

APPENDIX F

Social Impact Assessment

CONCRUSH INCREASE TO CAPACITY PROJECT

Social Impact Assessment

FINAL

November 2018



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Social Impact Assessment

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Prepared by
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on behalf of
Concrush Pty Limited

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1.0 Introduction

Concrush Pty Ltd (Concrush) is a locally owned and operated business within the suburb of Teralba, in the Lake Macquarie Local Government Area (LGA). The company was established in 2002 after recognising the need for a construction and demolition recycling facility in the area.

Concrush operates a resource recovery facility on part of Lot 2 DP 220347 at 21 Racecourse Road in Teralba, New South Wales (NSW). It covers an area of approximately 2.4 hectares (ha) and is located between Cockle Creek to the east and the Main North Rail Line to the west (refer to **Figure 1.1**). The facility currently recycles approximately 9,000 tonnes (t) of waste material per month and stores up to 40,000 t of waste material on site at any one time.

Following strong demand for their recycling service, Concrush is proposing to increase the processing and storage capacity of their existing facility. The Project is a State Significant Development (SSD) and requires approval under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The development application will be lodged with the Planning Secretary of NSW Department of Planning and Environment (DPE).

This Social Impact Assessment (SIA) has been prepared by Umwelt (Australia) Pty Limited (Umwelt) as part of the Environmental Impact Assessment (EIA), on behalf of Concrush. The SIA has been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs) for the Project (SSD 8753), which was provided to Concrush on 25 October 2017 (DPE, 2017) and as outlined in **Section 1.2**.

1.1 Project description

Concrush Pty Ltd (Concrush) is seeking development consent to increase the processing and storage capacity of the existing resource recovery facility located on part of Lot 2 DP 220347 at 21 Racecourse Road, Teralba, NSW. The Concrush increase to capacity project (the Project) will involve alterations and additions to the existing facility in order to provide greater on-site storage capacity that is sufficient for the increased level of throughput.

The Project is a State Significant Development (SSD) and requires approval under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), for which the Minister for Planning is the consent authority.

The Proponent

The proponent for the Project is Concrush. Concrush was established in 2002 after recognising the need for a construction and demolition recycling facility in the Lake Macquarie region. Concrush is a locally owned and operated business based at Teralba.

The Concrush facility provides cost effective options for recycling of concrete, asphalt, bricks, pavers, roof tiles, wall and floor tiles, rock, sand, plasterboard and green waste for domestic households and commercial industry. These materials are then recycled into specification and non-specification quality products such as: roadbase, drainage aggregates, pipe bedding and haunch, packing fines, decorative aggregates and mulches. These products are used within the civil and construction industries or for commercial, domestic and household applications.

Description of the Project

Following strong demand for their recycling service, Concrush is seeking an increase to the processing and storage capacity of the existing facility. Concrush currently recycles approximately 108,000 t of waste material per annum. Concrush is seeking approval for an increase in throughput capacity to up to 250,000 t of waste material recycled per annum, including both construction and demolition waste and green waste. Concrush will require a waste storage capacity on-site that is sufficient for this level of throughput.

The Project will be constructed over two stages to allow for the proposed Project elements to come online as required in line with increasing production.

A description of the individual elements of the proposed Project including additional plant and equipment are summarised below.

Table 1.1 Proposed Project Components

Component	Description
Hardstand areas	Hardstands will be constructed in material processing areas and stockpile areas (will require some site levelling). Hardstands will consist of 200 mm thick recycled roadbase). Internal access roads will have a two coat seal.
Material Processing Areas	Processing areas for the crushers and screens.
Waste and Product Stockpile Areas	Waste and product stockpiles will be established with a stockpile height of up to 10 metres (m). It is anticipated that up to 150,000 t of material will be stored onsite.
Upgrade of existing facilities	The existing weighbridge and office will be upgraded, and the existing lunch room and maintenance shed will be relocated to facilitate the new site layout.
Waste Tracking System	The existing Wasteman software will be used to track the details of all inbound and outbound loads
Production Compound	The relocated lunch room, toilet and maintenance shed will be grouped together to form a compound for production staff.
Retail Area	This area will be restricted to light vehicles and small trucks and will include an area for tipping and an area containing concrete bays of products for sale.
Storage Bays	Concrete storage bays will be constructed using 1 m ³ concrete blocks.
Concrete Walls	A two metre high concrete wall will be constructed close to the southern Project site boundary using 1 m ³ concrete blocks. The wall will prevent stockpiled material encroaching on swale drains and moving offsite. Concrete walls may also be used to delineate other areas of the site.
Green Waste Pasteurisation	An aeration system using four electronically driven and computer controlled fans to push air through movable perforated pipes underneath the pasteurisation piles will be implemented in the green waste area. This system allows more control of oxygen levels in the pasteurisation process compared to the tradition turnover process.
Wheel Wash	A vehicle wheel wash bay will be constructed immediately after the exit weighbridge to reduce tracking of material onto public roads.
Concrete Washout Bay	A wet concrete washout bay will be constructed consisting of a bunded, impermeable area with an isolated catchment. Wet concrete and agitator washout will be captured in the concrete washout bay.
Water Management System	The existing Water Management System (WMS) will be upgraded involving resizing of existing sediment basins, new sediment basins, swale drains and a leachate dam and artificial wetland to treat nutrient runoff. Water tanks and associated poly pipe and pumps will be installed to allow collection and re-use of stormwater for dust suppression.

Component	Description
Trommel Screening Machine	Addition of a Trommel screening machine for sorting of green waste.
Primary Jaw Crusher	The primary jaw crusher will be replaced on a like for like basis as part of future operations.
Perimeter Landscaping - Mounds, Fencing and Lighting	Landscape mounds will be established on the perimeter to limit visibility. 1.8 m high security fencing and security lighting are also to be installed.
Utilities	The existing Ausgrid connection is via a power pole in the north east corner of the site. The power supply will be extended to the south west corner of the site via an underground connection.
Pug mill	A pug mill may be installed in the future to allow fast mixing of materials to produce products such as road base.
Ballast wash facility	A processing area may be dedicated to a ballast wash facility to allow for processing of rail ballast.

