



Section 7

Evaluation of the Project

PREAMBLE

This section presents a comprehensive evaluation of the Project with reference to its environmental, economic and social impacts and the principles of ecological sustainable development. Emphasis is placed upon the evaluation of residual risks following the adoption of all proposed safeguards and mitigation measures.

The evaluation considers the Project design, particularly the design and operational safeguards and mitigation measures and how the Project satisfies the relevant strategic factors and statutory requirements. This section also outlines how the community views about the Project have been addressed.

This section concludes with a review of the consequences if the Project does not proceed.



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7.1 Effectiveness of the Project Design

Cleary Bros commissioned R.W. Corkery and Co. Pty Limited and a team of specialist consultants to investigate and advise upon the most effective and environmentally responsible manner in which to develop an extension to the current extraction area within the Albion Park Quarry, and to mitigate the environmental and social factors that are relevant to the Project. An iterative approach has been adopted in designing and reviewing the Project to ensure these factors were taken into account in the design of the Project Area to ensure all residual impacts are within government-specified criteria or goals, accepted industry standards and/or realistic community expectations. Modifications to the design of the Stage 7 extraction area were undertaken as the results of various specialist consultant assessments became available.

In light of the assessments undertaken as part of the EIS, it is concluded that the Project, as designed, would result in the extension of the current extraction area in an environmentally and socially responsible manner.

7.2 Residual Environmental Risks and Impacts

Potential environmental risks and impacts of the Project were identified during the design of the Project with specific mitigation measures developed to achieve an acceptable level of impact. **Appendix E** provides a compilation of the residual environmental risks assessed for the issues raised in the SEARs and identified during community consultation, i.e. after the adoption of the range of management and mitigation measures.

Table 7.1 provides a brief summary of the key environmental risks (i.e. those given a “high” risk rating following the adoption of the range of mitigation measures) and the justification for the Project proceeding with these residual risks.

Table 7.1
Justification of Residual High Risk Impacts

Risk Source	Consequence / Hazard	Justification
Terrestrial Ecology		
Clearing of native vegetation within the Project Area.	Significant impacts upon habitat for threatened fauna species, threatened native vegetation and vegetation communities and biodiversity values.	Cleary Bros has avoided the disturbance of approximately 76% of the areas with the highest biodiversity values, and has proposed a biodiversity offset strategy that would account for the removal of fauna habitat and endangered ecological communities and species required for the ongoing extraction of hard rock resources.
Historic Heritage		
Authorised removal of known locally significant historic heritage sites.	Loss of heritage items relating to the Belmont Main House and related structures.	A dilapidation survey of the Belmont Main House has established that the structural elements of the house are in substantial disrepair and do not meet the requirements of current and applicable building codes or Australian Standards. Cleary Bros commissioned a comprehensive inventory of the residence and its associated structures and has committed to further investigations during demolition to ensure that the historical significance of the residence is not lost.



7.3 Ecologically Sustainable Development

7.3.1 Introduction

Sustainable practices by industry, all levels of government and the community are recognised to be important for the future prosperity and well-being of the world. The principles of Ecologically Sustainable Development (ESD) that have been recognised for over three decades were based upon meeting the needs of the current generation while conserving our natural resources for the benefit of future generations. In order to achieve sustainable development, recognition needs to be placed upon the integration of both short-term and long-term environmental, economic, social and equitable objectives.

Each of the sustainable development principles has been considered throughout the design of the Project. The following subsections draw together the features of the Project that reflect the four principles of ESD, namely:

- the precautionary principle;
- the principle of social equity;
- the principle of the conservation of biodiversity and ecological integrity; and
- the principle for the improved valuation and pricing of environmental resources.

7.3.2 The Precautionary Principle

In order to satisfy the principles of ESD, emphasis must be placed on anticipation and prevention of environmental damage, rather than reacting to it. Reliance has also been placed on Cleary Bros' experience and environmental performance during the operation of the current extraction operation.

