

17 Social

17.1 Introduction

This chapter summarises the potential social impacts resulting from the construction and operation of the proposal. A Social Impact Assessment (SIA) has been prepared and is included as **Technical report M**. The SIA has been produced referring to the Department's Social Impact Assessment Guideline¹.

The Social Impact Assessment Guideline defines social impact as a consequence experienced by people due to changes associated with the proposal.

Those impacts may include changes to people's way of life, community character, access to infrastructure and facilities, culture, health and well-being, surroundings, personal and property rights, decision-making systems and fears and aspirations, among others.

Social impacts can be experienced differently by different people and can also include perceptions of impact.

The assessment of social impacts draws on the assessment of other impacts in the EIS, such as noise, visual, air quality and transport. While these other assessments typically evaluate potential impact against recognised standards and criteria, SIA tries to understand how these impacts are experienced and valued by people, including their perceptions of impact.

Drawing on the Social Impact Assessment Guideline, the methodology for undertaking the SIA included the following steps:

- Definition of the area of social influence for the proposal. This was informed by the scale and characteristics of the proposal, its location and relationship to nearby land uses, built and natural features and statistical boundaries.
- Review of existing information to establish a social baseline:
 - Relevant policy, legislation and zoning
 - Population and demographic data
 - Local businesses, community facilities and residential communities
 - Community consultation outputs.
- Assessing the potential social impacts and their significance, having regard to the scale, extent, duration, severity, likelihood and level of risk or benefit associated with each impact. The significance presented in **Section 17.3** is before mitigation measures are applied.

¹ Department of Planning, Industry and Environment (DPIE), *Social impact assessment guideline for State significant mining, petroleum production and extractive industry development* (September 2017)

- Deciding on mitigation and management actions to address potential impacts, and therefore assessing the residual impact following application of mitigation measures presented in **Section 17.5**.

Social impacts have been defined to include both the potential positive and negative impacts associated with the proposal. The methods adopted are described in detail in section 2 of the SIA.

17.2 Existing environment

A social baseline has been developed to get an understanding of the existing social conditions at the proposal site and in the surrounding area and to understand the potential social impacts of the proposal. A local study area is made up of areas mostly within a 3km radius of the site, as these areas have the potential to experience the most significant and direct change to conditions as a result of the proposal. To account for potential flow-on impacts in the surrounding area, the following has been considered:

- The wider Blacktown and Fairfield Local Government Areas (LGA), noting the proposal is located on the border between the two
- NSW State
- National context.

This section summarises the social baseline for the local study area and wider impact areas. This is described in detail in section 3 of the SIA.

17.2.1 Policy context

The proposal is within the Western Sydney Parklands (WSP), with the State Environmental Planning Policy (SEPP) (Western Sydney Parklands) 2009 being the key planning policy relevant to the proposal supported by the WSP Plan of Management 2030. Collectively, these establish the framework for the future land use on the site and those areas surrounding the site, also within the WSP.

The proposal is consistent with the WSP SEPP and Plan of Management, including the recycling and renewable energy objectives for Precinct 6 of the Plan of Management, within which the site is located.

The Greater Sydney Regional Plan and the Central City District Plan create the broader context, including a desire to increase infrastructure to support economic and population growth. In addition, the Blacktown City Council Local Strategic Planning Statement and Community Strategic Plan, alongside the neighbouring Fairfield City Plan, provide an overview of the wider community aspirations and needs as an indicator of the community values within the local study area (summarised in section 3.1 of the SIA).

17.2.2 Community profile

This section presents a demographic analysis of the local study area comprised of ABS Census Statistical Area 2 (SA2) level areas of Prospect Reservoir and Horsley Park – Kemps Creek SA2s.² The community profile is described in detail in section 3.2 of the SIA.

17.2.2.1 Population and households

The population in the local study area was 4,465 in 2016. However, most of this is within the southern parts of the Horsley Park – Kemps Creek SA2, beyond the 3km radius of the local study area. The population within the Prospect Reservoir SA2 area, where the proposal site is located, is minimal, and the nearest residential community is about 1km away, at Horsley Park. While growth is planned in the wider region, residential development is not permitted in the WSP or the Western Sydney Employment Area, to the west of the proposal site. Therefore, population growth in the local study area is expected to be low.

17.2.2.2 Vulnerable communities

Vulnerable communities are a subgroup of the overall population who are at a higher risk of experiencing problems. The Socio-Economic Indexes for Areas (SEIFA) score for the local study area was 7 in 2016, indicating a relatively advantaged area, particularly when compared to the surrounding SA2s. However, the average household size in the local study area was 3.4 persons in 2016, larger than the average household size in the wider LGAs, which indicates many families living in the local study area. Families may be more vulnerable to certain social impacts such as amenity and transport.

About 7% of the local study area reported having a need for help with core activities in 2016, similar to that reported for the wider region and State. Moreover, the age profile of the local study area indicates a low proportion of young and elderly people compared to LGA and State averages.

17.2.2.3 Resident employment and income

The median weekly household income in the local study area was \$1,976 in 2016, which was higher than the median for Blacktown and Fairfield LGAs and the wider State. In the local study area, the median weekly rent is about 20% of the median weekly household income, below the 30% level commonly associated with housing stress.

