Appendix N – Social Impact Assessment

Hunter Water Corporation

Belmont Drought Response Desalination Plant
Social Impact Assessment

November 2019

Executive summary

The Lower Hunter region's reliance on rain-fed dams and groundwater supplies makes it vulnerable to severe drought. In response to this, the Lower Hunter Water Plan was developed in 2014. Within the plan, desalination is proposed in conjunction with other staged drought response measures in the event of an extreme drought.

Hunter Water has identified a site at Belmont South for a drought response desalination plant (the Project), which is also referred to as the temporary desalination plant. Construction of the Project would be instigated if and when dam storage volumes drop to specific trigger levels. Hunter Water submitted a State Significant Infrastructure (SSI) application for the Project to the Department of Planning and Environment in November 2017 and received the Secretary's' Environmental Assessment Requirements (SEARs). The SEARs outline the requirements for an Environmental Impact Statement (EIS), including a Social Impact Assessment (SIA), to be prepared for the Project.

This SIA report has been prepared to support the EIS for the Project. This report documents the existing social environment in and around the Project; identifies and assesses the potential social benefits and impacts of the Project construction and operation on Belmont South and broader communities; and recommends mitigation measures to address the identified social impacts. This SIA has been informed by SIA-specific consultation with Lake Macquarie City Council and outcomes of community consultation led by Hunter Water for the Project.

Existing social environment

Hunter Water currently supplies water to the Hunter Region, including the LGAs of Lake Macquarie, Newcastle, Cessnock, Port Stephens, Maitland, Dungog and some parts of Singleton. It services approximately 600,000 people in homes and businesses that are connected to the water supply network (Hunter Water, 2019). The Project area for the Belmont temporary desalination plant is located within the suburb of Belmont South in Lake Macquarie LGA.

In 2016, there were 1,054 people living in Belmont South. In comparison to the LGA, Belmont South residents display higher levels of socio-economic disadvantage. This includes higher proportions of people who require assistance with daily activities due to disability (8% compared to 6.6%), unemployed persons (11.9% compared to 6.9%), and lower income households ($1,026 compared to $1,313).

Outcomes of consultation

Relevant findings from consultation conducted for the SIA and the Project overall include:

- The community values maintaining the lifestyle and liveability of the region, including recreation. Recreational four-wheel driving is popular in the area and access to Nine Mile Beach is important to this user group.
- Construction impacts are expected to be minimal and temporary, due to the distance of the Project site to the nearest residential area of Belmont South.
- A temporary desalination plant will benefit residents of Lake Macquarie through ensuring a backup supply of water during periods of drought.
- The community values protecting the natural environment.
- Concern regarding access to Nine Mile Beach, including for 4WDs.
- Concerns around the visual amenity of the Project.

Potential social impacts during construction and operation

During construction, the potential social impacts would include:

- Minor increase in construction job opportunities that would benefit skilled workers in the area.
- Minor increase in the demand for food and beverage from construction workers that would benefit local businesses.
- Potential for increased noise and dust for users of Belmont Lagoon and Nine Mile Beach when adjacent to the Project site, due to construction activities occurring within the site. Noise and dust would be a nuisance and reduce people's ability to enjoy outdoor activities.
- Increased noise, vibration and dust on residents living near the power upgrades at the intersection of Marriot and Williams Street. There is also potential for minimal increased noise on residents living at the eastern end of Williams Street due to construction activities at the Project site. It may interrupt people's ability to enjoy outdoor areas, undertake leisure and social activities, or passive activities such as reading and resting. Some residents may choose to spend less time outdoors or close windows whilst indoors, which may cause some nuisance.
- Potential for real or perceived safety impacts for pedestrians as a result of a small number of heavy construction vehicle movements through local streets including Beach Street, Ocean Park Road and Hudson Street. Based on the existing social environment, vulnerable pedestrians may include children, people experiencing disability and older residents.

During operation, the potential social impacts would include:

- Provision of a back-up source of water would provide long-term positive benefits to Hunter Water customers across the region, including local and regional residents and businesses.
- A small number of ongoing jobs in relation to the maintenance and operation of the facility, which would benefit skilled workers.
- Potential for dust and emissions due to a small number of vehicle movements required for routine maintenance of the facility. As vehicles would only temporarily travel through residential areas to access the facility, it is unlikely that these changes would be noticeable to residents and beach users.

Recommended mitigation measures

Potential impacts on local amenity, particularly during construction, would be managed through mitigation measures identified in other EIS technical studies (e.g. noise and vibration, air quality, landscape character and visual impact).

In addition, ongoing genuine engagement with identified key stakeholders should continue prior to and during both construction and operation of the Project. This would include:

- Providing notifications to affected residents about planned Project activities, duration of activities, and expected impacts.
- Communicating Project information through Hunter Water's communication channels, such as a Project website and community update.
- Providing a feedback mechanism for residents to contact the Project.

These engagement activities would target key stakeholders which include:

- Users of Nine Mile Beach.
- Residents along Marriot Street, Hudson Street and Williams Street.
- Users of Belmont South Cemetery.
- Vulnerable community members, such as children, people experiencing disability and older residents.

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List of acronyms

Term/acronym	Definition
ABS	Australian Bureau of Statistics
The City Vision	*Lake Macquarie City Vision and Community Values – November 2016*
DECCW	Department of Environment, Climate Change and Water (former) (now Department of Planning, Industry and Environment)
EIS	Environmental Impact Statement
IRSAD	Index of relative socio-economic advantage and disadvantage
LGA	Local Government Area
RO	Reverse osmosis
SEARs	Secretary's environmental assessment requirements
SIA	Social Impact Assessment
SSI	State Significant Infrastructure
WWTW	Wastewater Treatment Works

1. Introduction

1.1 Project background

The Lower Hunter has sufficient water to meet its needs in average climate conditions in the medium term. However, the region's reliance on rain-fed dams and groundwater supplies makes it vulnerable to severe drought.

The Lower Hunter Water Plan was developed in 2014 with the aim to ensure that the Lower Hunter is able to withstand a severe drought as well as meeting community needs in the medium term. Within the plan, desalination is proposed in conjunction with other staged drought response measures in the event of an extreme drought. A drought response desalination plant would help make the water supply system more resilient to climate variability, with the primary benefit being that it would provide a drought contingency measure that is not dependent on rainfall.

Following a number of options assessments, a drought response desalination plant (also referred to as the temporary desalination plant) to be located within the existing wastewater treatment works site at Belmont was selected as the preferred option. Hunter Water submitted a State Significant Infrastructure (SSI) application for the Project to the Department of Planning and Environment in November 2017 and received the Secretary's Environmental Assessment Requirements (SEARs) in December 2017 (SSI 8896). These SEARs outline the requirements for the preparation of an Environmental Impact Statement (EIS) to assess the future construction and operation of the Project, with particular requirements for the assessment of social impacts.

Hunter Water is seeking a 10 year validity for the approval, during which time further project stages (including detailed design and construction) would be instigated if and when dam storage volumes drop to specific trigger levels.

1.2 Purpose and scope of this report

This report has been prepared to support the Environmental Impact Statement (EIS) for the proposed Belmont Drought Response Desalination Plant. The EIS has been prepared to accompany the application for approval of the Project, and addresses the environmental assessment requirements of the SEARs.

