional plan and a local planning instrument, the regional plan prevails to the extent of the inconsistency;
- (c) the 2003 PS is inconsistent with the single SPP and the SEQRP as it does not reflect the designation of the subject land as a KRA under the single SPP and an Extractive Resource Area under the SEQRP and accordingly has been overtaken by events.
933. Any conflict between the quarry project and the 2003 PS is a direct result of the fact that the 2003 PS has not been amended to reflect that the SPP and SEQRP in this regard.
934. A plain reading of the 2003 PS confirms that it is inconsistent with the single SPP and the SEQRP as it does not reflect the designation of the subject land as a KRA (under the single SPP) and an Extractive Resource Area (under the SEQRP).
935. It appears to be accepted by the Council that the 2003 PS is inconsistent with the single SPP and the SEQRP having regard to the following matters...
- ...
937. The 2003 PS is also relevantly inconsistent with CP 2016.

[224] That CP 2003 ought be effectively ignored or given little weight, was said to be so for three reasons:

- (i) the failure to take into account relevant State policies and plans;
- (ii) that by the time following from that CP 2016 becomes the more dominant scheme because *“it reflects, if you like, compliance with the most recent thinking”*²⁴⁷;
- (iii) because it would be unfair to permit the respondent to rely on CP 2003 in circumstances where that would be tantamount to allowing the respondent to take advantage of a “wrong”. That wrong being the failure to incorporate and apply the relevant State policies and plans.

[225] In respect of the last of those matters, I was referred to the judgment of Cullinane J (with McMurdo P and Holmes JA (as she then was) agreeing) in *Quinn Villages Pty Ltd v Mulherin*²⁴⁸ where his Honour said:

“Whilst the respondent in argument on this issue relied upon *Mackay v Dick* and his Honour referred to this judgment in his reasons, it seems to me that in dealing with this matter he invoked a broader principle, namely that a party cannot take advantage of its own non-compliance with the contract.

This principle has the support of high authority and is of long standing and predates *Mackay v Dick*...” (Citations omitted).

[226] The relevant passage from *Mackay v Dick* is as follows:²⁴⁹

“as a general rule..., where in a written contract it appears that both parties have agreed that something shall be done, which cannot effectually be done unless both concur in doing it, the construction of the contract is that each agrees to do all that is necessary to be done on his part for the carrying out of that thing, though there may be no express words to that effect. What is the part of each must depend on circumstances.”

[227] During final submissions, Mr Gore in this context submitted as follows:²⁵⁰

“...this court doesn’t leave ordinary principles behind, and one that’s very important to this case is that – and it pervades all areas of the law – is that ‘a person cannot take advantage of their own wrong’ or, as it is sometimes put, ‘a wrongdoer cannot advantage from its own conduct’, and I’ll give your Honour a decision of the Court of Appeal shortly that deals with that, a case where it was applied in the context of a contractual provision.

That might be its most ordinary area of operation – that a party to a contract can’t take advantage of its own wrong, but it applies in other areas of the law – in the law of negligence, for example. ‘*Volenti non fit injuria*’ is really Latin for, you know, you can’t take advantage of your own wrong. If you take on a wrongful course of conduct and you get hurt, that’s your problem... I was going to come to equity. You must come – ‘he who comes to equity must come with clean hands’, and it is buried under that basic principle. I’ll give your Honour that case now. It’s not in our bundle, but it’s a decision of the

²⁴⁸ [2006] QCA 433 at [23] and [24].

²⁴⁹ (1881) 6 App Cas 251.

²⁵⁰ T34-7 ll 7-47.

Court of Appeal in *Quinn Villages*... Your Honour might recall from university days the Council here failed to comply with its obligation under the *Integrated Planning Act* to amend its 2003 Planning Scheme to bring it into line with the regional plan...”

[228] In my view, the misconduct argument must fail. *Quinn Villages* and the cases referred to therein are dealing very much with the situation under the law of contract. Further, with respect, I do not consider the equitable principles relied upon are applicable. *Volenti* is concerned with the ancient principle “to a willing person it is not a wrong.” That is, a person who is not wronged by that to which he or she consents.²⁵¹ That maxim cannot apply here. Turning then to the “clean hands” maxim it is more concerned with, generally speaking, the court, as a matter of public policy, refusing to grant relief to those involved in intentional bad conduct. Here, while not finally deciding the matter, it seems to me that it would be highly unlikely that a local government authority would fall as accountable under this doctrine or maxim in circumstances where it is not seeking relief but seeking to defend a decision made *prima facie* in the best interests of its constituency. There may well have been a failure to comply with the *Integrated Planning Act*, but this is not a case where there has been a course of deliberate, deceptive and/or illegal conduct.

[229] As to the second matter relied on by the appellant it was, broadly speaking, agreed with by the respondent. It was acknowledged that CP 2016 is “*deserving of weight*” for a number of reasons.²⁵² In this context, the respondent did not take issue with Mr Gore’s observation that the proper construction to be given to s 3.5.1(10) of CP 2016 “*on each side’s case, is central to the outcome.*” Indeed, Mr Litster said:²⁵³

“...and, your Honour, then may take into account, and in our submission, you should take into account – you should take into account 2016. It is the most recent statement of planning intent not only by the Council but also by the State Government. Because the State Government has said about that scheme that it integrates the State interest.... But it’s the latest statement about the forward planning intentions for the Gold Coast. And you would seriously consider that it is something that you would not look to cut across in the context of making a decision in this case.”

²⁵¹ Black’s Law Dictionary, 10th Ed. p 1805.

²⁵² Respondent’s written submissions at pp 3-4.

²⁵³ T33-14 ll 17-30.

I agree. The proper construction to be given to CP 2016 is a critical matter in the context of this proceeding.

[230] Before proceeding, I should finally deal with the appellant's submissions concerning the operation of ss 25 and 36 of the SPA:

“25 Relationship with regional plans and local planning instruments

If there is an inconsistency between a State planning policy and a regional plan or local planning instrument, the State planning policy prevails to the extent of the inconsistency.”

And

“36 Relationship with other instruments

...

(2) If there is an inconsistency between a regional plan and a local planning instrument, the regional plan prevails to the extent of the inconsistency.”

[231] Section 314(d) of the SPA also relevantly provides:

“314 Impact assessment—generally

(1) This section applies to any part of the application requiring impact assessment.
 (2) The assessment manager must assess the part of the application against each of the following matters or things to the extent the matter or thing is relevant to the development—

...

(d) State planning policies, to the extent the policies are not identified in—
 (i) any relevant regional plan as being appropriately reflected in the regional plan; or
 (ii) the planning scheme as being appropriately reflected in the planning scheme;”

[232] As the respondent quite properly acknowledged, it was uncontroversial that CP 2003 did not reflect SPP 2013 within the meaning of s 314(2)(d) of the SPA, and that the application ought properly have been assessed under that policy to the extent that it was relevant.²⁵⁴

²⁵⁴ Respondent's written submissions at paras 47-48.

[233] The significance and relevance of SPP 2013, and its precursor SPP 2/07 is identified in the SEQRP 2009-2031.²⁵⁵ As already identified, it expressly provides for the need to identify and protect key resource areas. It also provides that:²⁵⁶

“...future iterations of SPP 2/07 and local government planning schemes will continue to identify and protect the additional resources required to ensure supply. Planning schemes must define relevant land use zones in a way that permits resource development **where appropriate.**” (Emphasis added).

[234] The inescapable conclusion is that CP 2003 is in direct conflict with SPP 2013. Neither SPP 2013 nor the SEQRP attempt to prioritise any particular state interest and recognise that the advancement of some of these interests are very likely to cause tension with other interests (e.g. economic growth v protection of environmental assets). That said, the Reedy Creek Structure Plan under CP 2003 not only failed to protect the subject key resource area, it effectively ignored its existence. Significant parts of the quarry area itself was designated for low-density urban residential and park living development.²⁵⁷

[235] As I understood the position of the respondent, it was contended that there was no genuine conflict between the CP 2003 and the SPP 2013 and/or the SEQRP,²⁵⁸ as,

“An assessment under the CP 2003 without regard to SPP 2013 would have proceeded on no different basis than the assessment which is to be carried out under both SPP 2013 and CP 2003.”

and,

“Consistent with assessment against SPP 2013, SEQRP requires recognition of the existence of the recourse and its consideration as part of the present assessment. Nothing in the SEQRP is inconsistent with CP 2003.”