² These are the two SA2 areas that intersect with the local study area, 3km from the proposal site. Note that the southern parts of Horsley Park – Kemps Creek, which are not within a 3km radius of the site, are heavily residential, and the social baseline is considered in that context.

Of the working-age resident population in the local study area, 56% were employed in 2016, mostly within construction, retail trade, and transport, postal and warehousing industries. The unemployment rate in the local study area was 2.3%, significantly lower than for Blacktown and Fairfield LGAs.

17.2.2.4 Business and employment

The local study area is a significant employment area for the region, and wider State. In 2016 it created 21,043 jobs, and the Prospect Reservoir SA2 alone accounted for about 17% of all jobs in Blacktown LGA. In June 2019, there were 1,525 businesses in the local study area³. Most of these were in the construction (21%), rental, hiring and real estate services (18%), and wholesale trade (11%) industries. There are several business parks within the local study area, associated with the wider Western Sydney Employment Area, an identified area for industrial development for transport, logistics, warehousing and office space.

17.2.2.5 Travel behaviour

The local study area has a high reliance on private vehicle travel. Almost 75% of residents travel by car to work, while between 85% and 90% of people commute into the area by car. A large proportion of residents also work in the area, with a self-containment rate of 25%. The high ownership and use of motor vehicles reflect the limited public transport in the area, with only Blacktown, Seven Hills and Mount Druitt supported by train services.

17.2.3 Community and stakeholder values

The approach to community and stakeholder engagement for the proposal is detailed in the Community and Stakeholder Engagement Report included in **Appendix F**. Key issues raised by engagement activities which are of relevance to the SIA include:

- The safety of locating the facility in proximity to residential areas
- The potential impact of emissions (gasses and particulates) on people's health
- Anticipated traffic issues
- Potential negative impacts on recycling habits
- Perceived negative impacts on property values, potential increase in council rates
- Environmental impacts, including on plants, water and air quality

³ Australian Bureau of Statistics, *Counts of Australian Businesses, including Entries and Exits, June 2015 to June 2019* (2020).

- The (in)efficiency of the facility and its ability to adapt to technological change
- The facility not achieving compliance with international and local regulations or reflect best practice
- The operation would lack the appropriate monitoring, reporting and enforcement of safety and environmental standards.

The community also recognises the positive impacts that an EfW facility would have, regarding it as a beneficial use of waste, valuable source of cheaper energy, providing local jobs and being better for the environment than landfill.

A review of the Community Strategic Plan for Blacktown⁴ and the Fairfield City Plan⁵ highlights key values for the wider community. These include:

- Sustainable growth of the local economy and employment
- Diverse, safe and accessible communities
- Clean, sustainable and healthy environment
- Community cohesion, health and wellbeing and lifelong learning
- Active engagement in planning and decision-making.

A detailed summary of community values is available in section 3.3 of the SIA.

17.2.4 Land use and social infrastructure

The proposal site is bounded by the Westlink M7 Motorway (the M7) to the west, with the Eastern Creek industrial area located farther west. The local study area is characterised by industrial, commercial and transport land uses. The site sits within the WSP, an urban park system, and is near Prospect Reservoir east of the site, a designated nature reserve and conservation area, which plays a water storage and supply infrastructure role.

The existing site contains former industrial uses, with buildings associated with a disused poultry facility, which will be cleared from the site before starting to build. It falls within the Wallgrove Precinct in the WSP Plan of Management 2030, which is recognised

‘to be an evolving precinct that...has potential for the development of renewable energy and recycling opportunities, agriculture, unstructured recreation and sport uses, and a potential WSPT Business Hub development.’

A large proportion of the wider local study area also falls within the WSP, including land to the east within Eastern Creek Motor Sports Precinct 5.

⁴ Blacktown City Council, *Our Blacktown 2036, Our vision, Our plan* (2017). Community Strategic Plan, viewed 27 March 2020.

⁵ Fairfield City Council, *Fairfield City Plan* (2016). Viewed May 2020.

Prospect Reservoir and Nature Reserve Precinct 8 is located farther east, which supports protection of the Prospect Reservoir. It is a designated nature reserve and conservation area and main water storage and supply infrastructure. Within the western part of the local study area, a significant portion is covered by the Western Sydney Employment Area, formed to supply employment land close to major road transport and create jobs for Western Sydney.

The nearest residential area is around 1km to the south of the site in Horsley Park, with the Minchinbury residential area located around 3km to the north-west. Horsley Park Public School is over 2km south of the site, and a childcare centre is within the Eastern Creek industrial area about 1km to the west of the site.

A detailed summary of the land use context is available in section 3.4 of the SIA.

17.3 Assessment

This section identifies and evaluates the potential social impacts of the proposal, as detailed in section 5 of the SIA. It covers impacts for the local study area, drawing on assessment of the impacts at the regional, State and national levels as appropriate and relevant. Cumulative impacts associated with the proposal are addressed in **Chapter 23 Cumulative impacts**.

Direct property and access impacts are not considered within the assessment as no property acquisitions are needed as part of the proposal. Works to upgrade access to the site are outside of the scope of the proposal but are outlined in **Chapter 22 Related development**.