This report documents the methods, findings, and recommendations of the Social Impact Assessment (SIA) for the design, construction and operational phases of the Project. Specifically the SIA:

- Identifies the social area of influence, including the local government areas, suburbs, communities and infrastructure likely to be affected by the Project.
- Describes the existing social environment of the identified area, with particular reference to the Project location and community values.
- Identifies and predicts the potential social benefits and impacts on the communities and community facility infrastructure in the social area of influence.
- Develops mitigation measures to avoid or minimise potential adverse social impacts and maximise benefits to the community and other stakeholders.

1.3 Secretary's environmental assessment requirements

The SEARs for the Project require the preparation of a SIA, and identifies a number of specific requirements. The requirements of the SEARs are provided in Table 1-1, along with where each requirement has been addressed in this report.

Table 1-1 SEARs requirements

SEARs requirement	Where addressed
An SIA considering the relevant principles of the *Department of Planning and Environment's Social impact assessment guideline (September 2017)*	Section 3
An SIA undertaken by a suitably qualified person.	Section 3
Identification and prediction of impacts of the proposed development and the relative significance of these impacts (duration, extent, sensitivity and level of concern)	Section 6
A profile of the surrounding community including identification of key stakeholders and community members and groups (this is to include detail of the community's perception of the development, both tangible and intangible; positive and negative)	Sections 3.2, 4 and 5
Details of genuine engagement undertaken with identified key stakeholders and community members and groups and how this input will inform design and operation of the proposed development	Section 4
Methods for ongoing genuine engagement (procedures and mechanisms) with identified key stakeholders and community members and groups and how this input will inform operation of the proposed development.	Section 7

2. The project

A brief overview of the proposed desalination plant and associated infrastructure is presented in this Chapter to provide context for the SIA. A more detailed description of the Project is provided in the EIS report.

2.1 Project location

The Belmont drought response desalination plant is proposed to be located on the southern portion of the current Wastewater Treatment Works (WWTW) site, on the boundary of Belmont and Belmont South, off Ocean Park Road. The proposed plant is just east of the Belmont Lagoon and west of the coastal dunes along Nine Mile Beach.

2.2 Description of the Project

2.2.1 Objectives

The key objectives of the Project are to:

- Provide a rainfall independent water source in the event of an extreme drought
- Slow the depletion of existing water storages in the event of an extreme drought

The Project would address these objectives while considering the environmental, social and economic impacts, with the options assessment process considering these factors.

2.2.2 Key features

The Project is for the construction and operation of a drought response desalination plant, designed to produce up to 15 ML/day of potable water, with key components including:

- **Seawater intakes** – The central intake structures would be a concrete structure (referred to as a caisson) of approximately nine to 11 metres diameter, installed to a depth up to 20 m below existing surface levels. The intake structures will be finished above the existing surface (0.5 m to 1 m) to prevent being covered by dune sands over time. The raw feed water (seawater) input is proposed to be extracted from a sub-surface saline aquifer. This would be extracted by intake pipes located approximately eight to 15 m below ground level radiating out from the central structure. Pipelines and pumps are required to transfer the seawater to the desalination plant.
- **Water treatment process plant** – The water treatment process plant would comprise a range of equipment potentially in containerised form. Services to and from the process equipment (e.g. power, communications, and raw feed water (seawater)) would comprise a mix of buried and overhead methods. The general components of the water treatment process would comprise:
  - *Pre-treatment:* a pre-treatment system is required to remove micro-organisms, sediment, and organic material from the seawater.
  - *Desalination:* a reverse osmosis (RO) desalination system made up of pressurising pumps and membranes. These would be comprised of modular components. In addition, a number of tanks and internal pipework would be required.
  - *Post treatment:* desalinated water would be treated to drinking water standards and stored prior to pumping to the potable water supply network.

- **Brine disposal system** – The desalination process would produce around 28 ML/day of wastewater, comprising predominantly brine, as well as a small amount of pre-treatment and RO membrane cleaning waste. The waste brine from the desalination process would be transferred via a pipeline to the existing nearby Belmont WWTW for disposal via the existing ocean outfall pipe.
- **Power supply** – Power requirements of the plant would be met by a minor upgrade to the existing power supply network in the vicinity of Hudson and Marriot Streets. A power line extension from the existing line along Ocean Park Road into a new substation within the proposed drought response desalination plant would also be required.
- **Ancillary facilities** – including a tank farm, chemical storage and dosing, hardstand areas, stormwater and cross drainage, access roads, and fencing, signage and lighting.

A description of each of the key components of the Project is provided in Section 4 of the EIS.

The potable water pipelines connecting the Project to the potable water network do not form part of the Project and would be constructed separately. The construction and operation of the potable water pipeline would be part of a separate design and approvals process.

3. Assessment methodology

This SIA has been prepared in accordance with principles and methods endorsed by the International Association for Impact Assessments (Vanclay F, et al, 2015). The preparation of this SIA has also been guided by the objectives of the *Social impact assessment guideline for State significant mining, petroleum production and extractive industry development* (NSW Department of Planning and Environment, 2017), as required by the SEARs.

The personnel involved in the preparation of this SIA and their respective qualifications are provided in Table 3-1.

Table 3-1 Authors and qualifications

Name	Position/Project role	Qualifications	Relevant experience
Lauren Harding	Senior Social Sustainability Consultant/ Technical Lead	MSocSci BA (Anthropology) IAP2 Certified member IAIA Member	10 + years
Carmen Lau	Social Sustainability Consultant/Lead Author	BPlanning (Hons) IAP2 Certified member	5 + years
Sonya Pascoe	Social Sustainability Consultant/Author	BSocSci MIPH IAP2 Certified member	1+ years

The methodology for the assessment of the socio-economic impacts and benefits of the Project is provided in the following sub-sections.

3.1 Determining the study area

Based on a review of the Project description, the social area of influence that may be directly or indirectly impacted by the Project was identified.

Figure 3-1 shows a map of the local study area (Belmont South) and Lake Macquarie Local Government Area (the LGA). Figure 3-2 shows Belmont South in context with the Project area. Table 3-2 provides a description of Belmont South and the LGA.

Table 3-2 SIA study area

Study area	Description	Census areas
Local Study Area	The Local Study Area comprises Belmont South. This area is where the proposed works are likely to directly and indirectly impact surrounding residents and community members (e.g. changes to amenity, access and connectivity, community values).	Belmont South suburb
Local Government Area (LGA)	The broader Lake Macquarie LGA has been considered in this assessment as communities across the LGA may experience broader indirect impacts (e.g. improved water security).	Lake Macquarie LGA

Paper Size ISO A4

0 1 2 3 4 5

Kilometers

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

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Hunter Water Corporation
Belmont Temporary Desalination Plant
Social Impact Assessment