[236] I cannot accept that argument for the reasons given. Accordingly, I consider CP 2003 and, in particular, the Reedy Creek Structure Plan to be, while still of some relevance, far from being a determinative matter. That is to be contrasted with the situation concerning CP 2016 which, to use Mr Litster’s words, “*is the most recent*

²⁵⁵ E.g. Exhibit 12 p 69.

²⁵⁶ Exhibit 12 p 69.

²⁵⁷ By way of example compare Exhibit 11B pp 31-35 and p 39 with Exhibit 10B at p 49.

²⁵⁸ Respondent’s written submissions at para 68.

statement of planning intent not only by the Council but also the State Government... because... it integrates the State interest... ” (i.e. SKRA 96).²⁵⁹

- [237] Under the CP 2016 Strategic Framework, the subject land is identified as:
- (a) Designated Urban Area: Non-Urban Area;
 - (b) Settlement Pattern: Natural Landscape; and
 - (c) Focus Areas for Economic Activity: **Non-Committed Resource Areas.** (Emphasis added).

- [238] The subject land is also included within the Rural Zone and under that zoning, also within a specific Landscape and Environment Precinct. It is also identified in the following mapping overlays:²⁶⁰

- (i) Environmental Significance Overlay - Biodiversity Areas;
- (ii) Environmental Significance Overlay - Priority Species;
- (iii) Environmental Significance Overlay - Vegetation Management;
- (iv) Environmental Significance Overlay – Wetlands and watercourses;
- (v) Extractive Resources Overlay.

- [239] To the extent that the proposal would be in conflict with CP 2016, that conflict is manifestly more serious under CP 2003. That is so because under the current Planning Scheme, the key resource area is at least recognised. Under the “Extractive resources overlay map – map 4” KRA 96 is identified as a “resource area/processing area”, the balance of the subject land as a “separation area” and Old Coach Road to the north as a “transport route” and a “100m transport route separation area.”²⁶¹

- [240] According to Mr Litster, while the proposal was the “antithesis” to the objectives under CP 2003, the resource was now preserved for future use if required. At one stage Mr Litster even went so far as to say that even today a smaller quarry use might be approved by the respondent. During final submissions, the following exchange took place between myself and Mr Litster:²⁶²

“Q: In that context then, there’s a distinct difference between the subject land as treated under City Plan 2003 and 2016.

A: Yes.

²⁵⁹ T33-14 L 20; also T33-42 ll 1-24.

²⁶⁰ Exhibit 11B.

²⁶¹ Exhibit 11B, p 34.

²⁶² T34-14 ll 33-46; T33-15 ll 1-45.

- Q:** But we heard from the town planners – and I forgot which town planner it was, probably Mr Buckley – and I – or at least it was a response to a question from me, because the – Boral’s town planner effectively said: ‘if I don’t approve this site for quarry use, it’ll be – that resource will be lost forever.’ Mr Buckley said ‘not so’, because under its current designation – City Plan 2016... it’s a protected resource.
- A:** It is.
- Q:** But that then begs the question, doesn’t it, because the additional criticism is a valid one in the sense that it’s never going to get any easier, with the passage of time, for Boral to quarry the site.
- A:** Well, with the greatest respect, we don’t – it may not get any easier to quarry the site with a quarry the size they want to undertake on the site. Don’t forget they determined that they wanted to design the quarry so that they’d fall within the 5mm per second vibration line at the closest residence... They’ve pushed to the limit on that point. Maybe something else...
- Q:** Maybe something that keeps ridge J in place, is that what you’re...
- A:** Well, something that may, in fact, keep parts of ridge J in place and is invisible would meet the test. Something – now, part of the problem here, however, is, of course, because there’s a matter of state environmental significance, or matters of environmental significance, on the land. We didn’t – that wasn’t known before this case. It was mapped as Koala habitat. But the extent and – of the Koala habitat trees – as long as you have koala habitat trees – weren’t known until Mr Saunders did his transects. You see, it would have – it is quite possible – it would have been quite possible, potentially, that there was no part – there were parts of the land that are not affected in that fashion. And in that circumstance, if you developed in those, it might be possible to meet the test of

conserve, protect, enhance... and manage the matters of environmental significance.

Q: But the in situ component --- is going to be the enquiry.

A: Well, it is on what we know now; it is on what we know now. But that may be something that has to be revisited at the time that the scheme comes up for review. The State may well say: 'no, no. We think that the balance has fallen away from biodiversity on that site and should favour the--- the resource or otherwise.' But until such time as a change is made to the scheme, the resource is protected..."

[241] As to the potential approval of even a smaller quarry, having regard to the way the respondent conducted its case in this proceeding, it would be difficult for any such application to be approved during the life of CP 2016. That is, it is difficult to imagine that even with a smaller quarry that maintained all or part of Ridge J, while perhaps meeting the visual amenity criteria, it would otherwise fall foul of the respondent's concerns about koala habitat, terrestrial and aquatic ecology, traffic and noise etc.

[242] Turning then to some of the more relevant provisions of CP 2016 itself. In the Introduction to the scheme, after identifying that it was prepared in accordance with the SPA "*as a framework for managing development in a way that advances the purpose of the Act*", it then goes on to identify that while the plan has been prepared with a 20 year horizon, it was intended to be reviewed to ensure that "*it responds appropriately to changes of the community at a local, regional and state level.*" In this context, reference is made to relevant state planning policies and the SEQRP.²⁶³

[243] Relevant to this proceeding, CP 2016 has two components. State planning provisions and the strategic framework. In the introduction to the strategic framework it is identified that it is intended to set policy direction that will help to "*protect and enhance the Gold Coast outstanding lifestyle by ensuring appropriate and sustainable development occurs within the City Plan area for the life of the City Plan.*" The introduction then goes on to identify six "*City shaping themes that play an important role in shaping the future growth and managing change across the city, and collectively represent the policy intent of the City Plan:*

²⁶³ Exhibit 11A p 2.

- (i) *creating liveable places;*
- (ii) *making modern centres;*
- (iii) *strengthening and diversifying the economy;*
- (iv) *improving transport outcomes;*
- (v) *living with nature;*
- (vi) *a safe, well-designed city.*²⁶⁴

[244] Strategic outcomes include that “*natural resources are sustainably managed for current and future generations and leveraged to support the growth of nature based tourism in a sustainable manner.*”²⁶⁵

[245] Section 3.5.5 of the strategic framework is concerned with the element of natural resources. Pursuant to s 3.5.5.1, the relevant specific outcomes are:²⁶⁶

- “(1) The prudent use of renewable and non-renewable natural resources supports long-term community needs and only occurs where any immediate or long-term environmental and social impacts can be managed to an acceptable level.
 - (2) Natural resource areas of economic value and associated haulage routes are protected from encroachment by activity that would compromise the ability to utilise the resource effectively and sustainably. Natural resource areas of economic value include:
 - (a) rural production areas...
 - (b) extractive resource areas (**committed and non-committed**).

...
 - (7) **Committed and non-committed extractive resource areas** and their associated haulage routes are protected from encroachment from incompatible development. Surrounding development minimises views into resource areas.
 - (8) **In committed areas**, the extraction and haulage of the resource protects environmental values on the land **as far as practicable prevent significant impacts** on nearby sensitive users including the use of appropriate separation areas/buffering; **and does not scar vegetated ridgelines and elevated land** when viewed from outside the resource area.
- ...

²⁶⁴ Ibid p 15.

²⁶⁵ Ibid p 61(9).

²⁶⁶ Ibid pp 69-70.

- (10) **In the non-committed areas at Reedy Creek...** operations only extend into the non-committed areas if it can be demonstrated that:
- (a) the amenity of nearby residential land is **maintained**;
 - (b) critical corridors are accommodated and matters of environmental significance **are conserved, protected, enhanced and managed; and**
 - (c) **the green backdrop provided by ridgelines is not reduced** when viewed from major roads and surrounding residential land..." (Emphasis added).

[246] The construction of s 3.5.5.1(10) contended for by the appellant and the respondent could not be more opposed. According to the appellant, the words "*maintained*", "*conserved*", "*protected*", "*enhanced*" and "*not reduced*" should be read in a practical way to achieve balance between competing outcomes and, accordingly, should be read down by inserting words such as "*appropriate*" and "*to an acceptable level*"²⁶⁷. In this context, two of the experts relied on by the appellant, Mr Francis and Mr Agnew prepared further reports. Mr Francis, on the basis that:²⁶⁸

"I have also been asked to assume that the term 'conserve' and 'protect' should not be read in an unqualified way, but rather should be read with a qualification such as '**to an acceptable or reasonable degree**'. Similarly, I have been asked to assume that the terms 'enhance' and 'manage' should be read with the word 'reasonably.'" (Emphasis added).