It is anticipated that the volume of materials recycled and products sold will increase over a period of time up to the maximum production level of 250,000 t per annum (pa). To most efficiently meet the increase in demand for recycling of materials and Concrush products, it is proposed to stage the Project by undertaking some elements of the site upgrade early and implementing other elements of the Project as required when a certain production level is reached. Two Project stages and the associated approximate production level have been identified as follows:

- Stage 1 – upon receipt of all approvals required for the Project
- Stage 2 – at approximately 200,000 tpa up to 250,000 tpa.

The key components of the two Project stages are described below.

Stage 1

Stage 1 would be implemented once all approvals have been granted. The key elements of Stage 1 are:

- Construction of all hardstand areas (processing areas and waste and product stockpiles)
- Creation of the retail area
- Widen site access and install sliding gate
- Re-configuration of existing exit only weighbridge to allow for vehicle exit and entry to facilitate entry to the site
- Construct production compound by relocating maintenance shed and lunch room and toilet
- Augment the existing water management system to incorporate the leachate dam, constructed wetland, additional sediment basins, drainage swales, flood mitigation bund, water storage tanks and sprinkler systems
- Establish wheel wash, landscaping mounds, fencing, power line extension and lighting
- Two coat seal of internal access roads
- Replace primary jaw crusher.

Stage 2

Stage 2 would be implemented when production reaches approximately 200,000 tpa up to the Project limit of 250,000 tpa. The key elements of Stage 2 are:

- Relocation of the existing exit weighbridge, construction of a new entry weighbridge and establishment of the new weighbridge office
- The existing entry weighbridge becomes the retail area weighbridge and the existing weighbridge office becomes the retail area weighbridge office
- Construction of a new exit onto Racecourse Road from the retail area for light vehicles (less than 2 t) only
- Establish pug mill
- Establish ballast wash facility
- Establish trommel screening machine for green waste
- Establish aeration system for green waste pasteurisation.

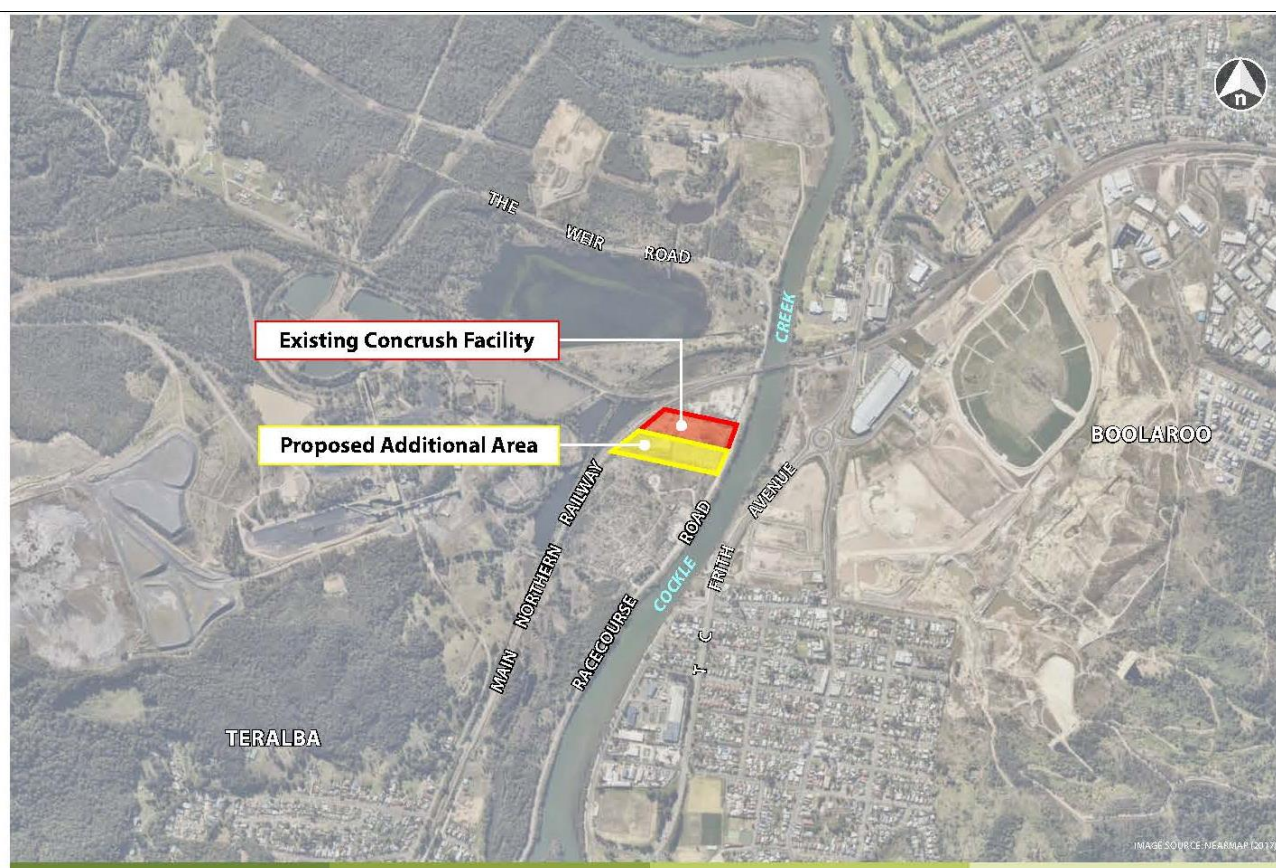


Figure 1.1 Locality Figure

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Legend

-  Project Site
-  Key Northern Transport Route
-  Key Southern Transport Route

Figure 1.2 Transport Route for Vehicle Access

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1.2 Secretary environmental assessment requirements

The SEARs for the Project (SSD 8753) were provided to Concrush on 25 October 2017 (DPE, 2017). The requirements of relevance to the SIA are outlined in **Table 1.2** below.

Table 1.2 SEARs (DPE, 2017)

Social Requirements	
During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners.	
In particular, you must consult with:	
<ul style="list-style-type: none"> • Ausgrid; • Lake Macquarie City Council; • Department of Primary Industries; • Environment Protection Authority; • Fire and Rescue NSW; • Hunter Water; • Office of Environment and Heritage; 	<ul style="list-style-type: none"> • Roads and Maritime Services; • Rural Fire Service; • Subsidence Advisory NSW; • Sydney Trains; • Transport for New South Wales; and • The surrounding land owners and occupiers that may be affected by the proposal.