Project No. **22-19573**
Revision No. **0**
Date **03/10/2019**

Study Areas

Figure 3-1

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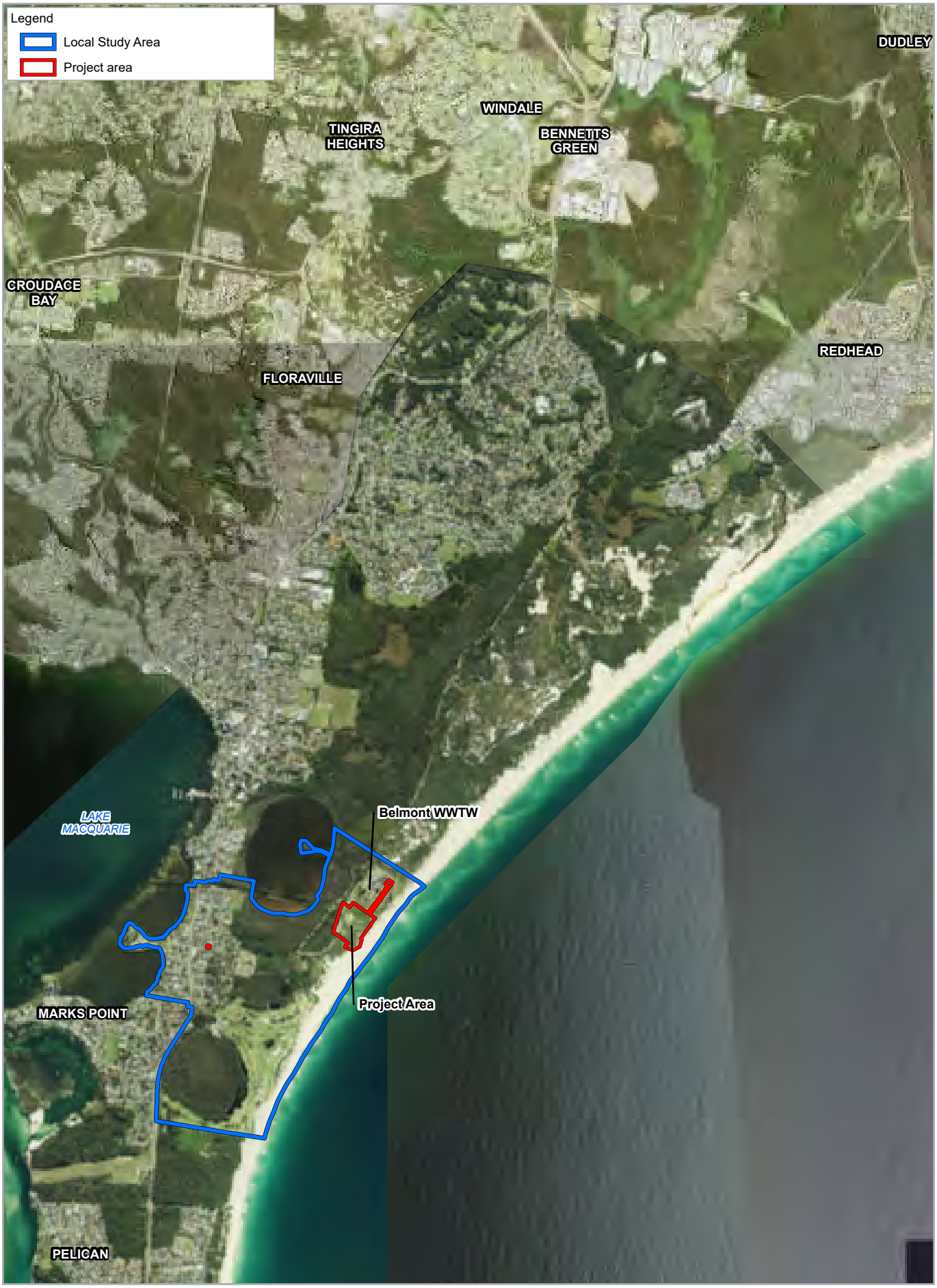
Print date: 03 Oct 2019 - 09:48

Data source: HWC: aerial imagery, 2018; LPI: DCDB/DTDB, 2017; LHCCREMS: Vegetation, 2003; LPI_Imagery_Best: © Department of Finance, Services & Innovation 20172018. Created by: TMorton



Paper Size ISO A4

0 250 500 750 1,000 1,250

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

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Hunter Water Corporation
Belmont Temporary Desalination Plant
Social Impact Assessment

Project No. **22-19573**
Revision No. **0**
Date **03/10/2019**

Local Study Area

Figure 3-2

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Print date: 03 Oct 2019 - 09:48

Data source: HWC: aerial imagery, 2018; LPI: DCDB/DTDB, 2017; LHCCREMS: Vegetation, 2003; LPI_Imagery_Best: © Department of Finance, Services & Innovation 20172018. Created by: TMorton

3.2 Consultation that has informed this SIA

3.2.1 Stakeholder identification and consultation strategy as part of the EIS process

Aligning with Hunter Water's 2018 Customer and Community Engagement Plan, a Community and Stakeholder Engagement Plan was developed for the preparation of the EIS and planning process for the temporary desalination plant. Hunter Water made a commitment to conduct open and inclusive engagement and consultation with key stakeholders and the wider community. Hunter Water actively engaged with government, businesses, community groups, residents and interested parties by seeking out opportunities to promote the Project, open effective lines of communication, publish and update Project information online and in print, and create opportunities for stakeholders to learn, share and engage with the Project.

The plan included activities to:

- Initiate and maintain open communication with relevant stakeholders and the community
- Communicate the regulatory approval process to stakeholders and the community
- Ensure relevant stakeholders and the community are informed about the Project and are given the opportunity to provide feedback
- Provide stakeholders with relevant information to show their feedback has been considered as part of the planning process
- Provide stakeholders with an opportunity to ask questions and to identify areas of concern with respect to the Project
- Effectively and proactively identify and manage stakeholder engagement issues

Hunter Water consulted with potentially affected residents, community members, relevant government agencies and other key stakeholders. There has been extensive consultation with Lake Macquarie City Council, government representatives and key stakeholders identified by the SEARs. Consultation with local Aboriginal stakeholders has been carried out in accordance with the Aboriginal Cultural Heritage Consultation Requirements of the Department of Environment, Climate Change and Water (DECCW) (2010). Hunter Water plans to continue to consult with the community and key stakeholders as planning progresses.

3.2.2 Stakeholder consultation methodology

A range of stakeholder consultation has been undertaken as part of the preparation of the EIS. The outcomes of these engagement activities have informed the understanding of the community's values, aspirations and concerns, as well as potential mitigation methods. Key stakeholders will continue to be involved in ongoing engagement throughout the development of the Project.

Hunter Water opened consultation with a media release in November 2018. A Project page was published on www.hunterwater.com.au in February 2018 followed by an interactive site on www.yourvoice.hunterwater.com.au.

Between February 2018 and February 2019, Hunter Water implemented a robust consultation plan including making direct contact with key stakeholders, face-to-face meetings, community presentations, events, door-knocking, direct letters and telephone interviews. Further details of the consultation, including copies of outgoing and incoming correspondence is provided within the EIS. This information was reviewed and relevant information extracted to inform the SIA.

Residents and community

Hunter Water undertook a door-knock and letterbox drop to residents in Belmont South in proximity to the Project area. Hunter Water also held information stalls at various events across the Lake Macquarie LGA, providing community members with project information and an opportunity to discuss the project directly with the Project team. Information stalls were held at:

- SEEN @ Swansea Open Day, Swansea Library
- Eastlakes NAIDOC Family Fun Day
- Lake Macquarie Living Smart Festival
- Belmont Citi Shopping Centre
- Redhead Beach Australia Day clean-up
- Redhead Surf Club twilight markets

Aboriginal community

Hunter Water made contact with Bahtabah Local Aboriginal Land Council during the initial stages of consultation, before the EIS commenced. Hunter Water sponsored a stall at the Pelican NAIDOC Week Family Day on 20 July and spoke directly to community members about the Project and provided an opportunity for feedback direct to the Project team.