The social impacts are assessed using an impact evaluation matrix shown in **Table 17.1** below. This is adapted from the Department's Social Impact Assessment Guideline and assesses the likelihood of the impact against the potential consequence to determine the overall impact.

Table 17.1: Impact evaluation matrix adopted for the proposal

		Consequence				
		Minimal	Minor	Moderate	Major	Catastrophic/ transformational
Likelihood	Almost certain	Medium	Medium	High	Very high	Very High
	Likely	Low	Medium	Medium	High	Very High
	Possible	Low	Low	Medium	High	High
	Unlikely	Very low	Low	Low	Medium	High
	Rare	Very low	Very low	Low	Medium	Medium

17.3.1 Construction impacts

This section summarises the potential social impacts associated with construction of the proposal.

17.3.1.1 Way of life

Liveability

Impacts to liveability are expected to be unlikely during the construction phase, and minimal in consequence where experienced. Amenity impacts from construction of the proposal (such as noise or air quality impacts) may affect some residential receivers closest to the proposal site. This may result in these residents changing their behaviour to avoid impacts such as keeping windows and doors shut. These impacts are considered unlikely as the nearest residential community is at least one kilometre away from the proposed. Any impacts would be experienced as a slight nuisance and inconvenience, and would be temporary, therefore would have only a low negative impact to their way of life.

Findings from the engagement activities indicated the community's concerns regarding the facility's implications on liveability and way of life generally relate to the operation of the facility, rather than construction. The operation impacts are assessed in **Section 17.3.1.1**.

Employment

It is estimated that the proposal will create 900 direct construction jobs over the 3-year construction period and in addition between 700–1200 indirect construction jobs as a result of the demand for materials and products to support construction. The construction of the proposal will require trades and construction personnel, subcontractors and engineers, functional and administrative staff. These impacts are assessed to be likely, moderate in consequence, resulting in an overall high positive social impact regarding employment and business opportunities.

Traffic and congestion

As summarised in **Chapter 15 Traffic and transport**, during construction there will be an increase in the number of vehicles using local roads from construction worker and construction vehicle movements. If not managed appropriately, this could lead to an increase in congestion on local roads, which could impact on people's daily routines and/or business operations and cause associated stress and anxiety. However, a Construction Traffic Management Plan (Appendix A of **Technical report K Traffic and Transport**) has been prepared and will be updated by the appointed contractor to make sure impacts on the road network are minimised and managed.

Workers and residents closest to the site may experience a reduction in amenity, such as increased traffic noise and emissions – this is unlikely to be significant enough to cause any stress and anxiety. The impacts will be likely, and minimal in consequence, resulting in an overall moderate negative social impact.

Mode of travel

Given the localised nature of the proposal, and the small scale of uplift in vehicle traffic, and the proposed management of impacts, the proposal is not expected to have any impact on the travel behaviours regarding mode of travel. This impact is assessed to be rare, and minimal in consequence, resulting in an overall low negative social impact.

17.3.1.2 Community

Demographic composition and vulnerable groups

The construction of the proposal would not significantly impact on the socio-demographic profile of the existing community (gender, age, ethnicity).

The baseline data indicates the study area has a large existing working age population and a significant proportion of the population are employed in the construction industry. The construction of the proposal is unlikely to require a large influx of a construction workforce into the study area and would not result in a subsequent shift in the demographic composition of the community.

Business community

There are no direct significant negative impacts anticipated associated with the proposal upon local businesses, rather there are a number of potential positive impacts associated with construction activities.

Construction of the proposal may result in new business and employment opportunities within the supply chain. The range of construction, wholesale and logistics businesses in the local study area do not typically rely on passing trade, so no impacts to footfall and/or turnover are expected as a result of the proposal.

Access to the local businesses is generally via the M7, so the proposal is also not expected to impact on access during construction. Businesses may experience possible amenity impacts from construction activities as described in

Section 17.3.1.2 above. This impact is assessed to be possible, and minimal in consequence, resulting in an overall low negative social impact.

17.3.1.3 Access to and use of infrastructure, services and facilities

Social infrastructure and facilities

The proposal will not directly impact on any of the identified social infrastructure within the local study area. These facilities may experience amenity impacts from construction, as summarised in the amenity section. This impact is assessed to be rare, and minimal in consequence, resulting in an overall low negative social impact.

Utilities infrastructure

The proposal will include relocation and protection of utilities which run through the site, which may result in a temporary disruption to utilities, which could have social impacts on household and business routines and service provision. Any disruptions to services due to utility adjustments would be discussed with key stakeholders and communities would be notified of outages in advance of works. This impact is assessed to be possible, and minor in consequence, resulting in an overall moderate negative social impact.

17.3.1.4 Health and wellbeing

Air quality impacts

Certain construction activities have the potential to generate quantities of dust and exhaust emissions which could cause nuisance to nearby businesses. Construction activities would be temporary, and **Technical report A Air Quality and Odour Assessment Report** predicts no significant or prolonged effect as a result of construction activities, and as such, does not quantitatively model potential impacts. As a result, the social impact is assessed to be unlikely, and minimal in consequence, resulting in an overall low negative social impact.

Findings from consultation activities indicated the community's concerns regarding the facility's implications on health and wellbeing are generally related to the operation of the facility, rather than construction. These impacts are discussed in **Section 17.3.2**.