And in the case of Mr Agnew:²⁶⁹

"In providing my advice, and consistent with the approach taken by David Francis in addressing flora matters, I have assumed the terms 'conserved' and 'protected' should not be read in an unqualified way but rather **should be read with a qualification such as 'to an acceptable or reasonable degree.'**" (Emphasis added).

[247] On the other hand, Mr Litster submitted that it would be impermissible to read down the scheme's objectives concerning non-committed areas. According to him:²⁷⁰

"...unfortunately, this document is designed to be construed strictly.

²⁶⁷ Appellant's written submissions para 904-906; also T34-15 - T34-26.

²⁶⁸ Exhibit 125.

²⁶⁹ Exhibit 145.

²⁷⁰ T33-88 ll 9-14.

We make no apology about it, because that is what it does and the way that it's been drafted is indicative that there was clear attention paid to where do we place our priorities. Where do we place our priorities? And they place their priorities – and it would be impermissibly rewriting the scheme to qualify those priorities...”

[248] According to Mr Gore, after referring to the other provisions of s 3.5.5.1, the word “unreasonably” or some similar qualification has simply been omitted as a consequence of a “mistake” on the part of the draftsman.²⁷¹ I cannot accept that submission. It is quite clear to me that when CP 2016 was being drafted a clear distinction was intended to be made regarding the way committed resource areas (i.e. either existing or approved) were to be treated in the approval process when compared to non-committed areas. To construe subsection (10) in the manner contended for on behalf of the appellant would, to a significant extent, see non-committed areas having to be treated in much the same manner as committed areas. That subsection (1) of s 3.5.5.1 refers to impacts being “*managed to an acceptable level*” does not advance the appellant’s case. When the scheme was being drafted, it seems tolerably clear that what was intended, was that an acceptable outcome in respect of committed areas, would not or need not be acceptable in respect of non-committed areas.

[249] Under subsection (8), concerned with committed areas, the emphasis is on the practicality of preventing significant impacts. That significant impacts might occur because it is impracticable to prevent them is contemplated. In such cases, that significant impacts occur might nonetheless, when circumstances warrant or dictate, be an acceptable outcome. Under subsection (10), significant impacts on amenity, critical corridors and matters of environmental significance etc. are not contemplated and would result in an unacceptable outcome.

[250] I accept that the terms used in subsection (10) should not be construed too strictly. To do so would result in an effective ban or prohibition on any meaningful quarrying on the land. However, it would be an error to treat the subsection as merely involving some sort of balancing act. That is, by way of example, to say it would be reasonable to accept (or unreasonable to reject) the loss of a significant number of NJKHT and/or waterways because the loss of the trees could be offset and the waterways artificially replicated. The construction contended for by the

²⁷¹ T34-16 ll 27-34.

appellant fails to have regard to the distinction between committed areas where the test is whether it is practicable to prevent significant adverse impact, whereas in respect of non-committed areas residential amenity is to be maintained and matters of environmental significance are to be conserved, protected, etc.

[251] Any application for development within a non-committed area would of course have to be treated on its own merits. No doubt there will be locations where there would be either no or only insignificant impacts on the matters identified in subparagraphs (a), (b) and (c) of subsection (10). Unfortunately for the appellant, that is not the case here. There are a number of significant impacts which places the proposal in serious conflict with s 3.5.5.1(10). Before proceeding further, having regard to the way the respondent dealt with, or perhaps more accurately failed to deal with, KRA 96 in the 2003 Planning Scheme and the wording of s 3.5.5.1(10), one could not be blamed for being somewhat suspicious that the current drafting was intended to make any development of a quarry near the size of that proposed extremely difficult, if not impossible, within KRA 96. In this context I agree with the appellant's submission that the construction of 3.5.5.1(10) advocated for by the respondent would "*severely restrict if not prohibit quarrying on the subject land.*"

[252] On balance, for the reasons given above, I do not consider that the proposal ought be refused by reference to the following matters either alone or in combination: aquatic ecology, terrestrial ecology, noise (from whatever source), air quality and vibration. While it is no doubt true that some of the residents closely located to the proposal would have their amenity affected, I am satisfied that, at least in respect of these matters, the amenity of nearby residential land would be maintained to an acceptable level and that the ecological issues would not warrant refusal.²⁷²

[253] The same could not be said, in my view, in respect of the traffic issues, nor in respect of the "*green backdrop provided by ridgelines.*" As I have already indicated, the visual impact on more distant receptors (i.e. at or about 4-5km distance) would be minor/insignificant. However, elements of the quarry, in particular processing plant and the quarry benches will be visible to a range of moderate to high receptors. To that extent, the green backdrop identified in subsection (10)(c) is negatively impacted upon in a material way.

²⁷² See p 118.

- [254] In respect of traffic, the extent of the roadworks proposed and the impact resulting from the introduction of 450 heavy haulage vehicles per day onto Old Coach Road will materially impact on the amenity of nearby residential areas. The roadworks may cause only temporary impacts, 3 to 11 months depending on which construction option were adopted. However, the haulage trucks will be operating effectively for the lifetime of many of the local residents. Of course the level of impact on amenity would be dependent on how often any given nearby resident used that section of Old Coach Road, but even in the absence of any specific evidence on that point, it is tolerably clear that there would be a perceptible adverse impact.
- [255] As I observed earlier, that all relevant policies and guidelines can be met need not be a determinative matter. In this proceeding I am satisfied that there would be tangible, negative impacts on residential amenity arising from the visibility of the development, blasting, the introduction of heavy traffic and, to a lesser extent, periodic dust issues. These would be a constant reminder to many of the local residents of the quarry's existence. A use that would fall outside of the reasonable expectations of residential amenity under both CP2003 and CP2016.
- [256] For the reasons given, the proposal is in material conflict with SO 3.5.5.1(10)(a) and (c).
- [257] Turning then to SO 3.5.5.1(10)(b), the conflict is even more serious. The land is specifically identified in the extractive resources overlay²⁷³ however, somewhat incongruously, it also falls within the Landscape and Environment Precinct and is identified on the environmentally significant overlays identified previously.²⁷⁴
- [258] I am able to accept that the loss of waterways would not put the proposal in serious conflict with CP 2016. I also accept that, leaving aside the question of koala habitat for the moment, other flora of significance within the disturbance area could be located and replanted within the buffer area and that a meaningful and effective fauna corridor could be maintained.
- [259] That said, the impact on the existing koala habitat is significant. The clearing of 67 ha is in stark conflict (at variance or disagreement) with 3.5.5.1(10)(b). It is not to

²⁷³ Exhibit 11B p 39.

²⁷⁴ Ibid pp 31, 32 and 33.

the point that the buffer would “*provide for a large area of habitat suitable for movement of a wide range of fauna including species of significance...*”²⁷⁵ nor that the impacts on the flora might be able to be dealt with by appropriate “offsets”.

[260] Mr Francis expressed the following views:²⁷⁶

“In terms of flora ecology only the second part of point (b) are relevant, that is, ‘*matters of environmental significance are conserved, protected, enhanced and managed.*’ My interpretation of each of the terms conserve, protect, enhance and manage follow:

- **Conserve** – to conserve something it is necessary to prevent it from permanent loss. **Conceivably, this allows for translocation or offsetting of the ecological value.**
- **Protect** – the term is similar to conserve, but subtly different. I take it to mean that the value is permanently retained. **Again, the value could conceivably be protected once it had been translocated or offset** so long as there is a mechanism in place for its permanent retention.
- **Enhance** – this would only apply to degraded areas. An area that is already integral could not be enhanced. Enhancement would include ecological restoration activities.
- **Manage** – areas that are retained are subject to a management regime. This would likely include pest management and fire management...” (Emphasis added).

[261] That matters of environmental significance might “conceivably” be conserved and protected by offsets is, again, not to the point.

[262] The words used in 3.5.5.1(10)(b) should be given their natural and ordinary meaning but be construed in the context of contemplated extractive industry occurring. As was identified in the *Westlink* judgment that is so particularly when dealing with phrases such as “*preserve and enhance*” and “*maintain and preserve*”.

[263] The clearing of 62 ha of koala habitat could not be sensibly reconciled with the object of conserving, protecting and enhancing matters of environmental significance. In this context I would observe that no document of the type produced by Messrs Agnew and Francis (Exhibits 125 and 145) was prepared by Dr Carrick who was relied on by the appellant to deal specifically with issues concerning

²⁷⁵ Exhibit 145, p 3.