During the planning phase for the Project, and throughout the preparation of the *Environmental Impact Statement*, Cleary Bros has engaged specialist consultants to examine the existing environment, predict possible impacts and recommend controls, safeguards and/or mitigation measures in order to ensure that the level of impacts satisfies statutory requirements or reasonable community expectations. Throughout the design of the Project, particular attention was placed upon key environmental aspects and the development of controls, safeguards and/or mitigation measures to achieve an acceptable outcome for the surrounding community.

The proposed environmental safeguards, controls and mitigation measures that would be implemented are presented throughout Section 6 and collectively assembled in **Appendix D**.

Examples of matters relating to the precautionary principle that were considered during the various stages of the design of the Project are discussed as follows.

Site Selection

Cleary Bros selected the location of the proposed extension to the current extraction area because the area is within a rural zone in which extractive industries are a permissible land use, and in which the native vegetation is principally regrowth. Furthermore, the location of the extension area immediately adjacent to the current extraction area would enable Cleary Bros to efficiently move into the extended area without the need for any substantial new infrastructure.



Objectives of the Project

The Project has been designed with the principal objective to continue to develop and operate the extraction area in a safe and environmentally responsible manner, which meets the requirements of local and State government agencies, accepted industry standards and wherever possible, reasonable community expectations. Cleary Bros recognises that only through comprehensive environmental assessment and an environmentally responsible approach to the design and operation of the Project can the risk of harm to the environment be minimised. Demonstration of this approach is provided both by the identification and prioritisation of issues for which a risk analysis formed an important component, and the implementation of proposed environmental safeguards, controls and mitigation measures (summarised in Section 6).

Design of Project Components

Several design aspects of the Project were modified during the planning stage in order to ensure the requirements of local, State and Commonwealth government agencies and the perceived expectations of the surrounding community were satisfied to the extent possible. Particular emphasis was placed upon the staging of the Project and subsequent progressive rehabilitation of the extraction faces that would ultimately be visible later in the Project life.

Integration of Safeguards and Procedures

The framework for ongoing environmental management, operational performance and rehabilitation of the Project Area would be provided through a new development consent and amended licences for the Project. Additionally, the following actions would be undertaken throughout the Project life.

- The *Quarry Environmental Management Plan* would be updated to include a range of on-site specific environmental procedures to achieve consistency with specified outcomes and to avoid unintended environmental impacts.
- All on-site procedures would be regularly reviewed and updated as required in light of monitoring results and any feedback received. This would be particularly relevant to blasting practices.
- A *Water Management Plan* would be implemented to minimise impacts to local water resources including from stormwater discharged from the Project Area.
- Topsoil and subsoil would be stripped and stockpiled and ultimately placed on the reshaped final landform within the Project Area.
- The operation would be subject to the annual reporting requirements of any approvals and licences granted as well as regular independent environmental audits. All management plans, Annual Reviews, and audit reports would be publicly available from the Cleary Bros website.

Rehabilitation and Subsequent Land Use

Long-term adverse impacts on the local environment would be avoided through the progressive rehabilitation of the completed extraction faces, particularly around the western and southern perimeters of the Stage 7 area. The final landform would provide a large area of predominantly gently sloping land (with up to three dams) for a range of future agricultural uses compatible with the principles of ESD.



Conclusion

The precautionary principle has been considered and adopted during all stages of the design and assessment of the Project. The approach adopted, i.e. initial assessment, consultation, specialist investigations and safeguard design, provides a high degree of certainty that the Project would not result in any major unforeseen impacts.

7.3.3 Social Equity

Social equity embraces value concepts of justice and fairness so that the basic needs of all sectors of society are met and there is a fair distribution of costs and benefits to the community. Social equity includes both inter-generational (between generations) and intra-generational (within generations) equity considerations.