17.3.1.5 Surroundings

Visual impacts

Landscape character and visual impacts are assessed in **Chapter 16 Landscape and visual** and **Technical report L Landscape and Visual Impact Assessment**. The construction of the proposal would result in some social impacts associated with temporary visual impacts within the local study area.

The construction would require the removal of vegetation, set-up of site compounds and laydown areas and building of the facility. However, considering the industrial character of the site and surrounding area, these impacts would be localised.

While mostly seen from the neighbouring industrial areas, as construction progresses, the built form of the facility and associated construction equipment needed will gradually be more prominent and be seen from surrounding Horsley Park rural residential area and Moonrise Lookout, a lookout from a recreation trail from within the WSP. This could prompt a sense of loss in the community of valued views and character. However, these are in limited areas, and the visual impact of construction is considered temporary, with plant and equipment being removed after completion. This impact is therefore assessed to be possible, and minor in consequence, resulting in an overall moderate negative social impact.

Noise impacts

The Noise and Vibration Impact Assessment (**Technical report I**) as summarised in **Chapter 13 Noise and vibration**, indicates that noise associated with construction vehicles travelling to and from the site would have an insignificant short-term effect on the ambient noise environment. It also predicts construction noise levels at nearby industrial, commercial and residential receivers to the south of the proposal site that would exceed the relevant noise management levels. While this could potentially cause annoyance – for example, causing residents to keep windows and doors closed to reduce internal noise while particularly noisy works are taking place, – it would not negatively impact on people's health and wellbeing. The assumptions are based on conservative predictions, and the magnitude of construction noise impacts would depend on a range of matters such as the intensity and location of activities, the type of equipment used, and background noise during construction. The predicted noise levels would only be experienced while the works are occurring and are short-term and temporary in nature. A Construction Noise and Vibration Management Plan (CNVMP) will be prepared to minimise construction noise impacts.

This impact is assessed to be possible, and minor in consequence, resulting in an overall moderate negative social impact.

Land use and zoning

The construction of the proposal would have no negative impacts in terms of land use and zoning. The proposal aligns with the industrial nature of the site, and surrounding areas. There may be increased business opportunities as a result of construction, particularly within the supply chain, noting the large proportion of construction businesses in the local study area. This impact is assessed to be likely, and minor in consequence, resulting in an overall high positive social impact.

The proposal is not expected to impact on future development activities in the local study area. However, there may be some impacts associated with overlap of construction activities, including availability of construction workers. This impact is assessed to be possible, and minor in consequence, resulting in an overall moderate negative social impact.

17.3.1.6 Personal and property rights

No acquisition of property is required for the proposal and impacts to property rights are not foreseen. However, some people may perceive that living near the construction of an EfW facility would create a less desirable living environment. Therefore, there is a possible likelihood and minor consequence of perceived social impact associated with personal and property rights for some members of the local study area, resulting in a moderate impact.

17.3.1.7 Decision-making systems

The proposal is not anticipated to impact on existing decision-making systems in place. Through the engagement approach, the applicant seeks to achieve a two-way discussion, encourage input into the EIS process and develop a long-term relationship with the community.

Feedback obtained from the engagement to date indicates a level of doubt in the planning and decision-making process for the proposal. Therefore, there is a possible perceived negative impact on decision making.

17.3.1.8 Fears and aspirations

While building of the facility could lead to a sense of loss of community values, particularly those associated with key views and the broader rural character of the local study area, the proposal does not represent a significant change from the current character of the proposal site. So, the immediate loss is expected to be minimal. In addition, there may be some minor impacts associated with increased noise, traffic and dust, and the anticipation of negative impacts (known, unknown or perceived), which could cause stress in local residents.

However, these are expected to be temporary and localised in nature and are anticipated to be managed through the WSERRC communications and engagement approach documented in the Community and Stakeholder Engagement Report in **Appendix F**.

This impact is assessed to be possible, and minor in consequence, resulting in an overall moderate negative social impact.

17.3.1.9 Summary of construction impacts

Table 17.2 below summarises social impacts from the construction of the proposal. Any negative construction impacts will be medium to low and temporary. The proposal would have a beneficial impact of creating employment and business opportunities along the supply chain during construction.

Table 17.2: Summary of construction impacts

Impact	Extent of impact	Likelihood	Impact	
			Consequence	Impact Rating
Negative impacts				
Potential impact on livability due to construction dust, noise and vibration	Local study area and regional	Unlikely	Minimal	Low
Potential impact on way of life due to increase in traffic and confestion	Residents and communities within the local study area, commuters from the regional area	Likely	Minimal	Moderate
Potential impact on way of life related to changes to mode of travel	Residential and communities within the local study area, commuters from the regional area	Rate	Minimal	Low
Potential impact on demographic composition and vulnerable groups	Local study area and regional	Unlikely	Minimal	Low
Potential social impact to local businesses and business environment associated with amenity and traffic impacts	Local study area	Possible	Minimal	Low
Potential social impact due to changes to access and use of social infrastructure and community facilities	Residents and communities within the local study area	Rare	Minimal	Low
Potential social impact due to changes to utilities and infrastructure and provision	Local study area	Possible	Minor	Moderate
Potential social impact due to increased air emissions	Local study area	Unlikely	Minimal	Low
Potential social impact due to landscape and visual changes	Local study area	Possible	Minor	Moderate
Potential social impact due to increased noise emissions	Local study area	Possible	Minor	Moderate