²⁷⁶ Exhibit 125, p 1.

koalas. Perhaps not surprisingly given his evidence that koala habitat offsets should always be the last resort after avoid and minimise.²⁷⁷

[264] Habitat offsets may well lead to a better overall income for the koala population in the wider Southeast Queensland area. That however provides no resolution of the conflict identified above. It also fails to have regard to the provisions of CP 2016 that require matters of environmental significance within biodiversity areas to be protected “in situ”. Koala habitat is a matter of environmental significance²⁷⁸ within a biodiversity area. “In situ” is defined to mean that “*matters of environmental significance must not be damaged or removed and the matters cannot be offset.*”²⁷⁹ The proposal is therefore also in conflict with Strategic Outcome 3.7.1(4)²⁸⁰ and Specific Outcome 3.7.4.1(4).²⁸¹

[265] For essentially the same reasons, the proposal is also in conflict with Performance Outcomes 13, 17 and 19 of Part C – Assessable Development Criteria.²⁸²

[266] In respect of the issue of protecting habitat “in situ”, it was submitted on behalf of the appellant:²⁸³

“In construing CP 2016 the ordinary rules of statutory interpretation apply.

The orthodox rules of statutory provision include that a specific provision overrides a general provision.

By application of these orthodox principles, it is clear that Specific Outcome 3.5.5.1(10) is the dominant provision. This Specific Outcome refers only to two specific areas within the whole of the Council’s local government area, whereas the provisions relied upon by the Council are general provisions which refer generically to land mapped extensively throughout the whole of the Council’s local government area.

Specific Outcome 3.5.5.1(10) is also to be contrasted with Specific Outcome 3.5.5.1(9) which clearly indicates a preference for agricultural values over extractive industry values. No such

²⁷⁷ Exhibit 40, p 5; RT21-22 ll 27-30.

²⁷⁸ In CP 2016 koala habitat is specified to be a priority species – Exhibit 11A, p 193.

²⁷⁹ Exhibit 11A, p 304.

²⁸⁰ Ibid p 79.

²⁸¹ Ibid p 84.

²⁸² Ibid pp 200-201.

²⁸³ Written submissions at p 233.

preference is contained within Specific Outcome 3.5.5.1(10).”
(Footnotes omitted).

[267] While I accept that the “ordinary rules of statutory interpretation apply”, I do not accept that SO 3.5.5.1(10) is the “dominant” provision to the extent of rendering Outcomes 3.7.1(4) and 3.7.4.1(4) effectively of no consequence. It is true that 3.5.5.1(10) is concerned with only two specific areas (the Reedy Creek and Northern Darlington ranges non-committed areas) but, insofar as the subject land is concerned it is, by virtue of its natural features, also a matter of environmental significance, particularly so in respect of koalas. It would be, with respect, a rather bizarre result that outcomes specifically designed to deal with important environmental habitat areas had to be effectively ignored.

[268] The proposal is in material conflict with CP 2016, that conflict involving the adverse impacts on residential amenity caused by the traffic, visual amenity and the relevant intended environmental outcomes identified above.

[269] In this context I am also unable to accept much of Mr Schneider’s evidence concerning the level of conflict the proposal creates with CP 2016. It is clear that he, like Messrs Francis and Agnew, read down the purpose and effect of s 3.5.5.1(10) to an unacceptable level. The effect of his evidence was that he saw CP 2016 treating development within committed areas of extractive resource no differently than that for development within non-committed areas, to the extent that the loss of 23,000 NJKHT from the subject land could be compensated by way of offsets.²⁸⁴

[270] As I have already indicated, insofar as CP 2003 is concerned the proposal, as the appellant itself concedes, is in even more serious conflict albeit for different reasons. To put it bluntly, if the proposal does not succeed under CP 2016, its prospects under CP 2003 are even more unlikely.

Sufficient grounds

[271] Given the level of conflict involved it is necessary to consider whether there are sufficient grounds to justify approval despite the conflict. I have already dealt with

²⁸⁴ T31-37, L 10 to T31-40.

and expressed my findings concerning the lay witnesses called by the appellant on this issue.

[272] Section 326(1)(b) of the SPA is concerned with the concepts of conflict and sufficient grounds in the context of their application to a “*relevant instrument.*” Pursuant to s 314(2), a relevant instrument here would include a “*planning scheme.*” As has already been identified, CP 2003 was in force when the subject application was lodged. Accordingly, in a proceeding such as this, pursuant to s 495(2)(a) of the SPA, it must be decided “*based on the laws and policies applying when the application was made,*” here that would be CP 2003. However, any new laws and policies may be given weight to the extent the court considers appropriate. Given the substantial weight placed on CP 2016 in this proceeding I have concluded that, largely consistent with the approach adopted by the parties, the issue of conflict should be addressed by reference to CP 2016 rather than CP 2003. To perhaps put it another way, notwithstanding the fact that CP 2003 is the relevant instrument for the purposes of s 326(1)(b) of the SPA, CP 2016 is the planning instrument that ought be accorded most weight.

[273] For the reasons already identified,²⁸⁵ had the “sufficient grounds” test or balancing exercise been carried out against CP 2003, the level of conflict would have been much more serious and, to put it bluntly, it would have been an even more difficult task to establish sufficient grounds to justify approval.

[274] As the SPPs and the SEQRP identify, a readily available source of hard rock is a vital component of Queensland’s building and infrastructure development. And, accordingly, there is a need to ensure that such resources are identified, protected and exploited when appropriate. Also, as the appellant pointed out, hard rock of the type involved here is a finite resource for which there is at present, and for the foreseeable future, no viable alternative and there is no choice but to exploit the

²⁸⁵ See e.g. paras 212-213 and paras 234-239.

resource where it exists. The last point was neatly articulated by Quirk DCJ in *Sellars Holdings Ltd v Pine Rivers Shire Council*:²⁸⁶

“...remembering that it is a characteristic of extractive industry that it can be practically located only where suitable deposits (which can be worked in an economically viable way) are to be found, it is in the community's interests that such deposits be availed of wherever possible.”

[275] That a valuable state resource exists, however, does not mean that it must necessarily be exploited at this particular point in time. The benefit of exploitation at this time has to be balanced against other state interests such as biodiversity, water quality, agriculture and liveable communities. As SPP 2013 recognises, the exploitation of extractive resources sometimes “...will require the careful consideration of competing interests.”²⁸⁷

[276] The sufficient grounds relied on by the appellant to warrant approval are identified in a number of documents.²⁸⁸ Mr Schneider, the town planner relied on by the appellant, also provided a summary of the grounds of approval:²⁸⁹

- “(a) *the proposed development will provide benefits to the community;*
- (b) *there is a planning need for the proposed development;*
- (c) *the proposed development presents a rare opportunity to secure access to a highly valuable, non-renewable resource without unacceptable impacts;*
- (d) *the proposed development maintains the city image and scenic amenity of the city;*
- (e) *the proposed development makes efficient use of the site whilst effectively balancing the extent of development with the need to conserve, protect, enhance and manage existing environmental values;*
- (f) *the proposed development maintains and secures the connectivity of environmental corridors;*
- (g) *the proposed development retains and protects part of the site identified for development under the 2003 Planning Scheme in the vegetation buffer;*
- (h) *the proposed development will deliver a substantial environmental offset;*

²⁸⁶ [1988] QPLR 12; see also *Holts Hill Quarries Pty Ltd v Gold Coast City Council* [1999] QPELR 415 at 418 per Hanger DCJ.

²⁸⁷ SPP 2013 at p 23.

²⁸⁸ Exhibit 9, Issues Bundle, pp 67-68 and at pp 13-17 and pp 74-75.

²⁸⁹ Exhibit 29B pp 73-75.