Equity within generations requires that the economic and social benefits of a Project to be distributed appropriately among all members of the community. Equity between generations requires that the non-material well-being or “quality of life” of existing and future residents of the local community would be maintained throughout and beyond the Project life.

Both elements of social equity are addressed through the design of the Project itself, and the implementation of operational safeguards to mitigate any short-term or long-term environmental impacts. Examples of matters relating to social equity that are relevant to the various stages of the Project are as follows.

Identification of Project Objectives

The principal objectives for the Project centre upon:

- securing an extension to the current extraction area to recover the high quality hard rock resource that would ensure the continued provision of a range of high quality construction materials for infrastructure construction and maintenance within the Illawarra-Shoalhaven and Greater Sydney Regions;
- maintaining the level of production from the Project up to a maximum 900 000tpa in order to meet the supply demands;
- progressively rehabilitating completed benches to provide for a reduced level of visual impacts;
- maintaining local employment levels for all business units within the Cleary Bros Group and for those companies providing equipment and services to support the operation of the Albion Park Quarry; and
- maximising the recovery of the natural resource.

Site Selection

The selection of the area for the Project immediately adjacent to the current extraction area would adversely affect as few people as possible.



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Design of Project Components

The Project has been designed to maintain inter-generational equity, i.e. in recognition that the removal of the hard rock resource is a short term land use, but would create future value to the wider community through improved infrastructure, while also creating a landform suited to the resumption of agricultural activities over parts of the disturbed areas and an alternative land use to provide ongoing economic and social benefits for future generations.

Integration of Mitigation Measures and Procedures

Cleary Bros would continue to consult with the local community through the Community Consultative Committee and maintain a pro-active approach to issues of interest to the surrounding residents. This dialogue also includes a system to record, manage and respond to any issues raised and/or complaints relating to the operation.

Conclusion

The principle of social equity has been addressed throughout the site selection process and design of the Project. The ongoing operation of the Quarry would continue to contribute to the economic activity of the local and regional community through ongoing employment, and increased demand for local goods and services and flow-on effects. As such, the benefits of the Project would be distributed throughout the local community. Cleary Bros would adopt a pro-active approach in identifying and addressing any issues identified by the local community.

7.3.4 Conservation of Biological Diversity and Ecological Integrity

The protection of biodiversity and maintenance of ecological processes and systems are central goals of sustainability. It is important that developments do not threaten the integrity of the ecological system as a whole or the conservation of threatened species in the short or long term. Details of how the Project has been designed to achieve compliance with these principles are set out below.

Identification of Project Objectives

Cleary Bros would continue to undertake all activities in an environmentally responsible manner and ensure that the changes to natural components of the environment do not significantly adversely affect biological diversity or ecological integrity. As such, the Project has been designed to:

- avoid clearance, where possible, of native vegetation where there is a high concentration of older mature *Zieria granulata* plants;
- minimise the potential impacts on threatened flora and fauna (and native vegetation and fauna habitats generally) and where residual impacts remain, account for those impacts through the development and implementation of a biodiversity offset strategy; and
- rehabilitate the Project Area to a sustainable post-quarrying land use, with the creation of diverse habitat features.



Design of Project Components

Cleary Bros, on advice from its ecological experts, Niche Environment and Heritage, has provided for the conservation of biological diversity and ecological integrity through the following design elements.

- The southern and southwestern boundaries of the Stage 7 extension area have been modified to avoid clearance of areas of native vegetation with the highest biodiversity value including mature populations of *Zieria granulata*.
- All overburden and soil would be managed within the extraction area footprint, thus requiring no additional disturbance beyond the Project Area.
- The residual impacts to native vegetation and fauna habitat would be accounted for through the Biodiversity Offset Strategy.

Integration of Safeguards and Procedures

Management of biodiversity values within the Project Area would be guided by the Quarry's *Biodiversity Management Plan* that would be updated to reflect the range of additional activities to be undertaken in Stage 7. The Plan would include protocols for the following activities.