Impact	Extent of impact	Likelihood	Impact	
			Consequence	Impact Rating
Potential impact to current land uses and operations	Local study area	Unlikely	Minimal	Low
Potential social impact related to personal and property rights	Local study area	Unlikely	Minor	Low
Potential social impact related to perceived impacts to personal and property rights	Local study area	Possible	Minor	Moderate
Potential social impact related to decision making processes of the proposal	Local study area	Rare	Minimal	Low
Potential social impact related to perceived decision making processes of the proposal	Local study area	Possible	Minor	Moderate
Potential social impact on community values, fears and aspirations	Local study area	Possible	Minor	Moderate
Positive impacts				
Potential employment and business opportunities for local and regional residents and businesses	Residents and businesses within the local study area, regional study area	Likely	Moderate	High
Potential positive impact to local businesses and business environment associated with construction opportunities	Local study area, regional area, NSW State	Likely	Minor	High
Potential positive impact of new land use which aligns with broader strategic intent and zoning for the area	Local study area	Likely	Minor	High

17.3.2 Operation impacts

This section summarises the potential social impacts during operation of the proposal.

17.3.2.1 Way of life

Liveability

The operation of the proposal is not anticipated to cause any negative impacts to liveability or way of life. There would be minimal negative impacts associated with change in visual amenity, however this would not cause any substantial impacts to way of life.

The results from engagement activities show that there are perceptions regarding the negative impact of living near an EfW facility. This results in a likely perceived negative impact on liveability and way of life.

Employment

The proposal is expected to directly employ about 50 people to operate the EfW facility. This would create job opportunities for the existing and projected population and is expected to positively impact employment and businesses within the local study area and broader region. This impact is assessed to be likely, and minor in consequence, resulting in an overall high positive social impact. The related development assessed in **Chapter 22 Related development** would also create job opportunities.

Traffic and congestion

As summarised in **Chapter 15 Traffic and transport** and **Technical report K**, the operation of the proposal will cause traffic generation. However, the main intersections on Wallgrove Road and Austral Bricks Road would maintain the existing level of service currently available. While operational traffic is likely to increase, there are unlikely to be any significant adverse impacts associated with stress and anxiety, or reduced productivity, leisure or travel time. This impact is assessed to be possible, and minor in consequence, resulting in an overall moderate negative social impact.

Mode of travel

The proposal will seek to promote sustainable travel where possible, including Green Travel Plan providing cycle parking and end-of-trip facilities. This may result in an uptake of sustainable travel choice. This impact may increase levels of sustainable travel in the local study area and is assessed to be possible, and minor in consequence, resulting in an overall moderate positive social impact.

17.3.2.2 Community

Demographic composition and vulnerable groups

The operation of the proposal would provide additional jobs as discussed above. This is unlikely to impact on the demographic composition of the area given the existing working profile. It is not anticipated that, in operation, the proposal will have any broader impacts on the socio-demographic profile of the local study area or wider region.

Business community

The proposal would align with other businesses in the area, which are predominantly industrial, resulting in a likely, if minor, positive impact. It would provide a supportive environment for existing local businesses and the creation of new businesses, in reinforcing the local study area's character as an area for sustainable industry. The proposal would also provide essential infrastructure to support local, regional and State-wide business activities.

During operation, there are no anticipated direct impacts of the proposal on businesses within the local study area. Business receptors may experience some amenity and access impacts from operation, as summarised in the amenity section. These may impact on business operations, worker productivity and/or wellbeing of staff. However, these impacts are expected to be minimal, noting the presence of other amenity impact generating users (for example, the M7) in the local study area and the distance of the site from businesses. This impact is assessed to be possible, and minimal in consequence, resulting in an overall low negative social impact.

17.3.2.3 Access to and use of infrastructure, services and facilities

Social infrastructure and facilities

When operational, the proposal will not directly impact on any of the identified social infrastructure within the local study area. These impacts are assessed to be rare, and minimal in consequence, resulting in an overall low negative social impact.

The proposal will provide an EfW facility that will play a regional and State-wide role in waste management. It will help support the achievement of landfill diversion targets, preserve the limited landfill capacity available for the disposal of materials with no other management option and delay the need to establish new landfill sites. This results in a high positive impact.

Utilities infrastructure

There will be no significant impacts to public utilities and services, assessed to be unlikely and minimal, resulting in overall low negative social impact.

17.3.2.4 Health and wellbeing

Human health risk

A human health risk assessment as summarised in **Chapter 9 Human health risk** and detailed in **Technical report B** has been prepared, and it concludes that there are no unacceptable health risks for criteria associated with pollutant levels (NO_x , SO_x , CO, $\text{PM}_{2.5}$, PM_{10}) due to the proposal alone or in changing the background/existing levels. The assessment also identified no unacceptable risks associated with air quality from short-term exposures, long-term exposures, for rainwater tanks or for Prospect Reservoir. The assessment concludes that proposal traffic generation would result in minimal changes to the existing air quality, so no change in health impacts is expected.