- (i) *the proposed development will have a net benefit for koalas;*
- (j) *the proposed development will generate employment opportunities;*
- (k) *an Environmental Authority has been granted by the Department of Environment and Heritage Protection and the proposed development can comply with all regulatory limits, particularly with respect to air quality, noise and blasting;*
- (l) *the proposed development reflects a project that is of State significance;*
- (m) *the proposed development is consistent with State interests;*
- (n) *the proposed development gives effect to State planning instruments;*
- (o) ***Extractive Industry Overlay Map OM23 in the 2003 Planning Scheme has been overtaken by events;***
- (p) ***the 2003 Planning Scheme does not incorporate relevant State planning instruments;***
- (q) ***the 2003 Planning Scheme is inconsistent with the City Plan 2016;***
- (r) ***the City Plan 2016 contemplates the development of extractive industry on the site;***
- (s) *if the Court decides to approve the development applications, it will lead to enforceable obligations upon the Appellant to:*
 - (i) *carry out rehabilitation to achieve environmental benefits; and*
 - (ii) *carry out works that will improve the safety and efficiency of the external road network.*
- (t) *the proposed development is consistent with reasonable community expectations that:*
 - (i) *the site will not remain undeveloped;*
 - (ii) *the existing amenity of nearby residential areas will be maintained; and*
 - (iii) *the ongoing supply of extractive resources close to market is secured.” (Emphasis added)*

[277] As can be readily appreciated, there is a degree of overlap associated with a number of those grounds. Also, the appellant accepted that sub-paragraphs (k), (m), (o), (p), (q), (r) and (t) are “*more directly relevant to the issue of the nature and extent of the conflict, than with positive matters of public interest per se. Otherwise, Boral submits that the grounds identified have been established on the evidence.*”²⁹⁰

²⁹⁰ Appellant’s written submissions at para 948.

[278] At the heart of the appellant's case in this context is the following submission:²⁹¹

“The primary grounds obviously relate to matters of need, and, in that regard, the court is referred to earlier submissions under the headings of need, quarry management and geology. Many of the other disciplines are also relevant, and the court is particularly referred to earlier submissions under the headings of traffic, civil engineering, water quality and hydrology, and koalas.

In the result, any conflict that arises is overcome by the matters of public interest relied upon by Boral.”

[279] For the reasons already given, I consider it only necessary to give further consideration to the issues of “quarry management/supply” and “need.”

[280] The present day value of the resource is estimated at about \$1.5 billion. Further, there can be no doubt of the appellant's commitment to the exploitation of this site. That is clearly evident by reference not only to this proceeding but also the approval processes identified above. It is also clear that the exploitation of this resource would dovetail very neatly with the impending exhaustion of the West Burleigh Quarry. While Boral's personal commercial interests are not directly relevant they are, in my view, of some significance for the reasons identified above. That is, in providing a source of high quality product in the Southern Gold Coast area and the associated potential impacts on the cost of transportation and competition and pricing. Additional costs will almost inevitably be passed on at least to some extent to the end user and that would not be in the public interest.

[281] Notwithstanding its failure to identify, let alone protect, the subject key resource area, CP 2003 did at least provide some planning strategy for natural resources and, in particular:²⁹²

“This strategy therefore seeks to ensure the wise use of existing resources of economic value within the City. Accordingly, where it can be shown that there is an overriding community benefit, extractive industry development may be an appropriate use in areas of significant nature conservation value.”

[282] As is the case here, when confronted with phrases in town planning documents such as “*protect and enhance*”, phrases such as “*an overriding community benefit*” must also be construed in the context of the planning scheme as a whole which will

²⁹¹ Ibid paras 949 and 950.

²⁹² Exhibit 10A, p 67.

almost inevitably involve objects, some of which will be on their face inconsistent with, if not in direct conflict with, other objectives.

[283] In *Parklands Blue Metal Pty Ltd v Sunshine Coast Regional Council*²⁹³ Robertson DCJ, in dealing with a quarry case, said:

“The question of whether a need is shown to exist is to be decided from the perspective of the community and not that of an appellant, or even objectors. A community consists of more than just particular members of it. The concept of planning need does not mean pressing or critical or urgent need or widespread desire or anything of that nature.”

[284] In *Yu Feng Pty Ltd v Brisbane City Council*²⁹⁴ the Court of Appeal, when concerned with a large shopping centre, said:

“[Overwhelming need] is not on its face prescriptive. It is more in the nature of a ‘motherhood’ statement and what will constitute an ‘overwhelming need’ will vary enormously. There would almost be an infinite variety of facts which could impact upon the decision whether or not there was an ‘overwhelming need’ for a proposal under consideration.”

[285] “Need”, in the town planning sense does not require a pressing critical or even a widespread need or desire. In *Watts & Hughes Properties Pty Ltd v Brisbane City Council*²⁹⁵ it was observed:

“...need does not connote a pressing urgency but relates to the wellbeing of the community. A use would be needed if it would, on balance improve the services and facilities available in a locality”.

[286] In *Isgro v Gold Coast City Council*²⁹⁶ Wilson SC DCJ (as he then was) after citing with approval the above passage from *Watts & Hughes Properties* went on to say:

“Need, in planning terms, is widely interpreted as indicating a facility which will improve the ease, comfort, convenience and efficient lifestyle of the community... there is a latent unsatisfied demand which is either not being met at all or is not being adequately met...”

[287] While it can be readily accepted that there could be a wide range of levels of need that might warrant approval despite conflict, it is uncontroversial that the greater the

²⁹³ [2014] QPELR 479 at [245].

²⁹⁴ (2007) 156 LGERA 399 at [26].

²⁹⁵ [1998] QPELR 273 at 275.

²⁹⁶ [2003] QPELR 414 at paras [21] & [26].

conflict the higher the level of need that must be established to justify approval. In this case, the level of conflict is of a higher order.

[288] Before going on to consider in more detail the evidence of the economists and the “quarry management” experts, I should deal with two preliminary matters raised by the appellant. The first of these matters is the criticism of the respondent’s use of unapproved potential resource deposits in attempting to rebut the need case. Particular reference was made to another quarry case decided by Robertson DCJ, *Neilsens Quality Gravels Pty Ltd v Brisbane City Council*.²⁹⁷ In *Neilsens*, his Honour observed:²⁹⁸

“I think Council’s submission to the effect that the designation of the site in KRA 60 by SPP02/07 ‘merely protects the land from encroachment by inappropriate development and preserves access to it’, understates the importance of this fact in the assessment process. It goes further in its terms, but does not ‘guarantee’ an approval which will be subject to impact assessment against the relevant planning scheme provisions.”

His Honour also observed:²⁹⁹

“In my view, nothing much turns on this because the reliance upon unapproved sites in relation to availability of like resources is at best speculative, and, in any event, Council’s economic need expert... accepted that there is a significant difference in considering need, between approved resources for extraction, and simply the presence of resources in the ground, and that if one wants to properly evaluate need, the relevant test is approved sites and not unapproved sites; including unapproved sites in a KRA. That approach is consistent with the approach I took in *Parklands Blue*; which was not criticised on appeal...”

[289] I have no doubt that in the context of that case his Honour’s observations were correct. However I, with respect, do not take his Honour to be saying that in every instance reference to an unapproved KRA would invite impermissible speculation. Each case will turn on its own facts and, depending on the evidence, it may well be established that an existing KRA, even though unapproved for extraction at the time, is nonetheless a relevant consideration in determining whether or not another quarry in the vicinity is needed.

²⁹⁷ [2016] QPELR 709: see also *Parklands Blue Metal Pty Ltd v Sunshine Coast Regional Council* [2014] QPELR 479 at [268].

²⁹⁸ At [211].

²⁹⁹ At [153].

[290] The second preliminary matter raised by the appellant was to the effect that the conduct of the respondent was inconsistent with that of a “model litigant” and involved a course of conduct that ought be discouraged. In this context it was submitted:³⁰⁰

“If the approach of seeking disclosure from commercial competitors to defeat a need case based upon matters including the ‘*future plans*’ of non-party competitors was to become the norm in this court (in either quarry cases or litigation more generally) it would result in a number of undesirable outcomes including putting parties to greater expense and increasing the length of trials.

Both outcomes would be contrary to Rule 4 of the *Planning and Environment Court Rules 2010*, which seeks to facilitate the just and expeditious resolution of the real issues in a proceeding at a minimum of expense by avoiding and, *inter alia*, undue delay and expense...”

[291] Unwarranted disclosure and indeed unnecessary requests for further and better particulars etc. must be discouraged. It wastes time, money and valuable court time. That said, there will always be cases where disclosure, including non-party disclosure, is necessary to ensure justice is done between the parties. In my view, while I express no final view about it, whilst the non-party disclosure may have been more limited than it was, some was necessary not only for the “quarry management” experts but also for the economists. It is difficult to see how the respondent could have met any need case advanced by the appellant without some detailed knowledge about the availability of hard rock from other sources within reasonable proximity to the Gold Coast and, in particular, the Southern Gold Coast area. That some of the quarries and/or potential quarries might lie outside the respondent’s local government area is not really to the point.