1.3 Social impact assessment framework

The SIA program has been designed to:

- Profile key communities, both in proximity to and, associated with the proposed Project.
- Scope and assess the potential social issues/impacts and opportunities associated with the Project.
- Develop strategies to address the identified issues/impacts and opportunities and monitor and manage social impacts associated with the Project.

Engagement with the community has been a key component of the program, at key phases of the assessment, notably in the scoping of project issues and impacts.

1.4 Report structure

Based on the above framework, the SIA has been structured according to a number of key sections as detailed below:

- **Section 1:** Provides an introduction and background to the proposed Project, including a summary of key project components.
- **Section 2:** Details the methodology employed as part of the SIA.
- **Section 3:** Comprises a socio-economic profile and demographic analysis of Lake Macquarie Local Government Area (LGA) and the suburb of Teralba.
- **Section 4:** Provides an assessment of impacts and opportunities associated with the Project.
- **Section 5:** Discusses recommended strategies to manage the predicted and perceived socio-economic impacts identified during the assessment process and enhance the potential benefits of the project.

2.0 SIA Methodology

2.1 Overarching principles for social impact assessment

SIA is an approach to predicting and assessing the likely consequences of a proposed action in social terms and developing options and opportunities to improve social outcomes. Best practice SIA is participatory and involves understanding impacts from the perspectives of those involved in a personal, community, social or cultural sense to provide a complete picture of potential impacts, their context and meaning.

The generally agreed international principles relating to SIA (Vanclay, 2003) identify social impacts as the matters affecting, directly or indirectly:

- People's way of life, that is: how they live, work, play and interact with one another on a day to day basis.
- Their culture, that is: their shared beliefs, customs, values and language or dialect.
- The community, that is: its cohesion, stability, character, services and facilities.
- Their political system, such as: the extent to which people are able to participate in decisions that affect their lives, the level of democratisation that is taking place, and the resources provided for this purpose.
- Their environment, such as: the quality of the air and water people use, the availability and quality of the food they eat, the level of hazard or risk, dust and noise they are exposed to, the adequacy of sanitation, their physical safety, and their access to and control over resources.
- Their health and wellbeing: health is a state of complete physical, mental, social and spiritual wellbeing and not merely the absence of disease or infirmity.
- Their personal and property rights: particularly whether people are economically affected or experience personal disadvantage which may include a violation of their civil liberties.
- Their fears and aspirations, that is: their perceptions about their safety, their fears about the future of their community, and their aspirations for their future and the future of their children.

As is the case with any type of change, some individuals or groups within the community may benefit, while others may experience negative impacts. If negative impacts are predicted, it is the role of the SIA to determine how such impacts may be addressed effectively to reduce the degree of social disruption to those affected. If positive impacts are predicted, the aim of the SIA is to maximise these opportunities and identify how they might be further enhanced.

Monitoring and evaluation are also a key component of an SIA process to identify any unanticipated impacts that may arise as a result of the Project.

2.2 Assessment activities

The SIA for the project has involved a number of key phases:

- Developing a profile of social and economic context in which Concrush is located, at a local and regional scale, and summarising the social and community issues of relevance to the communities of interest.
- Identifying the impacts and opportunities that are most important to the local community in relation to the Project, through engagement and consultation with near neighbours and other key stakeholders within the Lake Macquarie LGA.
- Assessing and predicting the significance of impacts associated with the project through the application of a 'risk-based approach'; integrating both perceived and technical assessments of risk. Where available, relevant data sets have been used to inform the assessment of impacts associated with the project and to explore perceptions raised in consultation with the community. This approach affords greater integration with the broader environmental assessment work so that impacts of relevance to technical specialists and community members are adequately discussed and considered in the impact assessment process.
- Developing strategies that address and manage the predicted social impacts associated with the project and those which may enhance opportunities in a manner that values existing community aspirations and assets.
- Identifying what will require monitoring should the project be approved and how any unanticipated social impacts that may result from the project will be identified.

Table 2.1 summarises the social assessment mechanisms specifically utilised during each phase of the SIA program. This consultation has been further complemented by engagement undertaken by the broader Project team, with Government agencies and other key stakeholders, in the course of other assessment activities.

Table 2.1 Summary of Social Impact and Opportunities Assessment and Engagement Methods

Method	Description
Phase 1 – Program planning	Development of a stakeholder engagement strategy for Concrush
Phase 2 – Community profiling	Examination of a range of secondary data sources e.g. census, social and community indicators, local media sources; and collection of primary data through interviews with key stakeholders.
Phase 3- Scoping of issues and opportunities	Review and analysis of previous stakeholder consultation outcomes and complaints data from Concrush. Semi-structured interviews with near neighbours and businesses to identify perceived issues and opportunities relating to the project, followed by ranking of perceived issues and opportunities relative to frequency of response. Project briefings to employees, Lake Macquarie City Council (LMCC) and key State Government Agencies to present the Project and obtain feedback on Project aspects.
Phase 4 – Assessment of Impacts and Opportunities	Assessment of social risk and prediction of social impacts associated with the project.
Phase 5 – Prediction of impact and Strategy Development	Identification and development of appropriate strategies to address predicted project impacts and monitor change.

2.3 Project stakeholders

Social impact assessment involves the cooperation and coordination of a number of ‘social partners’ or ‘stakeholders’ As Burdge (2004) outlines, stakeholders may be affected groups or individuals that:

- Live nearby the resource/project
- Have an interest in the proposed action or change
- Use or value a resource
- Are interested in its use
- Are forced to relocate.

As part of the SIA for Concrush, a number of key stakeholders have been identified and involved in the program. These stakeholders are identified in **Table 2.2**.

The SEARs for the Project have also involved consultation with relevant local, State or Commonwealth Government authorities as listed in **Table 2.2**. Consultation outcomes with Agency’s are documented in **Section 5.1** of the EIS.