Overall health risks are anticipated to be rare and minimal, resulting in a low impact. Continuous monitoring of proposal emissions will avoid impacts to human health.

Air quality impacts

The air quality impact assessment in **Chapter 8 Air quality and odour** and **Technical report A** found that the proposal can operate without causing any significant air quality impact to any sensitive receivers at or beyond the proposal boundary. All of the air pollutant results show levels below the applicable criteria, apart from cumulative ground level $\text{PM}_{2.5}$ and PM_{10} concentrations, due to the existing background levels which already exceed the criteria (as occurs across much of NSW). However, the predicted proposal contribution to concentrations is small and would not result in any discernible or measurable impact.

Perceived air quality and health impacts

However, while actual impacts are avoided, the impacts of air pollution as a result of the proposal are still a main concern of the community. There is potential for perceived impacts which can cause stress and anxiety to community members. This perceived impact is assessed to be possible, and moderate in consequence, resulting in an overall high negative social impact.

Hazard and risk

The preliminary hazard analysis (**Technical report J**, summarised in **Chapter 14 Hazards and risks**) identifies a range of potential risks, including fires, spills and dust explosions. Five hazards are identified as having potential to pose extremely rare but significant offsite risks. The worst being the release of ammonium hydroxide due to catastrophic failure of the ammonium hydroxide tank. From a social perspective, these present a risk to the health and wellbeing of both employees on site, and those in the immediate vicinity of the site. The proposal has been designed with best practice measures to maximise safety and minimise risk. Several additional mitigation measures have been identified, as set out in **Chapter 14 Hazards and risks** to respond particularly to the risks identified. This impact is assessed to be rare, but catastrophic in consequence, resulting in an overall high negative social impact.

17.3.2.5 Surroundings

Visual amenity

The greatest change to the existing environment will be the permanent addition of the facility – the buildings, stack and plume – to the landscape. While this is generally considered to be consistent with the industrial character of the area, and has incorporated design measures to mitigate visual impact, the proposal, particularly the stack and the plumes, would be visible above vegetation. The rural residential character of Horsley Park and views from the area would be obstructed, as well as views from Moonrise Lookout within the Western Sydney Parklands. The proposal would also be highly visible from the shared cycle path adjacent to the M7. The change in views from rural landscape areas may impact on community views from and overall appreciation of the area. This impact is assessed to be possible, and minor in consequence, resulting in an overall moderate negative social impact.

Noise impacts

Noise impacts have the potential to cause annoyance and sleep disturbances and can result in people changing their habits at home, including keeping doors and windows closed and not using outdoor areas as much. The proposal will emit noise from operating plant equipment during operation. The Operational Noise and Vibration Assessment (**Technical report I**) states that the site is predicted to comply with noise criteria at all nearby receivers during standard meteorological conditions and identifies only one minor exceedance at night in enhanced meteorological conditions. Therefore, social impact associated with operational noise is assessed to be possible, and minor in consequence, resulting in an overall moderate negative social impact.

Land use and zoning

The proposed development is consistent with the surrounding land uses, which are characterised by industrial and transport infrastructure. No additional direct land use or zoning impacts are expected during operation. The proposal would align with other land uses in the area being predominantly industrial activities.

The proposal would also offer essential infrastructure to support local, regional and State-wide business activities. This impact is assessed to be likely, and moderate in consequence, resulting in an overall high positive social impact. No impacts to future development within the local study area are anticipated.

17.3.2.6 Personal and property rights

There are no anticipated impacts to personal and property rights, however, residents and property owners in the areas surrounding the site may perceive that the establishment of an EfW facility in their region may impact on liveability and in turn, reduce property values. The perceived impacts are expected to be possible and minor consequence, resulting in a moderate impact.

17.3.2.7 Decision-making systems

There would be no impact on decision-making systems once the proposal is operation. It is noted that the community has expressed concerns around regulating the operation of the facility and accountability. There is potential for possible and minor perceived negative impact on decision-making systems, resulting in an overall moderate impact.

17.3.2.8 Fears and aspirations

No significant negative impacts are anticipated to community values as a result of the proposal. However, there are perceived impacts including general community concerns about living near an EfW facility. Concerns relate to impacts on air quality, traffic, the environment, and the safety of the facility. Efforts have been made throughout the engagement activities to reduce perceived impacts and address community concerns over perceived impacts. However, there may be some possible perceived minor negative impacts.

The proposal would result in several beneficial impacts for the community within the local study area and wider region. Benefits that may be of importance to the community include reduced emissions, generation of electricity, reduced waste disposal costs for councils and businesses, and benefits of reduced landfill, including reduced greenhouse gas emissions, and amenity loss. This impact is assessed to be likely, and minor in consequence, resulting in an overall high positive social impact.

The proposal is also expected to benefit encouraging sustainable waste management practices which align with community aspirations to be environmentally considerate. The proposal includes a visitor and education centre which would benefit local and regional schools and education facilities by offering a local learning destination and acting to educate the broader region on waste management.

17.3.2.9 Summary of operation impacts

Table 17.3 below summarises social impacts from the operation of the proposal. Any negative operation impacts would be medium to low. The proposal would have beneficial impacts on long-term employment opportunities, a shift towards more sustainable initiatives and community values, and providing key infrastructure for the community.