- Soil stripping and stockpiling
- Vegetation clearing and mulching protocols
- Clearing of hollow-bearing trees
- Weed management
- Bush fire management
- Threatened species management
- Progressive and final rehabilitation of the Project Area

Residual impacts to native vegetation would be offset in accordance with the provisions of the BC Act through the implementation of the proposed Biodiversity Offset Strategy.

Progressive rehabilitation of the Project Area would include the establishment of native vegetation on the terminal extraction benches.

Conclusion

The Project addresses the principle of conservation of biological diversity and ecological integrity through reducing the area of threatened communities and species to be disturbed. Weed eradication and feral animal control programs would be implemented as appropriate and would further assist in addressing the principles of sustainable development.

7.3.5 Improved Valuation and Pricing of Environmental Resources

The issues that form the basis of this principle relate to the acceptance that the polluter pays, all resources are appropriately valued, cost-effective environmental stewardship is adopted and the adoption of the user-pays principle based upon the full life cycle of the costs. A reflection of these issues on the Project is set out below.



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Identification of Project Objectives

Cleary Bros' principal objective is to operate the Project in a profitable, safe and environmentally responsible manner, which would enable the full implementation of all required mitigation measures.

Design of Project Components and Integration of Safeguards and Procedures

The extent of research, planning and design of mitigation measures to prevent irreversible damage to environmental resources, other than the material to be extracted, is evidence of the value placed on these resources.

Rehabilitation and Subsequent Land Use

The design of the final landform to provide a useful legacy for future agricultural activities together with the establishment of native vegetation on the terminal benches illustrates the value placed by Cleary Bros on both the commercial and ecological elements of the Project.

Conclusion

The value placed by Cleary Bros on environmental resources is evident in the identification of Project objectives, and the extent of the planning and mitigation measures to be implemented to minimise irreversible damage to the environment on and surrounding the Project Area. The ongoing operation of the extraction area is a commercial undertaking and it would enable Cleary Bros to undertake all environmentally-related tasks and meet all commitments in all approvals, licences and permits and those made to the surrounding landowners and local community.

7.3.6 Conclusion

The approach taken in planning the Project has been multi-disciplinary, involved consultation with potentially affected local residents and various government agencies and emphasis on the application of a range of mitigation measures to minimise potential environmental, economic and social impacts. The design of the Project has addressed each of the sustainable development principles, and on balance, it is concluded that the proposed extension of the extraction area within the Quarry is consistent with the principles of ecological sustainable development.

7.4 Justification of the Project

7.4.1 Introduction

In assessing whether the development and operation of the Project is justified, consideration has been given to biophysical, economic and social factors including the predicted residual impacts on the local and wider environment and the potential benefits of the Project. When considering the predicted residual impacts, a review of the proposed mitigation measures was also undertaken to determine the emphasis placed on impact minimisation and the incorporation of the principles of ESD. This section also considers the consequences of the Project not proceeding.

At the outset, it was recognised that when designing the Project, emphasis needed to be placed upon key factors relating to air quality, noise and blasting, visibility and terrestrial ecology. Many of the specific issues were identified through consultation with neighbours, particularly the



owners of “Figtree Hill”, given its comparatively close proximity to the Project Area. Section 1.5 provides an overview of the alternatives considered during the design of the Project and the reasons why the design presented in Section 3 was adopted.

Key elements of the Project design that have accommodated the above key factors are as follows.

1. The design of the extraction sequence maximises the noise protection as far as reasonably practicable by planning operations in areas largely shielded by progressive extraction faces. Section 3.6.2.3 describes the extraction staging.
2. The long-term haul road through the extended extraction area would be positioned close to the northern and eastern boundaries of the operational extraction stages to maximise the attenuation of noise and air quality impacts.
3. The design of the extraction benches and faces would provide for the early rehabilitation of the visible overburden materials and two 7m extraction faces. These elements would enable vegetation to become well established prior to parts of the faces becoming visible from distant vantage points.