Hunter Water also attended a meeting with Lake Macquarie City Council Aboriginal Liaison Officer and sent a follow up letter with project details. The Aboriginal community has also been engaged as part of the Aboriginal cultural heritage assessment.

Interest groups

Initial contact was made with interest groups via phone and email with an offer to provide a face-to-face briefing on the Project. A letter was sent to interest groups in August 2018. Individual briefings were held with:

- Belmont Wetlands State Park Trust
- Belmont and District Resident's Action Group
- Belmont Neighbourhood Watch Association
- Friends of Belmont Trust Landcare
- Lake Macquarie Sustainable Neighbourhood Alliance
- Belmont Golf Club
- Newcastle District 4WD Club
- Hunter 4x4 Club
- Belmont Country Women's Association in July 2019

Agencies, including Lake Macquarie City Council

Due to the type and scale of the Project, a number of government agencies were consulted via letters advising them of the Project objectives and preparation of the Environmental Assessment. Agencies were invited to make comments on the Project within 21 days of receipt of the letters and a mailing address and email address were supplied.

A telephone interview was also held with a Lake Macquarie City Council officer on Thursday 17 January 2019 to specifically inform the preparation of the SIA. This involved confirming the community profile such as community values, and understanding the potential social impacts and ways to address these.

As part of the EIS consultative activities, Lake Macquarie City Council has been regularly consulted and updated on the Project's progress throughout the design and approvals process in order to obtain their feedback and inputs on any concerns, challenges and also opportunities.

Other stakeholders

Contact was made with other identified key stakeholders via phone and email and a letter distributed in August 2018. A meeting was held with Belmont Police Community Liaison Officer in September 2018 and letters were sent to the following organisations:

- Ocean and Coastal Care – Lake Macquarie
- Newcastle Community Environment Network

3.3 Establishing the social baseline and community profile

A social baseline provides a basis for the assessment of potential social benefits and impacts. Section 5 of this report presents the social baseline established for this SIA. The baseline of the community in Belmont South was prepared using available demographic, community and economic data, including Australian Bureau of Statistics Census data and information from Lake Macquarie City Council's website.

The social baseline includes a review of consultation outcomes, nearby community facilities that may be affected by the Project as well as social plans that are relevant to this SIA to broadly understand community values. The *Lake Macquarie City Vision and Community Values – November 2016* (the City Vision) was reviewed in detail, which is guided by the aspirations, knowledge and values expressed by residents via various community consultation activities. Due to the focus on community values, the City Vision serves to highlight the priorities of the Lake Macquarie community.

For the purpose of this SIA, community values are generally considered to be the social ties established within a community, in part based around the features and qualities of the built environment that encourage these social ties and contribute to quality of life and wellbeing. Values of the community have also been informed by the stakeholder consultation described above.

3.4 Identification and assessment of the socio-economic benefits and impacts

The Department of Planning and Environment's *Social impact assessment guideline* (2017) states that a social impact is a consequence experienced by people due to changes associated with a project, which can involve changes to people's:

- **Way of life**, including:
  - How people live, for example, how they get around, access to adequate housing
  - How people work, for example, access to adequate employment, working conditions and/or practices
  - How people play, for example, access to recreation activities
  - How people interact with one another on a daily basis

- **Community**, including its composition, cohesion, character, how it functions and sense of place.
- **Access to and use of infrastructure, services and facilities**, whether provided by local, state, or federal governments, or by for-profit or not-for-profit organisations or volunteer groups.
- **Culture**, including shared beliefs, customs, values and stories, and connections to land, places, and buildings (including Aboriginal culture and connection to country).
- **Health and wellbeing**, including physical and mental health.
- **Surroundings**, including access to and use of ecosystem services, public safety and security, access to and use of the natural and built environment, and its aesthetic value and/or amenity.
- **Personal and property rights**, including whether their economic livelihoods are affected, and whether they experience personal disadvantage or have their civil liberties affected.
- **Decision-making systems**, particularly the extent to which they can have a say in decisions that affect their lives, and have access to complaint, remedy and grievance mechanisms.
- **Fears and aspirations** related to one or a combination of the above, or about the future of their community.

This SIA has considered the potential impacts relevant to this Project. As a result, the impact assessment chapter (Section 6) has discussed the potential impacts according to the impact categories described in Table 3-3 below.

Table 3-3 Impact categories discussed in this SIA

Impact category	Description
Amenity and character	Assessment of changes to the visual, noise, vibration and air quality amenity, and resulting impacts on residents, general community members and users of community facilities
Employment and economy	Assessment of changes resulting from economic and employment opportunities which affects the community, businesses within that community and the local workforce.
Access and connectivity	Assessment of the change in the way places are accessed in the local area, and resulting impacts on community members and users of community facilities.

Identification of the socio-economic benefits and impacts was undertaken based on:

- Review of the Project description
- Socio-economic baseline
- Outcomes of stakeholder consultation
- Findings of other relevant technical reports prepared for the EIS (air quality, traffic and transport, noise and vibration, visual and landscape)

Assessment of the social benefits and impacts was conducted using criteria in Table 3-4.

Table 3-4 Social impact assessment criteria

Criteria	Definition
Nature	• **Positive -** Impacts that result in net benefits for the community. • **Negative -** Impacts that result in detriments for the community or specific stakeholder groups. • **Neutral -** A change that does not result in a positive or negative impact but allows continuation of the usual function.
Extent	• **Project site –** impacts within the construction footprint only. • **Beyond the project site -** impacts occur beyond the site boundary, in a surrounding suburb or region.
Type of impact	• **Direct -** Impacts resulting directly from social changes caused by the Project. • **Indirect -** Secondary impacts that occur as a consequence of a direct impact rather than the actual Project.
Duration	• **Temporary –** up to six months • **Short term –** six months to one year • **Medium term –** one year to five years • **Long term –** five years or more
Severity	• **Negligible –** Marginal change from the baseline conditions so no discernible effect is expected and those affected would not notice the change. • **Minor –** A small but measurable change from the baseline conditions. Changes are expected to be temporary and/or only affect a small number of people and those affected could be expected to easily adapt or cope with the change. • **Medium –** Noticeable and relatively substantial change from the baseline conditions. Changes may be longer term or temporary and affect a large number of people and affected people would need a substantial capacity to adapt or cope with the change. • **Major –** A change fundamentally altering the baseline conditions in the community and affecting a large number of people, and/or a moderate number of people over the long-term and those affected would have limited or no capacity to adapt to change.
Sensitivity	• **Negligible –** Low vulnerability of community and environment receivers. • **Low –** Impact to areas or people of lower vulnerability, with a high resilience to change and capability to adapt. • **Moderate –** Impact to moderately vulnerable people or receiving environment with moderate importance to the community. • **High –** Impact would be to highly vulnerable people or receiving environment, such as those with high conservation value, uniqueness or rarity, with a low resilience to change.

3.5 Recommended mitigation measures

After determining the significance of the socio-economic impacts of the Project, specific mitigation measures were developed to address these. Recommended mitigation measures identified in other technical studies that are relevant to addressing identified social impacts have also been referenced.

4. Consultation

This section details the outcomes of stakeholder consultation undertaken for the EIS and for this SIA.