Table 2.2 Stakeholder Groups

Stakeholder Groups	Stakeholder
Local Community	Proximal residents and commercial stores in Boolaroo, Teralba and along the transport route (~475)
Employees	Concrush workforce (10)
State Government	Department of Planning and Environment (DPE) Environment Protection Authority (EPA) NSW Roads and Maritime Services (RMS) NSW Office of Environment and Heritage (OEH) NSW Department of Primary Industries (DPI) Fire and Rescue NSW Rural Fire Service Ausgrid Hunter Water Subsidence Advisory NSW Sydney Trains Transport for New South Wales Other Agencies as required
Local Government	Lake Macquarie City Council (LMCC)
Education and Community Groups	Barnsley Public School Teralba Public School Club Macquarie Function and Accommodation Centre
Industry	Skyline Supplies Lucky’s Scrap Metals Bunderra Estate (via Stevens Group / Ferrier Hodgson)
Media	Newcastle Herald The Star (Newcastle and Lake Macquarie) ABC News (online and radio, 1233 ABC Newcastle)

2.4 Mechanisms for engagement

A range of mechanisms have been utilised to obtain the input of various stakeholder groups. The mechanisms to engage with local landholders, key stakeholders and the wider community during the preparation of the SIA/EIS are outlined in **Table 2.3** below.

Table 2.3 Engagement Mechanisms

Stakeholder Group	SIA/EIS Development
Local Community	Provision of Project Information Sheets summarising key aspects of the Project, approvals process timeline and opportunities for stakeholders to be involved in the consultation process. Telephone and email communications. Personal meetings with potentially affected landholders.
Employees	Briefing for employees. Provision of Project Information Sheets.
State Government	Targeted meetings, telephone calls and written correspondence with key agencies post PEA lodgement as required.
Local Government	Targeted meetings with Lake Macquarie Council representatives, post PEA lodgement.
Education and Community Groups	Personal interviews with stakeholders to outline the Project aspects and document issues and opportunities. Provision of Project Information Sheets.
Industry and Local Businesses	Personal interviews with stakeholders to outline the Project aspects and document issues and opportunities. Provision of Project Information Sheets.

In summary, consultation with community stakeholders has included telephone calls, semi-structured interviews, emails and the distribution of two Project Information Sheets as detailed below:

- October 2017 - Project Information Sheets were provided to approximately 475 local residents and commercial stores in Boolaroo, Teralba and along the transport route. This information sheet summarised the key aspects of the Project, approvals process timeline and invited stakeholders to be involved in the SIA and consultation process.
- October 2017 - telephone calls, emails and interviews were undertaken with the local industry and education and community groups identified in **Table 2.2**.
- August 2018 - a second Project Information Sheet was distributed to the same distribution areas as the October 2017 information sheet. The purpose of this consultation was to summarise the results of the SIA and Environmental technical studies and to provide further detail on the proposed exhibition period for the EIS.

3.0 Socio-Economic Context and Profile

A baseline social profile gathers knowledge of primary and secondary data sources to increase levels of understanding of the existing social and economic context, in which a project is based. The profile is a necessary component of the SIA and provides a foundation of data/information from which impacts associated with the project may be predicted.

Data sources utilised in the preparation of the profile include:

- ABS Australian Census of Population and Housing (ABS, 2016a-c).
- Local and State Government reports.
- Relevant research reports and publications, including an Economic Impact Assessment for the project.
- Other social indicator datasets e.g. Social Health Atlas (PHIDU, 2015) and Bureau of Crime Statistics and Resources (BOSCAR, 2015).
- Review of relevant print and selected online media.

The profile outlines:

- Features of the locality identified as being of value, importance or high sensitivity in social terms.
- Relevant current and anticipated social change processes or social trends within the locality.
- History of the operation and how communities near the project site and within the surrounding region have experienced the project and others like it.

The Project is located in Lake Macquarie LGA, in the suburb of Teralba. The nearest residential areas include:

- Boolaroo - located approximately 330 m to the south-east of the Project area.
- Argenton - located approximately 1.1 km to the north-east of the Project area.
- Teralba – located approximately 1.3 km to the south-west of the Project area.

In addition, there is a large portion of land to the east of the Project site, which has been remediated following the demolition of the former Pasminco lead smelter. This land, called the Bunderra Estate, is now zoned R3 – medium density residential under the Lake Macquarie Local Environmental Plan (2014). Once Bunderra Estate is fully developed, it will result in approximately 2,750 residents (based on 2.5 persons per dwelling) being the nearest receivers to the Project.

For the purposes of the SIA, proximate suburbs have been included within this initial profile due to the likelihood of potential social amenity impacts associated with the Project, such as noise and dust. Lake Macquarie LGA has been included as the local government region and it is within this LGA that the towns of Teralba, Boolaroo and Argenton are located.

At the 2016 Australian Census of Population and Housing, Lake Macquarie LGA had a population of 197,371 and Teralba had a population of 1,588. **Table 3.1** presents key demographic characteristics from the selected localities of direct relevance to the Project and compares these with NSW.

Table 3.1 Demographic Summary of Nearby Suburbs, Lake Macquarie LGA and NSW (ABS, 2016a-c)

	Teralba (SA1)	Lake Macquarie LGA	NSW
Economic Capital			
Top three industries of employment (%)	Health care and social assistance (18) Construction (13) Retail trade (10)	Health care and social assistance (17) Construction and Retail trade (10) Education and training (9)	Health care and social assistance (13) Retail trade (10) Construction and Education and training (8)
Largest occupation of employment (%)	Technicians and Trades Workers (16)	Professionals (20)	Professionals (24)
Unemployed (%)	10	7	6
Median weekly household income (\$)	1,133	1,296	1,214
Median weekly rent (\$)	255	320	270
Median monthly mortgage repayment (\$)	1,538	1,733	1,733
Human Capital			
Population	1,588	197,371	7,480,231
Median age (years)	46	42	38
Post-secondary education (%)	14	23	22
Family composition (families with children %/ families without children %)	42/34	42/40	46/37
Residential aged care places per 1,000 population aged 70 years and over.	-	75	83.4
Tenure – owned (%)	37	38	32
Tenure – mortgage (%)	35	36	32
Tenure – rented (%)	25	23	32
Physical Capital			
Occupied private dwellings (%)	94	91	90
Travel to work – one method (largest %)	Car, as driver (71)	Car, as driver (73)	Car, as driver (58)
Social Capital			
Marital status (married %)	38	50	49
Born overseas (%)	12	15	35
Language other than English spoken at home (%)	11	9	32
Aboriginal and Torres Strait Islander (%)	7	4	3
Volunteering (%)	16	18	18
Different address 5 years ago (%)	63	60	54

Source: ABS (2016)

As highlighted in **Table 3.1**, there are some notable differences in the demographic characteristics for Teralba compared to Lake Macquarie LGA and wider NSW. These differences include:

- The age profile of Teralba is older, with a median age of 46 years compared to 42 years for the Lake Macquarie LGA and 38 years for NSW;
- The Indigenous population is proportionally higher in Teralba than Lake Macquarie LGA and wider NSW;
- Unemployment is higher in Teralba (10%) compared to Lake Macquarie LGA (7%) and NSW (6%), with post-secondary education also being lower; and
- The cost of living in Teralba is lower than in the Lake Macquarie LGA and the NSW average, as evidenced through lower mortgage repayment and rental prices. Income was also lower in Teralba compared to both the broader LGA and NSW generally.
- Health care and social assistance was the top industry of employment across all localities.
- 60% of residents in Teralba had lived at a different address 5 years ago, with similar mobility evident in the Lake Macquarie LGA (60%) but greater than NSW (54%).
- Three industry sectors provide more than 10% of local employment – namely health/social services, construction and retail trade.
- The local workforce has a relatively low proportion of employees in managerial and professional positions and a larger proportion in trades, machinery operations and labouring jobs.