Table 17.3: Summary of operation impacts

Impact	Extent of impact	Likelihood	Impact	
			Consequence	Impact Rating
Negative impacts				
Potential impact on livability due to changes in amenity	Local study area and regional	Unlikely	Minimal	Low
Potential perceived reduction in livability due to changes in amenity	Local study area and regional	Likely	Minor	Moderate
Potential impact to way of life due to increase in traffic and congestion	Residents and communities within the local study area, commuters from the regional area	Possible	Minor	Moderate
Potential impact on way of life related to changes to mode of travel	Residents and communities within the local study area, commuters from the regional area	Rare	Minimal	Low
Potential impact on community demographic composition and vulnerable groups	Local study area and regional area	Unlikely	Minimal	Low
Potential social impact to local businesses and business environment associated with amenity and traffic impacts	Local study area	Possible	Minimal	Low

Impact	Extent of impact	Impact		
		Likelihood	Consequence	Impact Rating
Potential social impact to social infrastructure and community facilities	Residents and communities within the local study area	Rare	Minimal	Low
Potential social impact to utilities infrastructure and provision	Local study area	Rare	Minimal	Low
Potential social impact to human health risk	Local study area	Rare	Minimal	Low
Potential social impact due to changes in local amenity associated with increased air emissions	Local study area	Unlikely	Minor	Low
Potential perceived social impact related to perceived health impacts associated with air emissions	Local study area	Possible	Moderate	High
Social impact associated with hazard risks associated with fuel and chemicals stored on site	Local study area (immediate vicinity of the site)	Rare	Catastrophic	High
Potential social impact due to changes in landscape and visual changes	Local study area	Possible	Minor	Moderate
Potential social impact due to increased noise emissions	Local study area	Possible	Minor	Moderate
Potential impacts to current land use and land use zoning intent	Local study area	Unlikely	Minimal	Low
Potential perceived social impacts related to personal and property rights	Local study area	Possible	Minor	Moderate
Potential perceived social impact related to decision making processes of the proposal	Local study area	Possible	Minor	Moderate
Potential social impact on community fears and aspirations	Local study area	Possible	Minor	Moderate

Impact	Extent of impact	Likelihood	Impact	
			Consequence	Impact Rating
Positive impacts				
Potential employment and business opportunities for local and regional residents and businesses	Residents and businesses within the local study area, regional area	Likely	Minor	High
Potential social positive impact of shift towards more sustianabile travel	Residents and communities within the local study area, commuters from the regional area	Possible	Minor	Moderate
Potential positive impact to local businesses and busines enviornment through support for industry	Local study area, regional area, NSW State	Likely	Minor	High
Potential positive impact for the porposal as a key piece of infrastructure for the community	Local study area, regional area, NSW State	Likely	Moderate	High
Potential positive impact of new land use which aligns with broader strategic intent and zoning for the area	Local study area	Likely	Minor	High
Potential social postivie impact with regard ot sustianability and community aspirations	Residents within the local study area and regional area	Likely	Moderate	High

17.4 Mitigation

This section outlines proposed mitigation and management measures regarding the potential social impacts of the proposal during construction and operation. There are some potential adverse impacts which could be reduced, and beneficial impacts which could be enhanced through the implementation of mitigation and management measures. **Table 17.4** summarises the mitigation and management measures proposed to respond to the identified social impacts of the proposal.

Some of the social impacts identified result from broader impacts associated with noise, air quality, visual and traffic. In such instances, the relevant technical assessments have come up with relevant mitigation and management measures. These broader measures will also minimise social impacts, associated with health, air quality, noise, visual and traffic impacts.

Table 17.4: Social impact mitigation and management measures

ID	Potential impact	Mitigation/management
Construction mitigation measures		
SO1	Various negative social impacts associated with construction of the proposal on local residents, businesses, developers and other sensitive receptors.	<p>A targeted stakeholder and community engagement strategy and program will offer regular proposal updates, and liaison with sensitive receptors regarding impacts.</p> <p>A Community Reference Group (CRG) will be formed during construction and function across the life of the proposal. The purpose of the CRG will be to help long-term relationships with the community, providing a forum for genuine discussion of construction and operation of the facility, community concerns, information requests, and local initiatives and partnerships.</p>
SO2	Positive social impact of construction employment opportunities within the local study area and wider region.	A construction skills and employment strategy will support employment of local people in construction and boost the construction business base in the local study area and wider region.
Operation mitigation measures		
SO3	Various negative social impacts associated with operation of the proposal on local residents, businesses, developers and other sensitive receptors.	<p>A targeted stakeholder and community engagement strategy and program including the CRG will educate the community on perceived impacts, offer information regarding the EfW process, handle and respond to complaints, and engage with vulnerable groups and sensitive receptors.</p> <p>The CRG will also manage the allocation of a community investment fund in line with an agreed governance framework. Funding contributions are yet to be determined but are likely to be towards initiatives such as local sporting infrastructure, community facilities and environmental areas such as tree plantings.</p>

17.5 Residual impact assessment

Based on the application of the social specific mitigation measures, and broader mitigation measures in other technical assessments, the residual impacts of the proposal are summarised in **Table 17.5** and **Table 17.6** below.