4.1 Key stakeholders

As part of initial site investigations and stakeholder analysis for the development of the Community and Stakeholder Engagement Plan stakeholder were identified, including social, community and commercial groups. Key stakeholders identified comprised:

- Nearby residents
- The local community
- Aboriginal community
- Interest groups
  - Belmont Wetlands State Park Trust
  - Belmont and District Resident's Action Group
  - Belmont Neighbourhood Watch Association
  - Friends of Belmont Trust Landcare
  - Lake Macquarie Sustainable Neighbourhood Alliance
  - Belmont Golf Club
  - Newcastle District 4WD Club
  - Hunter 4x4 Club
  - Belmont Surf Life Saving Club
  - Belmont Country Women's Association
- Department of Planning and Environment
- Department of Primary Industries
- Department of Industry – Water, Fisheries and Crown Lands
- Office of Environment and Heritage
- NSW Environment Protection Authority
- Metropolitan Water Directorate
- Roads and Maritime Service
- Lake Macquarie City Council
- Subsidence Advisory NSW
- SafeWork NSW
- NSW Police
- NSW Health
- Federal, State and Local members of parliament/council

4.2 Consultation outcomes that informed this SIA

4.2.1 Hunter Water community consultation

Hunter Water conducted consultation with stakeholders and the community. The purpose of this consultation was to inform them about the Project, to answer their questions and obtain their feedback and inputs on any concerns, challenges and also opportunities.

Consultation with the community and key stakeholders revealed that the area is popular for outdoor recreation, such as four wheel driving, cycling, bird watching, walking and coastal activities, including surfing, swimming and fishing. Consideration of these user groups were asserted to be of some significance by the consultation process.

Table 4-1 summarises the outcomes of the EIS consultation relevant to this SIA.

Table 4-1 Stakeholder and community consultation key themes and issues

Key themes	Issues
Feedback from key stakeholders and the community	
Community values	• Preservation of cultural and historical significance of the site, desire for heritage investigations in planning process. • Concerns raised regarding the protection of the natural environment. Questions on marine biodiversity, dredging and dune erosion during construction and operation. • Additional environmental concerns regarding the energy required for operation, including renewable energy sources. • Security and safety concerns regarding the site, generally during non-daylight hours, as well as coastal hazard lines. • General interest in water saving efforts that would reduce the requirement for a temporary desalination plant. • The community highly values lifestyle, recreation, liveability and wellbeing. • Some support for a 'back-up' water supply in the case of severe drought.
Employment and economy	• Concern about the cost of constructing and operating the plant and how this would be funded.
Amenity and character	• Concerns regarding the visual amenity of an unutilised structure. • General questions raised regarding visibility of the plant, generally neutral comments regarding the location next to existing WWTW.
Access and connectivity	• Concern regarding access to Nine Mile Beach, including for 4WDs. Notification of changes viewed as essential.

4.2.2 Lake Macquarie City Council

As part of consultation for the SIA, a telephone interview with a Lake Macquarie City Council officer was conducted on Thursday 17 January 2019 to confirm the understanding of the existing environment as described in Section 5. Table 4-2 provides a summary of the key points raised by the council officer during the interview.

Table 4-2 Summary of interview with Lake Macquarie Council officer

Topic	Summary points
Existing environment	• The community values maintaining the lifestyle and liveability of the region, including recreation. • Recreational four-wheel driving is a popular along Nine Mile Beach, and any restrictions to access will likely cause issues with the four-wheel driving community, which are both local and not local. • Residents in the region have expressed environmental values, such as protecting the natural environment and sustainable development, including energy use and offset. Belmont State Wetlands Trust and Sustainable Neighbourhood Alliance are key groups to liaise with for local environmental and social values. • Residents of Lake Macquarie would view a desalination facility as necessary infrastructure to secure water supply. • There may be a low level of community awareness about the Project. Communication and community notification are required.
Construction impacts	• Construction impacts are anticipated to be minimal and temporary. • Heavy truck movements are expected along the highway, and are tolerated by residents.
Operational impacts	• Operational impacts are expected to be minimal, owing to being contained within an existing Hunter Water WWTW site. • A desalination plant would benefit residents of Lake Macquarie through ensuring a backup supply of water during periods of drought.

5. Existing social environment

The existing environment provides a basis for the assessment of potential social benefits and impacts. This section provides a brief description of the Hunter Region and area surrounding the Project area. Following this is a demographic summary is provided based on ABS 2016 Census data for the Belmont South in comparison to the Lake Macquarie LGA.

This section also identifies the community infrastructure within one km of the Project area. Additionally, a summary of a community values is provided based on Lake Macquarie strategies and policies, as well as consultation outcomes as per Section 4 of this report.

5.1 Overview of the Hunter Region

In 2016, the total population of the Hunter Region was 620,530 (ABS 2016). Hunter Water currently supplies water to the region, including the LGAs of Lake Macquarie, Newcastle, Cessnock, Port Stephens, Maitland, Dungog and some parts of Singleton. It services approximately 600,000 people in homes and businesses that are connected to the water supply network (Hunter Water, 2019), which represents the majority of the Hunter Region population.

5.2 Area surrounding the site

The Project area for the Belmont temporary desalination plant is located within the suburb of Belmont South (Figure 3-2, Section 3.1), within the Lake Macquarie LGA. The proposed plant would be constructed within Hunter Water owned land, next to the existing WWTW, which is low lying and visible only to receivers directly adjacent to the facility. The area surrounding the Project area is relatively flat, and associated with open space land uses, which offers a buffer between the area and residential dwellings to the north and west.

The nearest residential receivers to the Project area are located on the eastern end of William Street in Belmont South. Nine Mile Beach is the nearest recreational area to the Project site. Sand dunes are located between the beach and the Project site, which currently shield views of the existing WWTW from the beach.

Belmont South is situated on a peninsula between the eastern coast line and the eastern boundary of Lake Macquarie, approximately 20 km south of Newcastle. The suburb is located just south of the Belmont Wetlands State Park, and contains a low density residential area. Belmont South and its neighbouring suburbs are a popular holiday destination (Lake Macquarie Council, 2018) and includes natural attractions such at the wetlands, Nine Mile Beach and Lake Macquarie.

Belmont South is intersected by the Pacific Highway which travels north-south through the suburb. The Highway links the surrounding suburbs of Charlestown and Swansea. Charlestown is a popular commercial and retail hub (Dantia, 2014).

The Belmont Wetlands State Park is situated approximately 800 metres north of the Project area and existing WWTW. As established by consultation outcomes (see Section 4.2), the area is popular with both visitors and the local community for outdoor recreation, such as four wheel driving, cycling, bird watching, walking and coastal activities, including swimming, surfing and fishing. 4WD motorists currently access Nine Mile Beach using both on and off-road entrances, including Ocean Park Road. The southern extent of the Fernleigh Track, a 16 km cycling track, runs adjacent to the wetlands and the coastal dunes, and concludes just north of the Belmont Lagoon.

5.3 Demographic summary of the Belmont South community

This section provides a demographic summary of the suburb of Belmont South compared to the Lake Macquarie LGA. This was based on ABS 2016 Census data. A list of demographic indicators that were analysed is provided in Appendix A.