4.0 Assessment and Prediction of Social Impacts

This section provides an assessment of the perceived and predicted social impacts that may occur as a result of the project. The SIA has utilised data from a number of sources to develop a layered picture of the potential social impacts arising from the Project.

The section begins with a summary of the issues identified through engagement with the community; with each issue then further defined and assessed, utilising both social and environmental study inputs. Impact predictions are assessed according to a number of key impact characteristics, namely:

- **Extent** – geographical area affected by the impact (or the proportion of people or population groups affected)
- **Duration** – the timeframe over which the impact occurs
- **Severity** – scale or degree of change from the existing condition as a result of an impact
- **Sensitivity** – Susceptibility or vulnerability of people, receivers or receiving environments to adverse changes caused by the impact, including value or importance to the community.

The assessment is undertaken using a consequence and likelihood framework i.e. assessing the consequence of a given social impact factor (e.g. catastrophic, major, negligible) against the likelihood that it will occur (e.g. almost certain, likely, possible), to determine the overall risk assessment of the social impact as ‘low’, ‘moderate’ or ‘high’. Both positive and negative impacts are considered in this regard, with slight adjustments made to the approach to reflect positive impacts e.g. level of concern becomes level of interest, severity become scale of improvement or benefit, sensitivity becomes importance of the improvement or benefit and the equity of its distribution etc.

The inclusion of both technical ranking with community perceived ranking of impacts affords a true integration of expert and local knowledge in impact assessment and enables both types of risk to be addressed in the development of impact mitigation, amelioration and enhancement strategies. At the conclusion of each impact theme for each of the options, a table is presented which summarises the social impacts.

Impact themes have been separated into two broad categories: social amenity impacts and impacts relating to community sustainability, values and place. Social amenity impacts are those that relate primarily to the change in land use within the immediate locality and subsequent impacts, such as dust, noise, traffic etc. These impacts are largely localised, with nearby residents usually the most impacted.

Impacts to community sustainability, values and place include impacts felt more widely, such as those due to population movements or changes to the economy, as well as less tangible psychosocial aspects of change, such as the impacts of stress as a result of change, the value people place on their homes and surroundings, through to the sustainability of communities as a whole (refer to **Table 5.1**)

Impact themes considered as part of this assessment are outlined in **Table 4.1**.

Table 4.1 Assessed Impact Themes

Social Amenity	Community values, sense of place and sustainability
Traffic	Population change
Air quality (dust)	Impacts on housing availability and community infrastructure
Noise	Economic impacts
Visual impacts	Sense of community
Other environmental impacts, such as those relating to water, biodiversity and greenhouse gases	Recreational values

4.1 Perceived and technical impacts

As noted in **Section 2.4**, Project Information Sheets were provided to approximately 475 local residents and commercial stores in Boolaroo, Teralba and along the Concrush transport route. Four local residents responded to the Information Sheet, via email and telephone, to outline their concerns with the Project. Interviews were also undertaken with industry, education and community groups as part of the SIA including two local businesses and two schools in close proximity to the Project. These stakeholders previously had some form of contact with Concrush, with the schools noting the company was approachable and that they had received previous in-kind support. The local businesses also noted they had a good relationship with the company, with their business utilised by Concrush.

The local schools and businesses identified that the Project Information Sheet was a useful mechanism to provide information about the Project. The schools also noted, with limited businesses in the area, they would continue to work with the company regarding sponsorship and donations support.

Contact was also made with both the Deed Administrators and the developer for the Bunderra Estate. It should be noted that while there are no occupied dwellings on this site currently, the area is under construction. Neither party raised any issues or concerns with the project and advised that the information sheet would be forwarded to purchasers in the future.

Information collected through engagement with key stakeholders has also been supplemented with complaints data obtained from Concrush since the establishment of the facility in 2002; and a review of local issues, through an analysis of local media sources in the Lake Macquarie area. In this regard, no articles relating to operational issues or complaints were found.

Figure 4.1 outlines the key concerns raised during consultation. Issues relating to public safety were paramount and linked to traffic impacts along the transport route and road design. Issues of noise and air quality were also noted and to a lesser degree potential issues of water contamination.