Quarry management

[292] Mr Gray was retained by the appellant and Mr Reed for the respondent. In the initial approval process, Mr Gray had been engaged by the respondent and had recommended approval of the development subject to conditions. Both Mr Gray and Mr Reed primarily focused upon providing insights and details concerning the capacities and capabilities of other hard rock quarries that might potentially fill any

³⁰⁰ Appellant’s written submissions at paras 733-734.

supply void that might be created in the event that the subject application did not proceed. That information was then utilised by the economists called by each of the parties to address the question of need.

[293] For the reasons already given under the heading of “geology”, I am satisfied that the subject land contains high quality hard rock which could be efficiently won to meet demand well into the foreseeable future. It would also make a significant contribution to employment opportunities in the Southern Gold Coast area, particularly during the establishment and construction phases.

[294] In addition to contributing to the JER process, Mr Gray and Mr Reed also prepared individual court reports. Mr Gray’s report is Exhibit 38 in redacted form and Exhibit CC in un-redacted form. Mr Reed’s individual court report is Exhibit 63 in redacted form and Exhibit CE in un-redacted form. The un-redacted exhibits contain sensitive commercial information not only of the appellant but also of commercial competitors. Mr Gray’s opinion about the proposal is neatly summarised in his court report:³⁰¹

“I am of the opinion that the subject site (KRA 96) is a standout resource to provide continuity of supply (when West Burleigh quarry closes) of high quality greywacke quarry products into the Gold Coast and Northern New South Wales region because of its:

- (a) source of rock quality;
- (b) size of recoverable resources; and
- (c) favourable geographic location in Southern Gold Coast City close to Pacific Motorway in an urbanised region soon to be depleted of local hard rock alternatives.

To the best of my knowledge no other undeveloped available hard rock deposits in the central and Southern Gold Coast City regions or in the Tweed district are known to possess these attributes of fortuitous geology and geography.

From a supply site perspective, I am of the opinion that in the absence of locally available suitable alternatives, there exists a community need in Gold Coast City and the Far Northern NSW region, for the development of the Reedy Creek greywacke quarry.

It is submitted that evidence of the quarry management experts confirms the public interest and benefits that would occur through

³⁰¹ Exhibit 38 paras 69-71.

approval of the quarry project and does not provide any basis upon which to refuse the quarry project.”

[295] Mr Gray’s evidence was not seriously shaken in cross-examination.

[296] While clearly not as enthusiastic about the proposal as Mr Gray, the evidence of Mr Reed was to the effect that he could see some benefit in the project proceeding at least insofar as it had the potential to provide good quality material. During his cross-examination by Mr Gore, the following exchange took place between myself and Mr Reed:³⁰²

“Q: So are you saying that this site fails to meet the commercial, technical or environmental criteria or fails to meet all three or does it meet all three but there’s another reason why it shouldn’t go ahead?

A: No. I don’t think it’s up to me to comment on whether or not it meets the environmental criteria.

Q: Alright. Well, let’s look at the commercial... and technical criteria.

A: Yes.

Q: Does it tick those boxes?

A: Yes.

Q: Yes it does?

A: Technically I think it’s – the rock is good. The – the – the modelling and the work that’s been done by groundwork on the – on the quarry planning etc. etc., is of a fairly high order. I do question the distance between the back high wall and I think it’s the Bardon Ridge Road houses. I thought that was incredibly close, but that aside, so I think it would be probably – I’d probably tick it on those boxes.”

That exchange continued:³⁰³

“Q: Look, remember the – and this goes back to the exchange that you and I had yesterday. Remember I was expressing some difficulty in understanding your relationship between supply and demand?

A: Yes.

Q: Does it come down to this: that you don’t dispute that when the West Burleigh quarry closes there will be a demand for hard rock in the south Gold Coast area?

³⁰² T25-11 ll 11-23.

³⁰³ T25-12 ll 5-46.

- A:** No, there will be a demands – there will be a demand for hard rock in the south Gold Coast area, yes.
- Q:** Right. But your proposition as I understand it is that there's no need for this quarry because the supply could come from those quarries predominantly located in the KRA67 area?
- A:** Your Honour, to a large extent it already does.
- Q:** Well, no---?
- A:** Yes.
- Q:** But is that right, that the quarry – if the quarry – the subject quarry doesn't go ahead the supply of the southern Gold Coast market would be met by – I know you've mentioned some south of the border, but predominantly by those quarries KRA67, Holcim Boral, Yatala Boral, Ormeau, Fulton and the Hogan quarries?
- A:** Oxenford and Nerang, yes.
- Q:** Yes. So am I right so far?
- A:** Yes, your Honour. Yes, you are.
- Q:** Well, that brings me back then to the very first question that – the very – one of the very first answers you gave; in quarrying the two big ticket items are overburden and transport. Put overburden to one side?
- A:** Yes.
- Q:** There's a 40 kilometre distance between KRA67 and West Burleigh?
- A:** Yes.
- Q:** So I'm struggling with that tension between that answer you gave very early in the piece and---?
- A:** No, I understand, your Honour, and that's why I say through my report you'd need quantitative analysis. It's for this reason: 60 per cent or more of – let's start again. Less than 35 per cent of West Burleigh's current sales go into the south and central Gold Coast, right. So that means that the other 55 per cent is transported predominantly to concrete plants further away. So that transport advantage obviously doesn't attach to those tonnes. If you look at the 35 or 31 to 35, depending whether you take five year or seven year average, 31 to 35 per cent that's sold into the south and central Gold Coast, greater than 60 per cent of that is then reloaded. It's either covered in bitumen that's asphalt and reloaded or it goes through Gold Coast City Council and it's transported

elsewhere within the Gold Coast. So I say that only about 18 per cent maximum of what comes out of West Burleigh has a transport advantage into the local area. Okay. Do want me to go through the---”

[297] Following that exchange, Mr Gore continued:³⁰⁴

“Q: Mr Reed, you gave me the impression in some of those exchanges that it’s not your position that this application should be refused; you could see merit in it?

A: Uh-huh.

Q: You’re simply giving some evidence to assist his Honour to make that decision. Is that a fair summary of your position?

...

Q: Is that a fair summary of your position?

A: Could you just repeat it exactly then, please?

Q: It’s not your position... that this application should be refused. You recognise that that’s entirely a matter for his Honour?

A: That’s for the court, yes.

Q: And you can see merit from a technical perspective in the proposal?

A: Yes.

Q: You therefore simply give evidence about some supply and supply and demand issues for his Honour to take into account in deciding whether to approve or refuse?

A: That’s correct with the caveat that the supply issues are just as I mentioned from A to X on page 5 of my – of my report.”

[298] The reference to the “caveats” concerning “supply issues” identified by Mr Reed are, when read objectively, not caveats at all. They really provide a summary of what Mr Reed considered to be the “*major supply related issues.*”³⁰⁵ Under the heading “conclusions”, Mr Reed stated:³⁰⁶

“Areas of general agreement between myself and Mr Gray are summarised at Table 1 and can be further summarised as follows:

³⁰⁴ T25-13 ll 9-29.

³⁰⁵ Exhibit 63 p 5.

³⁰⁶ Exhibit 63 p 20.

- (i) There are currently 9 hard rock quarries operated by five major construction materials companies within GCC.
- (ii) Between them these quarries have in excess of 635* million tonnes of approved resources with substantial, currently un-approved, additional hard rock resources under and/or adjacent to approved extraction footprints.
**Agreement subject to Mr Gray accepting resource figures presented in non-party disclosures – the figure agreed in JERI was 533M \pm 5%.*
- (iii) Of these nine quarries, six will remain as long term suppliers of quarry products after about 2025 when remaining services of hard rock will be exhausted at the West Burleigh, Yatala and Stonemaster quarries.
- (iv) Existing GCC quarries have produced and sold between 5.6M and 10.4M (average 7.75M) tpa of processed hard rock products during the period 2000-2016.
- (v) Approximately half of these sales (averaging say 3.86Mtpa) have been made and delivered to GCC markets with the balance exported to NSW and [predominantly] into other areas of SSEQ, ie, outside of GCC.
- (vi) NSW currently has at least four (and DR says six) established quarries, with currently approved resources of about 30Mt, supplying into regional markets which consume 1.2M to 1.3M tpa. However Mr Gray and myself differ on quarry numbers and relevancy.
- (vii) SSEQ (excluding GCC) currently has 8 established quarries (with approved resources of about 300Mt) producing and selling 3.8M to 8.3M tpa. DR adds that recent approval has been granted to five quarry operators to increase production by five to six million tpa. Once again, Mr Gray and myself disagree about relevancy.”