In 2016, there were 1,054 people living in Belmont South. In comparison to the LGA, the population of Belmont South is generally characterised by:

- A slightly older median age at 44 years compared to the LGA at 42 years.
- A similar proportion of people over 60 years (25.2% in Belmont South compared to 27.1% in LGA). Belmont South also has a similar proportion of people aged 18 years and under (19.7% compared to 22.1% in the LGA).
- The population was characterised by mostly families although there was a smaller proportion of couples with children (30.9% compared to 42% in the LGA).
- There were higher proportions of lone person households than the LGA (27.6% compared to 24.1%) and one parent families (26.6% compared to 17.4%).
- A lower level of people from a non-English speaking background (2.5% of people born in non-English speaking countries in Belmont South, compared to 5.3% in LGA), and a lower level of people who speak a language other than English at home (2.8% compared to 4.4% in LGA).
- A higher proportion of Indigenous persons compared to the LGA (6.3% in Belmont South compared to 4.1% in the LGA).
- A lower level of completion of Year 12 or equivalent (26.6% compared to 38.1% in LGA).
- A significantly higher level of renting in Belmont South compared to the LGA (40.1% compared to 23.8% in the LGA). Of these rented dwellings, a significantly higher proportion are public housing dwellings (37.5% in Belmont South compared to 19.1% in the LGA).
- A higher level of need for assistance with self-care, communication or mobility activities, due to disability (8.0% compared to 6.6% in LGA).
- A lower rate of labour force participation in relation to the LGA (53.2% compared to 56.8% in the LGA). Belmont South also has a higher proportion of unemployed persons (11.9% compared to 6.9% in the LGA).
- Lower median individual income per week ($511 compared to $609 in the LGA), and a lower median household income per week ($1,026 compared to $1,313 in the LGA).
- A smaller proportion employed in the construction industry (14.3% compared to 17.7% in the LGA), however construction is the second largest industry of employment in Belmont South, after health care and social assistance (16.1%).
- A lower proportion of people traveling to work by car (driving or passenger) compared to the LGA (78.0% compared to 88.5%).

5.3.1 Index of relative socio-economic advantage and disadvantage (IRSAD)

The IRSAD was developed by the ABS to measure relative socio-economic advantage and disadvantage within Australia. The higher the score, the lower the level of disadvantage within that area. Belmont South has an IRSAD score of 890 and the LGA has an IRSAD score of 985.

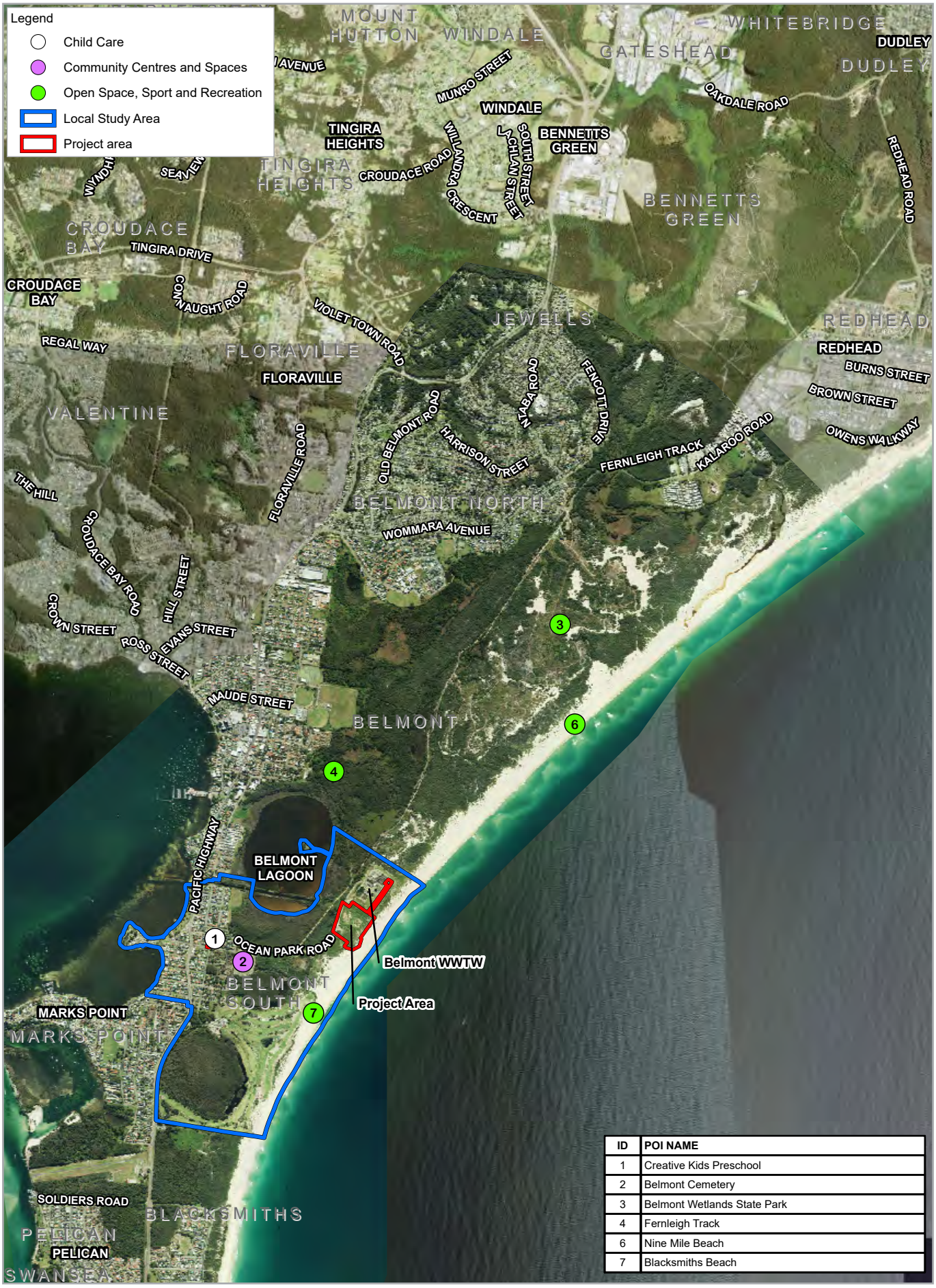
The above scores show that Belmont South has a lower score compared to the LGA, indicating a higher level of disadvantage. This is consistent with the indicators above, where disadvantage may be explained by higher proportions of unemployed persons, people living in public housing, lower income households, and people that require assistance with daily activities due to disability compared to the LGA.

5.4 Community infrastructure

This section identifies community infrastructure located within one kilometre of the Project area description of the facilities is detailed in Table 5-1 and a map showing these facilities within Belmont South is provided in Figure 5-1.

Table 5-1 Community infrastructure within one kilometre of the Project

ID	Name	Description
Child Care		
1	Creative Kids Preschool	Creative Kids Preschool is a small preschool, with places for only 18 children each day. It is located 1 km south-west of the Project area.
Community Centres and Spaces		
2	Belmont Cemetery	The cemetery is situated on Ocean Park Road, approximately 650 metres west of the Project area amongst a low-density residential area.
Open space, sport and recreation		
3	Belmont Wetlands State Park	Beginning 700 metres north of the Project area, the wetlands extend almost 4.5 km from Belmont North towards Redhead.
4	Fernleigh Track	The Fernleigh Track runs 3.5 km north-south through the Belmont Wetlands, finishing at the south-west boundary of the wetlands. The southern extent of the track begins 1.3 km north of the plant.
5	Belmont Golf Club	The golf club is situated under 200 m south of the southern extent of the proposed plant. There are plans to expand the golf course and build a retirement village on the land situated between the golf club and Hunter Water owned land.
6	Nine Mile Beach	Nine Mile Beach is located less than 20 metres east of the Project area and extends for more than 4 km. The beach is popular for outdoor recreation and coastal activities, such as four-wheel driving, fishing, surfing and walking. 4WD motorists currently access the beach using both on and off-road entrances, including Ocean Park Road.
7	Blacksmiths Beach	Blacksmiths Beach adjoins Nine Mile Beach to the south, and is located less than 1 km from the Project area. The beach is popular for outdoor recreation and coastal activities, such as swimming, fishing, surfing and walking.