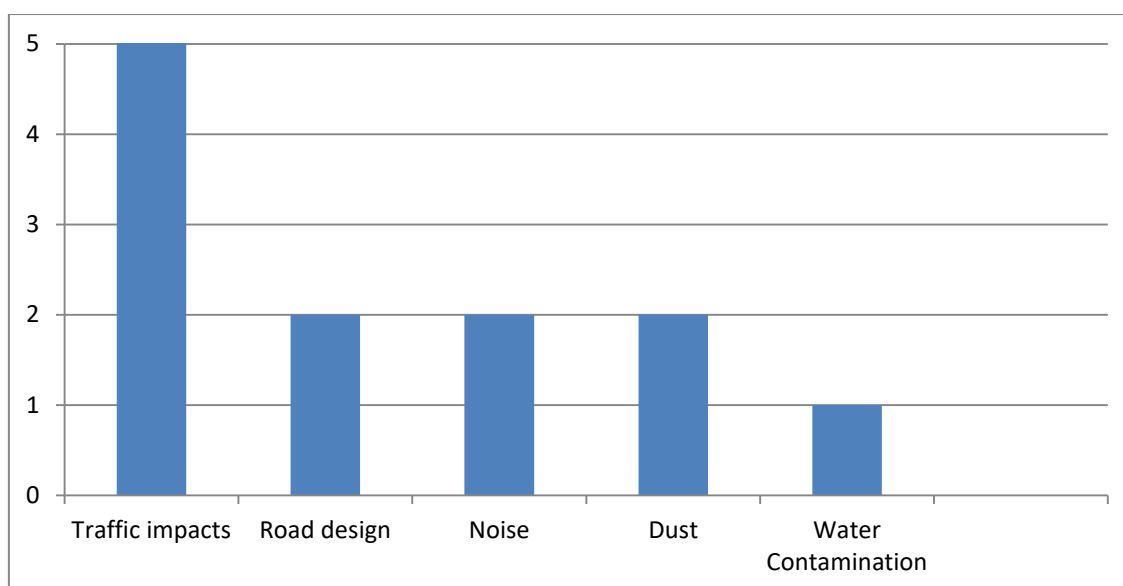


Figure 4.1 Perceived Community Project Concerns

Source: Umwelt, 2018 Note: multiple responses allowed.

4.1.1 Social amenity impacts

As discussed earlier in this Section, social amenity impacts are those that relate primarily to the change in land use within the immediate locality and subsequent impacts of dust, noise, traffic and land management. Concrush has been operating its facility since 2002 with no previous modifications made to the development consent during this time. The current project proposes to extend the operation (as outlined in **Section 1.1**) and consequently this section focuses on impacts of concern to the local community such as traffic impacts, air quality, noise, visual and water impacts.

4.1.1.1 Traffic

A number of perceived issues were identified by stakeholders that related to traffic and road safety, with the most common concern relating to the proposed project increase in vehicle movements. The speed of trucks, along the proposed transport route, and subsequent impacts on public safety were also raised.

In terms of the transport route, the local school identified a perceived impact in relation to the safety of school children when crossing roads, due to the proposed increase in truck movements. Both the nearby school and a resident/small business owner identified the intersection of York Street and Anzac Parade as requiring additional measures to slow traffic down. The school did however note that it is hard to tell if the cars and trucks are related to Concrush, as a scrap metal yard and the Lake Macquarie City Council recycling facility are located in the vicinity and also use the same transport route.

One stakeholder raised a specific concern in relation to the road design and its lack of suitability for the volume of traffic and size of heavy vehicles travelling on William and York Street. This stakeholder has previously approached council to upgrade the intersection.

As part of the EIS, a technical assessment of the impact of the project on traffic on the road network was undertaken. The assessment found that traffic impacts in relation to the construction phase of the project, are not expected. It is proposed that construction traffic will use the Toronto Road/York Street/Racecourse Road route to access the Project site. The proposed construction program will not require the mobilisation of a major construction workforce and work will be completed in stages over a total of approximately 12 weeks. Construction activities for the Project are proposed to be undertaken between 7am and 6pm Monday to Friday and 8am to 1pm on Saturdays.

The traffic assessment has indicated that in operation, the increase in the volume of cars and trucks accessing the Concrush site, as production increases over a period of several years up to the maximum rate of 250,000 tonnes of waste material recycled per annum will result in minimal changes to hourly traffic volumes within the local road network, and that all local streets and intersections will remain at acceptable levels of service including during peak periods.

While the perceived technical risk has been ranked as low, given the outcomes of the traffic assessment, traffic and safety was identified as the highest perceived community risk in relation to the project, and consequently has been ranked moderate.

Table 4.2 Social Amenity Impacts - Traffic

SIA Matter	Project Aspect	Social Impact	Affected parties	Duration	What is the extent of impact	Perceived Social Impact/ Sensitivity	Social Impact Ranking
People – Access	Increased traffic	Surroundings - Impact on public safety	Road users Pedestrians Local residents' local businesses Teralba Public School	Long-term	Suburb of Teralba and through road users	MODERATE	LOW
People – Built environment	Road design	Surroundings and health and wellbeing – Public safety and physical health	Road users Pedestrians Local residents' local businesses Teralba Public School	Long-term	Suburb of Teralba and through road users	MODERATE	LOW

4.1.1.2 Air quality

A small number of community members identified cumulative air quality impacts (i.e. dust) affecting their surroundings and general amenity as an issue of concern regarding the operation of Concrush in the local area. Dust was also the key issue raised in a complaint to the EPA in 2017.

Those community members that identified air quality as a potential impact were concerned that the increase in capacity would generate more dust and that existing mitigation measures (operation of a water cart) were not enough to manage the increase in dust.

Outcomes of the air quality assessment concluded that, with the adoption of a range of management measures to reduce the potential for dust to leave the Project site, all relevant air quality criteria will be met during both construction and operation phases of the Project. Consequently, the Project is not likely to cause adverse air quality impacts at any off-site sensitive receptor locations.

The impact of air quality on social amenity has been ranked as a low impact; however, a moderate impact ranking has been allocated based on stakeholder feedback on this issue.

Table 4.3 Social Amenity Impacts – Air Quality

SIA Matter	Project Aspect	Social Impact	Affected parties	Duration	What is the extent of impact	Perceived Social Impact / Sensitivity	Technical Risk
Natural environment – Air	Impact of construction and operations on air quality – in particular dust emissions	Surroundings – access to and use of the natural and built environment, and its amenity Health and wellbeing – including physical and mental health	Local Landholders and residents in the local suburb of Teralba and Bunderra Estate (in development)	Construction – Short-term Operations - Long-term	Surrounding residents (200-600 m from the site)	MODERATE	LOW

4.1.1.3 Noise

While noise was identified as a perceived impact of the Project, again the frequency of response was low (being noted by only two stakeholders). Perceived impacts with regard to noise related to general operational noise. One stakeholder noted that the noise from the big drums used for crushing are a source of annoyance, as the stones fall into the drum.

A detailed noise impact assessment was carried out to determine the potential for construction, operation and road noise impacts to the local community as a result of the Project. The noise modelling identified that increased traffic on the local roads, to and from the Project site, would not result in noise levels above the appropriate road noise criteria. Noise from the proposed construction activities could also not exceed relevant construction noise criteria.

In operation, at the maximum production rate, the Project would meet the relevant noise criteria for the majority of residences in the local community. The noise modelling indicated that under certain meteorological conditions there was the potential for minor exceedances of the relevant noise criteria for a few residents in the vicinity of the Project site. In general, the exceedance would be approximately 2dB for some properties in the Bunderra Estate during the day and 5dB during night time operations. Two properties on Racecourse Road have been identified with exceedances of 8dB at night. Operations at night are infrequent, based on previous experience, however should night operations occur, exceedances may be experienced at these properties.