It is noted that no changes are proposed to the existing and approved extraction method, annual production level, product transportation, operating equipment and processing operations. The proposed hours of operation are also unchanged from the existing approved hours, however, operations in the Stage 7 Area would be reduced to a maximum of 16 Saturdays per calendar year.

The operational procedures already adopted for the current extraction area have been assessed as appropriate for the proposed Stage 7 extension.

7.4.2 Biophysical Impacts

Air Quality

Detailed dispersion modelling has characterised the incremental and cumulative air quality impacts of the Project at surrounding sensitive receptors with respect to the ambient air quality National Environment and Protection Measures criteria. Concentrations of total suspended particulates, PM₁₀, PM_{2.5} and deposited dust generated by the Quarry would remain below the relevant annual average assessment criteria. Modelling of predicted air quality impacts also indicates that emissions of PM₁₀ and PM_{2.5} would remain below the relevant 24-hour average assessment criteria. Additionally, predicted nitrogen dioxide concentrations associated with the Project would remain below the relevant annual and 1-hour assessment criteria.

The greenhouse gas assessment concluded that the Project would generate 7 712.2t CO₂-e per year of Scope 1 emissions and 396.2t CO₂-e per year of Scope 3 emissions. The Scope 1 emissions generated by the Project would represent <0.0059% of total NSW greenhouse gas emissions and <0.00014% of total Australian greenhouse gas emissions per year.

Noise and Blasting

Noise generated by earthmoving equipment and mobile processing equipment during typical extraction and processing operations would be attenuated principally through the design of the Stage 7 area and a range of standard noise mitigation and management measures. With the adoption of these measures, noise levels at all surrounding residences and the Shellharbour Anglican College would satisfy the respective Project Noise Trigger Levels.

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When short-term operations are underway, compliance is also predicted at all residences and the Shellharbour Anglican College except those on “Figtree Hill”. Cleary Bros and the owners of “Figtree Hill” have negotiated an agreement that addresses a range of matters, including noise impacts. Under that agreement, the owners of “Figtree Hill” have agreed to accept Project-related noise impacts to the extent identified in this EIS.

Airblast and ground vibration generated during blasting would be controlled through the detailed design of each blast utilising the site laws prepared from monitoring results of previous blasts. Compliance with standard blasting limits for airblast overpressure and ground vibration is predicted for all blasts within the Stage 7 extension at all existing residences including those on the “Figtree Hill” property.

Visibility

The staged design of the extraction operations within Stage 7, together with proposed amenity barriers and tree screens, would result in little visibility of the extraction activities during the first 10 to 15 years of operations. Beyond that time, parts of the upper extraction faces on the western side of Stage 7 would progressively become visible from the “Figtree Hill” property to the north and from elevated areas within Shell Cove West, east of the Princes Highway. However, the west to east progression through Stages 7c and 7d and the adoption of the Eastern Rim would minimise visual impacts during the latter half of the Project life. The establishment of vegetation on the upper western benches and the dark grey exposed extraction faces would effectively minimise contrasts and soften views of the exposed upper sections of the extraction area visible from the “Figtree Hill” residences and Shell Cove West. Cleary Bros and the owners of “Figtree Hill” have negotiated an agreement that addresses a range of matters, including visibility. Under that agreement, the owners have agreed to accept Project-related visibility impacts to the extent identified in this EIS.

Overall, the proposed visual impacts generated by the Project have been assessed to be acceptable given the extent of visual mitigation that would be adopted in the context of the quantity of resources that would be recovered to provide high quality raw materials for the ongoing development of the Illawarra-Shoalhaven and Greater Sydney Regions.

Biodiversity

Cleary Bros has minimised impacts to biodiversity values within the Project Area through detailed design of the Project. Residual biodiversity impacts associated with the Project would be managed through a combination of biodiversity offsetting and various management measures which would be outlined in a Biodiversity Management Plan for the Quarry.