[299] Following discussion involving the use of commercially sensitive material, Mr Reed reached the following conclusions:³⁰⁷

“Assuming Boral upgrade their Ormeau quarry to produce 2Mtpa (as per the 2012 development approval), there will be no specific GCC community need for the proposed Reedy Creek quarry.

³⁰⁷ Ibid p 22.

Existing/remaining GCC quarries will have ample production capacity to meet local and regional demand for product.

It is difficult to see the community need or financial justification for the 2Mtpa quarry proposed for the site.” (Emphasis added).

[300] The fundamental difference between the evidence of Messrs Gray and Reed is that Mr Gray considers there is community need/benefit in the proposal proceeding and Mr Reed does not, on the basis that there is sufficient supply capacity in existing operating and/or potential quarry capacity.

[301] The respondent’s position in this context was stated in the following terms:³⁰⁸

“The council’s position is that the City has extensive approved reserves of hard rock that are able to, and do, produce hard rock, substantially in excess of demand within the City. Having regard to the focus of the evidence (cf Exhibit 9 p 107), the Council’s position is that none of the City of Gold Coast and Southeast Queensland (as limited) and Northern New South Wales (as limited) are undersupplied with hard rock and to the extent that some demand for the hard rock might be established, it does not justify a hard rock quarry on (the subject land).

If the council’s position is correct, there cannot be a strong need for the project.

It follows that consideration should be directed to the productive capacity of the City’s approved reserves; whether they produce hard rock substantially in excess of demand within the City; and whether there is an undersupply within the City, Southeast Queensland (as limited) and Northern New South Wales (as limited).

...

The court can be comfortably satisfied that the City has extensive approved reserves of hard rock that are able to, and do, produce hard rock, substantially in excess of demand within the City and that none of the City of Gold Coast and Southeast Queensland (as limited) and Northern New South Wales (as limited) are undersupplied with hard rock.”

[302] The reference to geographical areas being “as limited” is a description of the agreed supply or catchment area for the proposed quarry which extends into the north-eastern corner of New South Wales.³⁰⁹

[303] Finally, in respect of this evidence, while both Mr Gray and Mr Reed expressed opinions about both the supply of and demand for hard rock, they were clearly of

³⁰⁸ Written submissions paras 526-528 and 555.

³⁰⁹ See Exhibit 26 at pp 12 and 13 and Exhibit 64 at pp 14, 22 and 23.

the opinion that the issue of the level of need, in the sense of community/economic need, was a matter to be addressed by the economists, and that their evidence was more concerned with the “supply side” of the equation.³¹⁰

The economic evidence

[304] Mr Norling was retained by the appellant to address the issue of community/economic need and Mr Duane by the respondent. Apart from participating in the JER process, both Mr Norling and Mr Duane produced individual court reports. Mr Norling Exhibits 39 and CD and Mr Duane Exhibits 64 and CF. As was the case with the quarry management experts, the un-redacted exhibits contained commercially sensitive information.

[305] The evidence of the lay witnesses, who gave evidence on behalf of the appellant, together with that of the economists, leaves me satisfied that there is a need for the proposal. In that sense, there is a “ground” in support of approval. It would maintain the competitive status quo and the efficient supply of high quality material from a location convenient to the southern end of the Gold Coast. However, as identified above, in the case of conflict with a planning scheme there must be “*sufficient grounds to justify the decision despite the conflict.*” The determination of this contest requires an abstract form of a cost benefit analysis, made all the more difficult because on one side of the scales is the economic benefit to the community and on the other, the less tangible benefits associated with maintaining biodiversity and amenity. In this context the relevant “community” is wider than the inhabitants of the Gold Coast local government area. For there to be sufficient grounds in this context, the enquiry need not be confined to only those positive aspects, flowing from a proposal, that occur within the subject local government area.

[306] In his conclusions expressed in the JER process, Mr Norling stated that there was a “*strong level of community, economic and planning need...*” for the proposal. He then went on to say why. At the risk of repetition, they could be summarised as:³¹¹

- It would provide an essential product to the community.
- Given the high volume low value nature of the product, location is particularly important given the sensitivity of transport costs.

³¹⁰ See e.g. Exhibit 25, p 12, para 11; p48, paras 150-151 per Mr Gray, and p 49, para 160 per Mr Reed.

³¹¹ Exhibit 26 pp 49-50.

- Any increase in transport costs would be likely passed onto end users which, in turn, would have negative cost ramifications to the wider community.
- It is but one of only two Gold Coast resources assessed as being of State significance.
- There is a diminishing supply of available hard rock resources to conveniently and economically service the Gold Coast at Tweed Shire.
- Approval of the development would allow the appellant to maintain its annual operating capacity and geographical presence which would be of a community benefit.
- Should the proposal not proceed, competition would reduce, introducing the risk of higher prices being passed on to an industry dominated by a smaller number of operators.
- Demand for extractive material in Southeast Queensland generally is projected to continue to increase and that is particularly so in the subject local government area.
- The proposal would benefit the local and regional economies, particularly by extending the life of an existing long-established business, supporting the continued employment of 24 full-time employees on site (and even more during the establishment and development phases).

[307] As to the town planning evidence, while not sharing the same level of support for the proposal as Mr Schneider, it is clear that Mr Buckley also saw not only a community benefit in exploiting a non-renewable resource but the potential for a community dis-benefit arising in the event that the resource was rendered unrecoverable.³¹² A clear example of how this could occur would be through ill-considered town planning decisions. The evidence of all the witnesses concerned with quarry management, economics and town planning considered it to be in the community interest not to have this SKRA effectively sterilised by inappropriate future planning.

[308] I accept the positive community outcomes identified by Mr Norling, as set out above, would be likely to occur. On this topic the case was made a particularly difficult one to decide because there were many aspects of Mr Duane's evidence that were no less convincing. It is clear from a number of exchanges that occurred during his cross-examination that he saw a number of positive outcomes that might

³¹² T32-50.

occur if the proposal went ahead. During his cross-examination, the following exchange took place:³¹³

“Q: Mr Duane, although the exercise might be a difficult one to carry out, the thrust of your evidence is that there can be no doubt that it would be a positive outcome, in the sense that an approval of this application would involve a saving in transport costs?

A: Most likely for that central and southern sector, yes. At the high level. It just depends on what happens with the product that might have been redirected from Ormeau, but I am happy to concede for that central southern sector there would be transport advantages.

Q: Well, can we perhaps shorten things this way. From an economic perspective you cannot point to any negative aspect of an approval in (sic) this application. You can only point to positive aspects, and it’s the degree of the public benefit that we may have a debate about.

A: That would be right.”

[309] Mr Duane’s evidence was, like that of Messrs Norling, Schneider and Buckley, to the effect that it was an important planning outcome that, at the very least, this significant resource should be preserved to permit future exploitation.³¹⁴

[310] In his court report Mr Duane stated:³¹⁵

“The key issue in dispute in relation to the subject quarry is best described as follows:

- (a) Gold Coast quarries have capacity to produce and supply around 10 million tonnes of hard rock quarrying product annually;
- (b) the Gold Coast market is projected to demand approximately 4.3 million tonnes of hard rock material currently, growing to 6 million tonnes over the period to 2031; and
- (c) there are enough quarries on the Gold Coast to service the Gold Coast market over time and still allow 4 million tonnes to be directed elsewhere.

³¹³ T26-61 L 35 – T26-62 L 15.

³¹⁴ E.g. T26-59 L 45 – T26-60 L 20.

³¹⁵ Exhibit 64, p 3, paras 7.1-7.3.

There is no need for the subject quarry to service the hard rock demands of the Gold Coast on this basis.

The question then becomes, is further hard rock quarrying material produced on the Gold Coast required to service areas outside the Gold Coast on an ongoing basis...”