Reasonable and feasible noise mitigation measures have been incorporated into the project in order to minimise environmental noise, however given there is still expected to be exceedances at 2 neighbouring properties during night operations that may occur, the technical risk for these two properties has been assessed as high and as moderate for the Bunderra Estate. The perceived community impact relating to noise has been assessed as moderate.

Table 4.4 Social Amenity Impacts - Noise

SIA Matter	Project Aspect	Social Impact	Affected parties	Duration	What is the extent of impact	Perceived Community Impact	Technical Risk
People – Amenity	Noise (daytime)	Way of life – how people live and interact with one another on a daily basis	Bunderra Estate	Long-term	Bunderra Estate	MODERATE	MODERATE
People – Amenity	Noise (night)	Way of life – how people live and interact with one another on a daily basis	Racecourse Road	Long-term	2 properties	MODERATE	HIGH

4.1.1.4 Visual

Visual impacts were not raised by community stakeholders in relation to the project and therefore, the perceived community risk to visual amenity has been ranked as low.

The Project site is bound to the west by the Main North Rail Line and to the east by Racecourse Road and Cockle Creek. A car wrecker's yard is located immediately to the north of the Project site with vacant land immediately to the south of the existing site with the scrape metal yard located further to the south. The Project site and immediately surrounding areas are distinctly industrial in character, reflecting the zoning and existing land use of the area.

Views to the Project site are available from the rail corridor for passengers on trains travelling north or south, as well as vehicles on Racecourse Road. Some intermittent glimpses of the site are also available for vehicles travelling on TC Frith Avenue to the east of the site. There are also some views of the site from the highest part of the Bunderra estate.

A visual assessment was conducted for the Project, which has indicated that the main change to the visual environment is the increased size of the Project site (from 2.4 to 4.8 ha). The activities, plant and equipment, stockpiles and vehicles present at the existing site would generally remain the same but would be present over a larger area. The increase in the size of the site would also result in a larger stockpile area and increased vehicular activity on-site.

A landscaped 2-m high earth bund will be established along the eastern boundary (southern half) of the site to complement the existing landscaped earth bund present along the northern half of the eastern site boundary.

Consequently, the technical risk in terms of the visual impact of the Project has been rated as low.

Table 4.5 Social Amenity Impacts - Visual

SIA Matter	Project Aspect	Social Impact	Affected parties	Duration	What is the extent of impact	Perceived Community Impact	Technical Risk
People – Amenity	Visual	Surroundings – the environments aesthetic value	Local Businesses Road Users	Long-term	Two businesses and road users	LOW	LOW

4.1.1.5 Other environmental aspects – water

A range of other environmental aspects are considered within the broader EIS. These include potential impacts to surface and groundwater, biodiversity and greenhouse gases and climate change. Issues relating specifically to water contamination were raised during consultation.

The community has identified some interest in water contamination and the perceived impact that the Project may have on nearby water sources e.g. Cockle Creek. One stakeholder raised a concern around water quality, questioning whether dams were present on the site to contain water and prevent run-off. The project design incorporates sediment basins, an artificial wetland and water storage tanks to capture and reuse as much water as possible on site.

Technical assessments of surface and groundwater systems were conducted as part of the EIS with the report indicating that water resources can be appropriately managed for the Project. Consequently, water has been ranked as both a low perceived community issue and a low technical social risk.

Table 4.6 Social Amenity Impacts - Water

SIA Matter	Project Aspect	Social Impact	Affected parties	Duration	What is the extent of impact	Perceived Community Impact	Technical Risk
Natural environment – Water	Water contamination	Surrounds – access to and use of ecosystems and services	Local residents Recreational users of Cockle Creek	Long-term	Surrounding residents and users of Cockle Creek	LOW	LOW

4.1.2 Community sustainability, values and place impacts

As discussed in **Section 4.2**, community sustainability, values and place include impacts such as those due to population movements or changes to the economy, as well as less tangible psychosocial aspects of change, such as the impacts of stress, how people value their homes and surroundings, and the sustainability of the community as a whole. The following sections address these potential social impact issues.

Changes to population are a fundamental impact within SIA, given that a population and characteristics underpin the size, diversity and activities of a community. Population change is usually described as a first order social impact, which has the potential to create a number of second order social impacts such as impacts on community infrastructure and services, change in sense of community and social cohesion.

It is generally regarded in the SIA literature, that a project can influence population change by impacts emerging from two main factors:

- An influx of workers (construction related or operational)
- Acquisition of residential land in proximity to the operations.

The Concrush facility currently employs 5 full time staff and 2 casual staff. Employees live locally, and local contractors provide equipment and services to the facility.

The proposed Project will result in an increase of 2 full time workers in the operational phase, at full capacity, resulting in a total of 9 full time workers. This is not considered a significant increase in the workforce; and consequently, population change associated with the project is ranked as low.

Impacts associated with changes in population also include impacts to housing availability and infrastructure capacity, economic growth and, where significant, changes to sense of community and community sustainability. Once again given that the Project will result in no significant change in workforce, such impacts are also considered low.

Table 4.7 Community Sustainability, Values and Place Impacts

SIA Matter	Project Aspect	Social Impact	Affected parties	Duration	What is the extent of impact	Perceived Community Impact	Technical Risk
People - Community	Population change	Community composition	Local community	Long-term	LGA	LOW	LOW
People - Community	Impacts on housing availability and community infrastructure	Community composition	Local community	Long-term	LGA	LOW	LOW
People - Community	Sense of Community	Community and sense of place	Local community	Long-term	LGA	LOW	LOW
People - Community	Recreational and Environmental Values	Community character and how it functions	Local community	Long-term	LGA	MODERATE	LOW

4.1.3 Economic impacts

The project will result in a number of positive impacts to the locality and the region and only a small contribution to the broader NSW economy.

Economic impacts relating to the project were raised by a number of stakeholders but largely related to the impact of local contribution and investment by the company.