A landscape assessment and targeted biodiversity surveys within the Stage 7 area concluded that the Project would result in the removal of 7.61ha of native vegetation, including areas of the following two threatened ecological communities:

- 4.69ha of ‘Whalebone tree – Native Quince dry subtropical rainforest’ (PCT 1300); and
- 2.92ha of ‘*Melaleuca armillaris* Tall Shrubland’ (PCT 720).

This constitutes the removal of approximately 0.07% of PCT 1300 and approximately 1.46% of PCT 720 from the total area of these communities. Additionally, the Project would result in the loss of 3.01ha of *Zieria granulata* habitat (including an estimated 2 170 mature individual plants) and 0.15ha of *Cynanchum elegans* habitat (including one known individual).



Both *Z. granulata* and *C. elegans* are species credit species for the Project, with no other flora or fauna species credit species identified during site surveys. For the purposes of the BAM Calculator, a total of 14 ecosystem credit species were assumed to be present.

A referral for the Project has been lodged with the Commonwealth Department of Agriculture, Water and the Environment, who confirmed that the Project is a controlled action as it would likely result in significant impacts to listed threatened species and communities.

Cleary Bros intends to offset impacts from the Project by retiring credits based on the like-for-like rules via:

- establishment of a Stewardship Site; and/or
- facilitating the establishment of a Stewardship Site by a third party; and/or
- making a payment into the Biodiversity Conservation Fund calculated using the offset payments calculator.

Aboriginal Heritage

The Project Area is located within the traditional land of the Wodi Wodi, a group which spoke a variant of the Dharawal language. Evidence of occupation of the Illawarra-Shoalhaven Region obtained through analysis of middens at Lake Illawarra indicates Aboriginal occupation of these areas dates back 6 000 to 7 000 years. An analysis of Aboriginal sites previously recorded within a 6.5km² area centred on the Project Area identified a total of 92 Aboriginal sites, with the majority representing either artefact (64%) or shell (26%) site types.

No Aboriginal sites, potential archaeological deposits, artefacts or features were identified during a survey of the Stage 7 area. The area was assessed as having low scientific and historical value, moderate aesthetic value and high cultural value. Due to the low potential for the presence of Aboriginal sites, in combination with the post-settlement history of disturbance from human activity, it is anticipated that the Project would not impact any Aboriginal heritage values.

Historic Heritage

Heritage items and associated deposits and features within the Belmont Estate could contribute to the understandings of local agricultural dairying and domestic cultural practices from the late 19th century to the late 20th century. An assessment of the historic heritage items within the Stage 7 area concluded that Belmont Main House has high archaeological potential, the associated former Bails and Dairy and dry stone walls have moderate archaeological potential and all other items have low archaeological potential. Both Belmont Main House and the former Bails and Dairy were determined to have local heritage significance, whilst all other items hold no heritage significance.

The Project would directly impact the heritage significance of the Belmont Estate through the demolition of Belmont Main House and associated structures. A photographic archival recording of Belmont Main House has been completed in accordance with the relevant guidelines. The Quarry's existing Heritage Management Plan would be updated to detail measures including the salvage and reconstruction of dry stone walls and the monitoring of demolition and ground disturbance works within the Stage 7 area.



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Soil and Land Capability

Soil stripping and management would be undertaken progressively throughout the Project life. Topsoil and subsoil would be progressively stripped within each stage and either stockpiled, used to construct amenity barriers, or placed directly on completed landforms for rehabilitation. A soil assessment for Stage 7 identified no significant constraints for the use of these soils for rehabilitation and revegetation purposes. Amelioration and fertilization of topsoil and subsoil would be undertaken to ensure ideal growing conditions. As a result, the Project would not have a significant impact on soil resources.