ID	POI NAME
1	Creative Kids Preschool
2	Belmont Cemetery
3	Belmont Wetlands State Park
4	Fernleigh Track
6	Nine Mile Beach
7	Blacksmiths Beach

Paper Size ISO A4

0 310 620 930 1,240

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

N

Hunter Water Corporation
Belmont Temporary Desalination Plant
Social Impact Assessment

Project No. **22-19573**
Revision No. **0**
Date **03/10/2019**

Community infrastructure

Figure 5-1

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Print date: 03 Oct 2019 - 09:51

5.5 Community values

The values of Lake Macquarie communities relevant to this SIA have been identified based on a review of consultation outcomes and policy documents. This includes EIS community consultation (refer to Section 4) and a review of *The Lake Macquarie City Vision and Community Values – November 2016* (the City Vision) (Lake Macquarie City Council, 2016).

From the community reference group developed to inform the City Vision plan, commonly occurring community values comprised:

- **Unique landscapes:** an emphasis on protecting and enhancing the revered natural environment, enthusiasm for 'vibrant' town centres and the natural landscape as being integral to the identity of Lake Macquarie.
- **Lifestyle and wellbeing:** the community has expressed the importance of adaptable and inclusive health and community services as part of the shared vision for the region. The provision of safe public space is seen to compliment this vision through encouraging physical activity, and therefore health and well-being.
- **Connected communities:** the community values having the capacity to be adaptable to change, including climate change as well as the need to encourage sustainable lifestyles and sustainable infrastructure. One measure used to assess this vision is seeing a decrease in water usage within the region.
- **Shared decision-making:** the community has thrived on their ability to participate and be heard during decision-making that impacts the region. The community has expressed a strong value for knowing how and why decisions are made. Being informed is seen as a large aspect of feeling involved, where high quality and timely communication is important.

5.5.1 Environmental protection and amenity

The City Vision highlights that Lake Macquarie resident's value maintaining the lifestyle and liveability of the region, which should be embedded in the maintenance and protection of the natural and built environment. The Lake Macquarie community also values the preservation of the natural environment, and the identification and protection of areas of cultural significance.

The value of environmental protection has been frequently raised in both community consultation conducted for the EIS (see section 4.2) and the City Vision. Adaptation to climate change and water availability are also valued by the community.

Consultation conducted as part of the EIS (see section 4.2) and SIA (see section 4.2.2) indicates that the Lake Macquarie community values the existing visual amenity of the area, as well as improving safety in the area.

5.5.2 Recreation and leisure

Consultation conducted as part of the EIS (see section 4.2) demonstrates that recreation is a large aspect of maintaining liveability, where recreational four-wheel driving has been identified as a key recreation activity in the surrounding area of the proposed area. The City Vision has established that access to open, green spaces for the benefit of health and well-being as a key value of regional communities.

5.6 Key findings

Based on the information presented in the existing environment section, below is a summary of the key findings relevant to the SIA:

- The Project is located within Hunter Water owned land, next to an existing facility which is not in plain sight of any dwellings or community facilities within the area.
- Belmont South is characterised by a higher level of disadvantage compared to the LGA. Belmont South is also characterised by lower education levels, higher rate of unemployment and a higher proportion of public housing. Belmont South has higher rates of vulnerable communities including a higher proportion of Indigenous people, and a higher proportion of people who need assistance.
- In total there are seven community facilities located nearby to the Project area, these include Creative Kids Preschool, Belmont Cemetery, Belmont Wetlands State Park, Fernleigh Track, Belmont Golf Club, Nine Mile Beach and Blacksmiths Beach.
- The Project area is located amongst areas utilised for popular outdoor recreational activities. These activities include four-wheel driving, coastal activities, bike riding and walking.
- Lake Macquarie communities value the protection and maintenance of the natural environment. They also value the ability to adapt to climate change and water availability.

6. Social impact assessment

This section assesses the potential social impacts of the Project during the construction and operation phases. This has involved a review of various information sources as described in Section 3.4. The social impacts have been assessed against the impact assessment criteria as presented in Table 3-4.

6.1 Construction impacts

6.1.1 Amenity and character

Amenity and character refers to the noise, air quality and visual amenity of an area that provides for the enjoyment of residents and community members. As identified in Section 5.2, the nearest residential receivers to the Project area are located on the eastern end of William Street. The closest recreational area is Nine Mile Beach, which is located adjacent to the proposed Project construction activities and the site compound.

Noise and vibration

Based on the Noise and Vibration Impact Assessment (appendix Q of the EIS), residents surrounding the Project area usually experience relatively low levels of noise. The assessment modelled the worst case scenarios for noise and vibration levels during construction, where all anticipated equipment are operating at maximum levels simultaneously. Based on this, during construction sporadic noise during the daytime may be noticeable to the following receivers:

- Residents near the eastern end of Williams Street, due to construction activities occurring within the Project site.
- Residents within approximately 45 m of the proposed power upgrades at the intersection of Marriot Street and Hudson Street. Localised vibration may also be perceptible to some of these residents.
- Users of Nine Mile Beach and Blacksmiths Beach, due to construction activities occurring at the Project site.
- Users of Belmont Cemetery, due to construction activities occurring at both the Project site and the power upgrades at the Marriot Street and Hudson Street intersection.

It is noted that people's experience of changes to noise is subjective and varies from person to person. Sporadic noise has the potential to temporarily affect the local amenity of residents and users of the beach and cemetery. It may interrupt people's ability to enjoy outdoor areas, undertake leisure and social activities, or passive activities such as reading and resting. Some residents may choose to spend less time outdoors or close windows whilst indoors, which may cause some nuisance.

Given the relatively short construction period (up to eight months) and that sporadic noise would affect a small number of residents, these social impacts are expected to be short-term and minor. Some vulnerable community members may be more sensitive to sporadic noise, so these social impacts may be greater for these residents. As identified in the existing social environment (see Section 5.3), vulnerable community members may include unemployed persons, people living in public housing, lower income households, and people who require assistance with daily activities due to disability.

Air quality

Based on the Air Quality chapter of the EIS (see Section 7.15 of the EIS), the ambient background air quality is good and is not adversely impacted by exhaust fumes or industrial activities. The construction of the Project would generate localised impacts on air quality, primarily due to dust generation from earth and machinery movements and wind. Dust may affect the following receivers:

- Residents adjacent to the intersection of Marriot Street and Williams Street, due to the power upgrades at this location
- Users of Belmont Lagoon and Nine Mile Beach, due to construction activities occurring at the Project site

Dust may cause nuisance for these residents and users. Social impacts may include some residents needing to clean dust that has settled on outdoor surfaces at their homes, and potential to temporarily disrupt the enjoyment of outdoor areas by some of the residents and community facility users. However, generally it is considered that most people would be able to continue with their daily activities.