Community contributions were also identified through local media analysis, where Concrush was recognised for their local community investment in 2014, as supporters of the Windale Men's Shed and Community Group Incorporated, and for their contribution to the Commemorative Garden in recognition of past deceased members. Additionally, Concrush were also listed as a sponsor in the Black Diamond AFL articles. The assessment determined that the net present value of the project is assessed at \$36 million with a benefit to cost ratio of 1.82. The project is expected to directly employ an additional 2 people from the locality. The value of output from the facility represented less than 0.005% of the Gross Regional Product (GRP) for the region in 2016. Wages and salaries paid by the project provide a very similar share of salaries in the region.

It was suggested that the operation would continue to contribute to the local and regional economies through employment, capital expenditure (during the construction phase) and social investment (i.e. funding for community groups, programs and/or infrastructure).

Local and State government will receive economic benefits, including revenue from taxes and levies. In addition, the Commonwealth government will also receive revenue from the Project, through means including company tax, excise on imported equipment and goods, fuel excise and other taxes such as goods and services tax and income tax.

Furthermore, the economic assessment also noted that the expansion of the plant is consistent with the NSW Government Waste Avoidance and Resource Recovery Strategy which aims to make NSW the number one in Australia for waste management.

Therefore the Project is unlikely to cause negative effects on the local economy. Expenditure from Concrush and its employees will benefit the local and regional economies through direct spending of wages and employing the services of contractors, transport operators and other associated service providers. In addition, the Project will support local industry and employment by providing an opportunity to recycle and reuse building and construction waste. Consequently, both the perceived community impact and technical risks have been ranked as a low (positive) impact.

Table 4.8 Economic Impacts

SIA Matter	Project Aspect	Social Impact	Affected parties	Duration	What is the extent of impact	Perceived Community Impact	Technical Risk
People - Community	Economic impacts	Way of life – how people work, live, play and interact	Local community and City residents	Long-term	Teralba and Lake Macquarie LGA	LOW (Positive)	LOW (Positive)

4.2 Summary of perceived community impacts and technical risk

The following table provides a summary of the perceived and predicted social impacts relating to the Project. As outlined, all social impacts that may relate to the proposed changes to Concrush are considered low, with the impact of noise on social amenity considered moderate to the receivers/landholders identified; and moderate (positive) impacts on the local, regional and NSW economy also predicted.

Table 4.9 Summary of Perceived Community Impacts and Technical Risk

SIA Matter	Project Aspect	Social Impact	Affected parties	Duration	What is the extent of impact	Perceived Social Impact/Sensitivity	Social Impact Ranking
People – Access	Increased traffic	Surroundings - Impact on public safety	Road users Pedestrians Local residents' local businesses Teralba Public School	Long-term	Suburb of Teralba and through road users	MODERATE	LOW
People – Built environment	Road design	Surroundings and health and wellbeing – Public safety and physical health	Road users Pedestrians Local residents' local businesses Teralba Public School	Long-term	Suburb of Teralba and through road users	MODERATE	LOW
Natural environment – Air	Impact of construction and operations on air quality – in particular dust emissions	Surroundings – access to and use of the natural and built environment, and its amenity Health and wellbeing – including physical and mental health	Local Landholders and residents in the local suburb of Teralba and Bunderra Estate (in development)	Construction – Short-term Operations - Long-term	Surrounding residents (200-600 m from the site)	MODERATE	LOW
People - Amenity	Noise (daytime)	Way of life – how people live and interact with one another on a daily basis	Bunderra Estate	Long-term	Bunderra Estate	MODERATE	MODERATE
People - Amenity	Noise (night)	Way of life – how people live and interact with one another on a daily basis	Racecourse Road	Long-term	2 properties	MODERATE	HIGH
People – Amenity	Visual	Surroundings – the environments aesthetic value	Local Businesses Local Landholders Road Users	Long-term	Two businesses, road users and Bunderra Estate	LOW	LOW
Natural environment – Water	Water contamination	Surrounds – access to and use of ecosystems and services	Local residents Recreational users of Cockle Creek	Long-term	Surrounding residents and users of Cockle Creek	LOW	LOW
People - Community	Population change	Community composition	Local community	Long-term	LGA	LOW	LOW

SIA Matter	Project Aspect	Social Impact	Affected parties	Duration	What is the extent of impact	Perceived Social Impact/Sensitivity	Social Impact Ranking
People - Community	Impacts on housing availability and community infrastructure	Community composition	Local community	Long-term	LGA	LOW	LOW
People - Community	Sense of Community	Community and sense of place	Local community	Long-term	LGA	LOW	LOW
People - Community	Recreational and Environmental Values	Community character and how it functions	Local community	Long-term	LGA	MODERATE	LOW
People - Community	Economic impacts	Way of life – how people work, live, play and interact	Local community and City residents	Long-term	Teralba and Lake Macquarie LGA	LOW (Positive)	LOW (Positive)

5.0 Social Impact Monitoring and Management

5.1 Management and mitigation

This section provides a summary of potential strategies that may be implemented in response to the predicted impacts outlined in **Section 4.0** - namely those ranked as moderate and high.

Table 5.1 summarises the key strategies that could potentially be implemented to either address a potential negative impact or enhance the positive impacts associated with the Project.

Table 5.1 Strategies to Address Key Impacts Associated with the Project

Impact/Opportunity Area	Strategies
Noise and air quality – impacts on way of life	There are a small number of nearby neighbours that Concrush should work with to monitor the impacts of noise on social amenity
Sense of Community	It is recommended that Concrush <ul style="list-style-type: none"> Continue to maximise local and regional spend through support for local groups and organisations
Traffic – impacts on social amenity and safety	Traffic was a key issue raised by the community through the SIA. It is recommended that where possible, Concrush implement some proactive tools to encourage their drivers and contractors to adhere to safe driving practices at all times. Mechanisms may include: <ul style="list-style-type: none"> Tool box talks with drivers to reinforce positive driver behaviours and messaging Installation of strategic signage at key locations on the site to remind drivers to 'drive safely' and 'remember our local neighbours'.

5.2 Monitoring and evaluation

A key aspect of any social impact assessment is the development of a framework to monitor a project's impact over time – often referred to as a social impact management plan. Concrush will collect social data to monitor commitments made in the social impact assessment namely:

- Key areas of predicted Project impact, including perceived and experienced social impacts, through consultation with neighbouring and other nearby landowners, to determine if experienced impacts are in line with predicted impacts (as outlined in **Section 5.1**).
- Evaluation of community contributions to ensure benefits to local stakeholders e.g. Teralba Public School, local community organisations.

6.0 References

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