The existing land capability of Stage 7 varies between Class III (high capability) in flatter areas to Class VI (low capability) generally in steeper areas. Post quarrying, the slope and plains domains within the final landform would be returned to Class IV to Class VI land capability, suitable for ongoing pasture and grazing purposes. The other domains, comprising approximately 25% of the Project Area would comprise Class VII and VIII land suitable for nature conservation.

Surface Water

The Project would generate sediment-laden runoff which would be directed to internal sumps within the Project Area. The accumulated water would either be used for dust suppression or tested, and if necessary treated, to ensure that it meets quality criteria nominated in the Quarry's Environment Protection Licence, prior to controlled discharge after rainfall events. As a result, the Project would not have a significant impact on surface water quality or overall downstream flows.

Groundwater

Modelled groundwater inflow rates indicate increasing inflow as extraction within the Stage 7 area progresses. The current groundwater inflow into Stages 1 to 6 (38kL/day) is predicted to increase to a peak of approximately 187kL/day during Stage 7d. Groundwater drawdown of 2m would extend to an average of 150m from the boundary of Stage 7, with a maximum extension of the 2m drawdown level occurring approximately 250m to the west of Stage 7 in the vicinity of the existing extraction area. Modelled baseflow reductions associated with groundwater level drawdown would peak at <5kL/day during Stage 7d.

Project-related groundwater impacts have been assessed as less than the *NSW Aquifer Interference Policy's* Minimal Impact Considerations. The 2m groundwater level drawdown would not encroach on any registered groundwater bores for water supply and no drawdown impacts would be experienced by high priority groundwater dependent ecosystems. Additionally, the Project is unlikely to lower the groundwater beneficial use category beyond 40m from the Project Area and the risk of potential groundwater contamination was assessed as low risk.

Assuming that groundwater and surface water takes are partitioned, the Project would require groundwater entitlements for 66ML from the Sydney Basin South Groundwater Source and surface water entitlements for 2ML under the Minnamurra River Management zone of the Illawarra Rivers Water Source.

Traffic and Transportation

The Project would not result in additional Quarry-related traffic on the public road network. Taking into consideration the substantial improvements in the local traffic environment associated with the recently completed Albion Park Rail Bypass and that the vast majority of the



Quarry-related transportation would continue to utilise only a 750m section of the East West Link before accessing the State Road network, the Project would have a negligible impact on traffic and transportation.

Economic

The Economic Assessment determined that the Project would provide net production benefits to NSW and would provide direct economic activity, including jobs, to the local area economy, and indirect economic activity to the local area via both wage and non-wage expenditure. The predicted socio-economic impacts of the Project are therefore positive for the local region and for NSW.

Social

The Social Impact Assessment determined that the Project would generate a positive impact to the wider community in terms of continuation of employment, workforce and supplier expenditure, and community investment.

The Project Area is suitably located in a rural area where surrounding residents are few in number compared to the more distant suburban areas.

A range of mitigation measures would be adopted to minimise adverse impacts to rural residents and suburban areas, many of which relate to noise, blasting, air quality, visibility and historic heritage. Enhancement of Cleary Bros' social investment and engagement strategies are also proposed.

The predicted mitigation of social impacts would primarily be direct and localised and relate to the neighbours' way of life and surroundings, and their social amenity together with impacts relating to personal and property rights.

7.4.3 Cumulative Impacts

Cumulative impacts from the Project are addressed in the impact assessments provided in Section 6. In summary, the cumulative impacts from the Project and surrounding quarry operations are considered to be acceptable for the key environmental factors of air quality, noise and blasting, biodiversity and visual amenity. It is noted that the Project would not require any change to the currently approved transportation limits for the Quarry, and hence there would be no cumulative impact from increased traffic levels from the Project.

7.5 Strategic Support and Statutory Compliance

7.5.1 Strategic Support

Strategic support for the Project is provided by a range of NSW Government planning documents and instruments (see Section 2). The Project would continue to meet market demands for the supply of high-quality hard rock products in local and regional markets. A significant proportion of Quarry sales are for the supply of products to critical infrastructure projects in the Illawarra-Shoalhaven Region, including for the construction of roads, bridges, railways and drainage controls.