Table 17.5: Residual impacts during construction

Impact	Extent of impact	Likelihood	Impact	
			Consequence	Impact Rating
Negative impacts				
Potential impact on livability due to construction dust, noise and vibration	Local study area and regional	Unlikely	Minimal	Low
Potential impact on way of life due to increase in traffic and congestion	Residents and communities within the local study area, commuters from the regional area	Possible	Minimal	Low
Potential impact on way of life related to changes to mode of travel	Residential and communities within the local study area, commuters from the regional area	Rate	Minimal	Low
Potential impact on demographic composition and vulnerable groups	Local study area and regional	Unlikely	Minimal	Low
Potential social impact to local businesses and business environment associated with amenity and traffic impacts	Local study area	Possible	Minimal	Low
Potential social impact due to changes to access and use of social infrastructure and community facilities	Residents and communities within the local study area	Rare	Minimal	Low
Potential social impact due to changes to utilities and infrastructure and provision	Local study area	Possible	Minor	Moderate
Potential social impact due to increased air emissions	Local study area	Unlikely	Minimal	Low
Potential social impact due to landscape and visual changes	Local study area	Possible	Minimal	Low
Potential social impact due to increased noise emissions	Local study area	Possible	Minor	Moderate
Potential impact to current land uses and operations	Local study area	Unlikely	Minimal	Low
Potential social impact related to personal and property rights	Local study area	Unlikely	Minor	Low
Potential social impact related to perceived impacts to personal and property rights	Local study area	Possible	Minimal	Low

Impact	Extent of impact	Likelihood	Impact	
			Consequence	Impact Rating
Potential social impact related to decision making processes of the proposal	Local study area	Rare	Minimal	Low
Potential social impact related to perceived decision making processes of the proposal	Local study area	Possible	Minimal	Low
Potential social impact on community values, fears and aspirations	Local study area	Possible	Minimal	Low
Positive impacts				
Potential employment and business opportunities for local and regional residents and businesses	Residents and businesses within the local study area, regional study area	Almost certain	Moderate	High
Potential positive impact to local businesses and business environment associated with construction opportunities	Local study area, regional area, NSW State	Likely	Minor	High
Potential positive impact of new land use which aligns with broader strategic intent and zoning for the area	Local study area	Likely	Minor	High

Table 17.6: Residential impacts during operation

Impact	Extent of impact	Likelihood	Impact	
			Consequence	Impact Rating
Negative impacts				
Potential impact on livability due to changes in amenity	Local study area and regional	Unlikely	Minimal	Low
Potential perceived reduction in livability due to changes in amenity	Local study area and regional	Possible	Minimal	Low
Potential impact to way of life due to increase in traffic and congestion	Residents and communities within the local study area, commuters from the regional area	Possible	Minor	Moderate

Impact	Extent of impact	Impact		
		Likelihood	Consequence	Impact Rating
Potential impact on way of life related to changes to mode of travel	Residents and communities within the local study area, commuters from the regional area	Rare	Minimal	Low
Potential impact on community demographic composition and vulnerable groups	Local study area and regional area	Unlikely	Minimal	Low
Potential social impact to local businesses and business environment associated with amenity and traffic impacts	Local study area	Possible	Minimal	Low
Potential social impact to social infrastructure and community facilities	Residents and communities within the local study area	Rare	Minimal	Low
Potential social impact to utilities infrastructure and provision	Local study area	Rare	Minimal	Low
Potential social impact from human health risk	Local study area	Rare	Minimal	Low
Potential social impact from changes in local amenity associated with increased air emissions	Local study area	Unlikely	Minor	Low
Potential perceived social impact related to health impacts associated with air emissions	Local study area	Possible	Minor	Moderate
Potential social impact of hazard risks associated with fuel and chemicals stored on site	Local study area (immediate vicinity of the site)	Rare	Catastrophic	High
Potential social impact due to changes in landscape and visual changes	Local study area	Possible	Minimal	Low
Potential social impact due to increased noise emissions	Local study area	Possible	Minor	Moderate
Potential impacts to current land use and land use zoning intent	Local study area	Unlikely	Minimal	Low
Potential perceived social impacts related to personal and property rights	Local study area	Possible	Minimal	Low

Impact	Extent of impact	Likelihood	Impact	
			Consequence	Impact Rating
Potential perceived social impact related to decision making processes of the proposal	Local study area	Possible	Minimal	Low
Potential perceived social impact on community fears and aspirations	Local study area	Possible	Minimal	Low
Positive impacts				
Potential employment and business opportunities for local and regional residents and businesses	Residents and businesses within the local study area, regional area	Likely	Minor	High
Potential social positive impact of shift towards more sustainable travel	Residents and communities within the local study area, commuters from the regional area	Possible	Minor	Moderate
Potential positive impact to local businesses and business environment through support for industry	Local study area, regional area, NSW State	Likely	Minor	High
Potential positive impact for the proposal as a key piece of infrastructure for the community	Local study area, regional area, NSW State	Likely	Moderate	High
Potential positive impact of new land use which aligns with broader strategic intent and zoning for the area	Local study area	Likely	Minor	High
Potential social positive impact with regard to sustainability and community aspirations	Residents within the local study area and regional area	Likely	Moderate	High