[311] In the appellant’s written submissions it was contended that Mr Duane’s analysis was flawed because he limited “*the question to the need for the quarry to service the hard rock demands of the Gold Coast.*” It was said that this was a careful choice of language.³¹⁶ To an extent, Mr Duane seemed to concede that he had so limited his analysis.³¹⁷ Had he done so it would have been a mistake. The subject resource is a state key resource intended for the benefit of all Queensland, but at a more practical level for Southeast Queensland. However, on balance it seems tolerably clear to me that when viewed in context, Mr Duane, like Mr Norling, considered the question of supply and demand beyond the local government boundaries of the respondent.³¹⁸

[312] During the JER process, agreement was reached in respect of a number of matters including:³¹⁹

- The appellant is a highly vertically integrated corporation with extensive presence in Southeast Queensland and on the Gold Coast where it operates three quarries, an asphalt plant and five premix concrete batching plants.
- The appellant’s Northern Gold Coast quarries (Yatala and Ormeau) primarily service the greater Brisbane area (88%), with its West Burleigh quarry primarily servicing the Gold Coast market (76%) Northern NSW (18%) and greater Brisbane (6%).
- The Gold Coast City is the dominant producer of quarry material in Southeast Queensland generating almost 40% of total production. Its annual production has recently ranged from 7.4Mt to 12.1Mt.
- Approximately 55% of the Gold Coast City’s production of quarry material is exported to other regions, mainly Brisbane and Logan resulting in production exceeding demand by a factor of about two.

³¹⁶ Appellant’s written submissions at para 789.

³¹⁷ E.g. T26-57 ll 15-40.

³¹⁸ T26-59 ll 4-42.

³¹⁹ Exhibit 39, pp 5-6.

- There are 9 operating quarries within the respondent's local government area, having a collective resource capacity of about 530Mt and an annual production range of 7-10Mt. Three of these quarries are expected to cease operations within the next 10 years, reducing the annual production range to 5.4 - 7.5Mt. Two of the three quarries to close are operated by the appellant.
- Annual demand for quarry material on the Gold Coast is projected to increase from 5.1Mt currently to 7.0Mt in 2031.
- There has been a trend for hard rock quarries to generate an increase in proportion of quarry materials.
- If approved and operating, the proposal would achieve production levels of at least 1.0Mt per annum over its first 10 years of operation.

[313] According to Mr Norling:³²⁰

“...approval of the proposed expansion would therefore provide savings to the community through the provision of a lower cost product and in avoiding the negative impacts that trucking of alternative product from further afield would have on the community. Extraction of the proposed Gold Coast Quarry resource would provide cost savings to the construction industry of about \$270m, based upon the following assumptions:...”

[314] For the reasons expressed by Mr Duane,³²¹ I consider Mr Norling's evidence on this matter to be, with all due respect, something of a best guess but nonetheless a well-informed one dealing with a very complex issue. As Mr Norling himself effectively acknowledged, one could make any number of assumptions that might affect the final outcome but, according to him, the \$270m estimate was “*in the order of magnitude*” that might be expected.³²² It emerged during cross-examination that bringing into account quarries in Northern New South Wales, which ought to be done, those cost savings might have had to be reduced by about 10% to 20%. However, after further consideration Mr Norling thought the adjustment would be less than 10%.³²³

³²⁰ Exhibit 26, p 44, para 170.

³²¹ Ibid p 45 para 172.

³²² T26-7 ll 14-22.

³²³ T26-45 ll 20-37.

- [315] According to Mr Duane the figure of \$270m was speculative and would be an “absolute maximum.”³²⁴ Given the number of variables involved including the competitive nature of the industry and the degree of vertical integration involved in the appellant’s corporate structure,³²⁵ Mr Duane may well be correct. However, for the purpose of the exercise I will adopt Mr Norling’s figure adjusted by 10%. That is \$243 million in current day dollar terms.³²⁶
- [316] As I understand the evidence, those savings would be spread over the life of the quarry. If 40 years, that would result in a saving of about \$6m p.a. and if 60 years, then just under \$4m p.a. It also needs to be borne in mind that any associated economic costs may not be permanent in the sense that those savings may be recovered, at least in part, in the event that the resource was quarried sometime in the future.
- [317] In any event, while these cost savings are a relevant consideration, they are in no way determinative.
- [318] Having regard to the totality of the evidence concerning existing and approved quarry capacity, it seems tolerably clear that there is more than sufficient capacity to meet any demand for hard rock within the respondent’s local government area into the foreseeable future, albeit with costs ramifications. I have reached this conclusion without bringing into account as yet unapproved resources.
- [319] The evidence also satisfies me that up until at or about 2031, there will be sufficient capacity to supply not only the Gold Coast City area but also the existing Southeast Queensland and Northern New South Wales markets. The operating quarries within the Gold Coast City area have a collective resource capacity of about 530Mt with an annual production range of between 7-10Mt. The lower end of that range currently exceeds the existing demand for hard rock in the Gold Coast City area (5.1Mt) and the upper end of that range materially exceeds the projected demand of 7.0Mt in 2031. It is true that between now and at or about 2026 three of those quarries will cease operations, reducing annual production to between 5.4 – 7.5Mt.³²⁷ The lower end of that range falls below the projected 2031 demand and, at the upper end, is

³²⁴ T26-53 ll 16-37.

³²⁵ In the Gold Coast region the appellant’s quarries supply an asphalt plant, 5 concrete batching plants and a concrete batching plant at Chinderah, Northern New South Wales.

³²⁶ T26-41 L 33.

³²⁷ See Exhibit 26 at para [88] and Table 10 at p 34.

only marginally above the 2031 demand. However, this has to be seen in the context of Mr Reed's evidence that when existing and approved extractive industry are looked at together, "*between them these quarries have in excess of 635 million tonnes of approved resources...*"³²⁸ It is clear that provided sufficient resources exist quarry operators will ramp up output to match demand.

[320] According to Mr Gray, Mr Reed's assessment of 635Mt was "*within the realms of reasonableness.*"³²⁹

[321] During the course of Mr Duane's cross-examination, the following exchanges took place:³³⁰

Q: It's going to have a real benefit. It's a significant resource that's going to be there for a long time?

A: That resource would be there for a long time if it was approved, so yes, it would add to the supply in the market over a period of time. This is 2031, so yes, post-2031, if that's what was – if nothing else was approved by that time, having another quarry approved at any level would have some benefit, yes."

And then later:³³¹

Q: It's a resource that should be protected: it's vulnerable, being so close to the Gold Coast, as we know so?

A: I suppose the best way to summarise it, your Honour, is what I'm saying is, from a supply and demand assessment, there's no need for this over the period we've looked at to 2031, 2040, 2050, there might be a need, a greater need, and it might be a more pressing need for this sort of resource. So from an economist's point of view, would you protect that if it can be extracted in a manner which would be economic, yes you would."

[322] The quarry management and economic evidence has led me to conclude that it is more likely than not that the earliest that there might be a supply issue, and

³²⁸ Exhibit 63, p 20, para 113(ii).

³²⁹ T22-22, ll 35-46.

³³⁰ T26-67 ll 15-18.

³³¹ T26-68 ll 8-19.

therefore a more pressing need for an additional hard rock quarry, would be at or about 2031, but more likely at or about 2040.

[323] In this context, while Mr Norling identified a number of community benefits that would flow from the proposal if approved, and a number of negatives if it was not, at no stage did I understand him to be saying the proposed quarry was necessary to meet or remedy an undersupply situation.

[324] The evidence of the “quarry management” experts and the economists leads me to reach the following conclusions:

- (i) there is a need for the quarry in the sense that it would ensure a continuation of supply of good quality hard rock material in the Southern Gold Coast area;
- (ii) in the event that the proposal did not proceed there is a realistic risk of competition reducing with consequential price increases, and there will be additional costs to the community of in the order of \$240 million over the life of the quarry;
- (iii) notwithstanding the above, approved resources located within the respondent’s local government area would be sufficient to meet demand within that area for decades and meet demand within the wider Southeast Queensland region and Northern New South Wales for at least another 15 years; and
- (iv) it is in the interest of the broader Southeast Queensland community that this key resource be protected to ensure its availability for exploitation when appropriate.

Conclusions

[325] The evidence presented during the course of this proceeding establishes three fundamental things. First, the subject land contains a significant volume of a resource of State significance. Second, there is a level of current need for the proposal to the extent identified above. Third, the proposal is in material conflict with important objects and outcomes of the respondent’s planning scheme, particularly in respect of the protection of the biodiversity value of the site and its surrounds, the green ridgeline backdrop and urban amenity.

[326] I found this case to be quite a difficult one to decide but, on balance, I have come to the conclusion that I am not satisfied that there are sufficient grounds to justify approval. In that context I agree with the submission made by Mr Litster to the effect that, under the relevant planning regime, the balance currently favours refusal of the application. That said, there can be no doubt based on the evidence of all of the relevant experts that this significant resource should be protected for future exploitation when appropriate.

[327] For the reasons given the appeal must be dismissed.

Orders

1. The appeal is dismissed.
2. If necessary, I will hear from the parties as to any consequential orders.