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The high-quality hard rock resources within the Project Area are located in a defined Mineral Resource Area. Cleary Bros' Quarry is one of a number of quarries in this defined Mineral Resources Area. The transition area around the Mineral Resource Area comprises predominantly rural land with a low population density and comparatively few landowners within 1.1km of the Project Area.

The local and regional community provide both the markets for the Quarry's products and the workforce, suppliers, and services required to operate the Quarry. Local infrastructure, particularly the local road network, provides an excellent basis for the distribution of the Quarry products. The Project Area is well situated in that it is not prone to flooding, landslips, mine subsidence or coastal hazards.

7.5.2 Statutory Compliance

Development consent for the Project is sought under the State Significant Development (SSD) provisions of Division 4.7 of the EP&A Act. The NSW Minister for Planning and Public Spaces or the Independent Planning Commission is the consent authority for the Project.

The Project Area includes land zoned RU1 and C2 under the Shellharbour LEP. Extractive industries are permissible with consent within both zones.

A delegate of the Commonwealth Minister for the Environment determined on 5 February 2021 that the Project would be a "controlled action" under Section 75 of the EPBC Act due to potential impacts on listed threatened species and communities. The delegate determined that the Project is to be assessed under Schedule 1 of the Bilateral Agreement between the Commonwealth and the NSW government made under Section 45 of the EPBC Act.

Appendix B identifies all relevant statutory requirements for the Project, and where each requirement is addressed in the EIS. Further details on other approvals required for the Project are provided in Section 4.3.

7.6 Consequences of not Proceeding with the Project

The consequences of not proceeding with the extension of the current extraction area within the Quarry include the following.

1. The opportunity to extend the current extraction area to provide a range of aggregates, armour rock, and road pavement products for use in the Illawarra-Shoalhaven and Greater Sydney Regions would be foregone.
2. The opportunity for an independent and locally owned supplier of quarry products to the Illawarra Region would be foregone.
3. The ability to supply bespoke quarry products to the Illawarra and Greater Sydney Regions would be significantly limited.
4. The opportunity for the Cleary Bros Group to obtain quarry products at a competitive price for use in the projects undertaken by the Group would be foregone.



5. The opportunity to maintain the current employment levels in the local area would be foregone.
6. The economic benefits to the local area, NSW and Australia would not occur.
7. Minor adverse environmental impacts attributed to the Project that are identified throughout Section 6 of this document would not occur. It is considered that the level of predicted impacts would be acceptable given the extent of mitigation measures integrated into the design and operation of the Project.

The benefits of proceeding with the extension to the current extraction area are considered to outweigh the predicted impacts on the surrounding environment that would result if the Project is approved. The consequences of not proceeding with the Project also weigh heavily in favour of proceeding with the Project.

7.7 Conclusion

The Project has been designed to address the matters raised by the community and all levels of government, as well as the principles of ecologically sustainable development. The Project provides for the extraction of the identified hard rock resource and general operation of the extraction and processing operations in an environmentally responsible manner. The Project incorporates a range of design and operational mitigation measures to ensure all relevant statutory goals and criteria, environmental objectives and reasonable community expectations are satisfied. Importantly, the environmental aspects of the Project have been assessed cumulatively with those of the adjoining quarries with the collective impacts assessed to be acceptable.

This document and the range of specialist consultant studies undertaken have identified that the Project should proceed because it would:

- contribute towards satisfying the demand for hard rock products required for the construction industry materials, particularly within the Greater Sydney and Illawarra Regions;
- have a minimal and manageable impact on the biophysical environment;
- satisfy sustainable development principles; and
- result in a net benefit for the local community, the Shellharbour Local Government Area and the State of NSW.