According to the Air Quality chapter in the EIS, there is a small potential for odour to be generated during the construction phase of this Project by activities within the Project site and power upgrade works site. Based on the Air Quality chapter, odour is not expected to be noticeable to residents if managed correctly.

Given the relatively short construction period (up to eight months), dust management measures, and the small number of residents and community facility users who may be affected, these social impacts are expected to be short-term and negligible.

Visual amenity

As noted during community consultation undertaken for the Project (see Section 4.2), local communities value natural landscapes and open space for their contribution to lifestyles and surrounding local amenity.

As stated in the Landscape Character and Visual Impact Analysis, the Project area is set back from Nine Mile Beach. Forested vegetation acts as a buffer between the Project area and residential dwellings to the north and west. The sand dunes east of the Project area also offer visual screening of the site from Nine Mile Beach. The Analysis found the Project is not expected to detract from the existing landscape character of the Project setting, as the Project would be located next to the existing WWTW structure with limited visibility from the surrounds.

Based on the above, construction of the Project is not expected to be visible from residential properties. Users of Blacksmiths Beach may be able to view some construction activities if they are directly adjacent to the Project area, however it is considered that they would be able to continue to enjoy their activities at the beach. As a result, the social impacts are considered to be short-term and negligible.

6.1.2 Employment and economy

The construction program is estimated to require 25 full time equivalent personnel, including 10 personnel for water intake construction, 10 personnel for plant construction and five personnel for power upgrades. This would create a minor increase the job opportunities available to skilled workers in the region, and provide a minor increase in opportunities for those completing an apprenticeship. As discussed in section 5.3, construction is a major industry of employment in Belmont South demonstrating that there would likely be an existing labour force within the region who could take advantage of the Project employment opportunities. This would result in a short-term positive impact for these skilled workers.

Construction workers may create some demand for local food and beverage, and retail services close to the Project site. Given the small number of workers and short construction program, this would result in a minor positive impact for these local businesses.

6.1.3 Access and connectivity

According to the Traffic assessment (see Appendix P of the EIS) during construction, a small number of construction vehicle movements can be expected on the following roads to the Project area:

- Pacific Highway
- Beach Street
- Ocean Park Road
- Hudson Street

During peak construction, the Traffic assessment estimates that hourly vehicle movements during the AM and PM peak periods would consist of the following:

- Six inbound heavy vehicle movements and six outbound heavy vehicle movements
- Ten inbound or outbound light vehicle movements

Due to the small number of movements, resident and general community member access and connectivity is not expected to be affected along these roads.

However there is potential for real or perceived safety impacts for some pedestrians due to heavy vehicles, particularly on Beach Street, Ocean Park Road and Hudson Street which are local roads. As identified in the existing social environment (see Section 5.3), there may be vulnerable community members in the local area such as children, people experiencing disability and older residents. The social impact is expected to be short-term and minor for some residents living along these streets, and for vulnerable community members who may be walking along these streets.

As noted in stakeholder and community consultation undertaken for the Project (see Section 4.2.1), access to the beach and open space is valued by the surrounding community. 4WD motorists currently access Nine Mile Beach using both on and off-road entrances, including Ocean Park Road. Through consultation activities, 4WD motorists raised concerns about beach access as a result of the construction and operation of the Project. During construction, access along Ocean Park Road would be maintained for all road users, including motorists, cyclists and pedestrians. As a result, 4WD motorists and other users are expected to be able to continue with their leisure and social activities at the beach. Any perceived impacts to access would be negligible and temporary.

6.2 Operational impacts

6.2.1 Amenity and character

Noise and vibration

As identified in the Noise and Vibration report the existing WWTW is located next to the Project area which contributes to the current noise levels experienced by receivers using Nine Mile Beach and Blacksmiths Beach. It is expected that the noise levels associated with the operation of the proposed plant would not be noticeable to residents on Williams Street. Operational noise experienced by those using Blacksmiths Beach would be similar to the existing background noise generated by the existing WWTW. As a result, no social impacts are expected as a result of the Project's operation in terms of noise and vibration.

Air quality

Based on the Air Quality chapter of the EIS (see Section 7.15) there would be routine chemical and supply deliveries and periodic maintenance at the temporary desalination plant site which would have the potential to generate emissions and dust from vehicles and equipment. During operation, there would be a small number of vehicle movements which would use existing sealed roads to access the area. As vehicles would only temporarily travel through residential areas to access the facility, it is unlikely that these changes would be noticeable to residents and beach users. As a result, no social impacts are expected as a result of the Project's operation in terms of air quality.

Visual amenity

As described in Section 6.1.1 above, due to the limited visibility of the Project area from Blacksmiths Beach and placement of the plant next to the existing WWTW structure, social impacts are not expected on beach users in terms of visual amenity.

6.2.2 Employment and economy

The Project's key objective is to provide a supplementary water supply to slow the depletion of existing water storages in the event of an extreme drought. This would likely provide a long-term positive impact for a range of local and regional businesses.

The number of jobs created by the operation of the Project is not specified by the EIS. However the Project is anticipated to result in a small number of ongoing jobs in relation to maintenance and operation of the facility. This would create a minor increase to job opportunities available to skilled workers, resulting in a minor positive long-term impact.

6.2.3 Access and connectivity

Hunter Water customers from across the Hunter Region would benefit from access to water supplied by the Project through the offset of water supply to other water storage. In the case of a potential drought, Hunter Water customers would have ongoing access to water to meet their needs. This would be a long-term positive impact for Hunter Region residents.

As established in the Traffic assessment, the operational traffic volumes of the Project are expected to be minimal. As a result, no social impact is expected on residents, general community members or users of Nine Mile Beach including 4WD motorists as a result of traffic or changes to access.

7. Recommended mitigation measures

The mitigation and management measures developed in various technical studies and chapters in the EIS together will assist in avoiding and/or managing social impacts identified and described in Section 6. In addition, this SIA recommends a range of mitigation and management measures specifically to address social impacts, discussed in Table 7-1.

Table 7-1 Recommended mitigation measures

Category	Mitigation or management
Amenity and character	Potential impacts on local amenity, particularly during construction, would be managed through mitigation measures identified in other technical studies and the EIS, including: • Noise and Vibration Assessment (Appendix Q of the EIS) • Air Quality chapter of the EIS (Section 7.15) • Landscape Character and Visual Impact Analysis (Appendix R of the EIS) In addition, ongoing genuine engagement with identified key stakeholders (refer to Section 4.1) should be undertaken prior to and during both construction and operation of the Project to identify potential issues as they arise. This should include: • Notifying affected residents about planned Project activities, duration of activities, and expected impacts. Consultation should target vulnerable community members, who may include older residents and people experiencing disability. Notification should be provided to users of Nine Mile Beach and Belmont Cemetery as well as residents including those living along: – Williams Street – Marriot Street – Hudson Street • Communicating Project information through Hunter Water's communication channels, such as a Project website and community update. • Providing a feedback mechanism for residents to contact the Project.
Access and connectivity	Access and connectivity impacts would be managed through implementation of the mitigation measures outlined in the Traffic assessment (Appendix P of the EIS). As part of ongoing community engagement (as recommended above), the Project should communicate information related to heavy construction vehicle movements along local residential streets such as Beach Street, Ocean Park Road and Hudson Street. This may assist in reducing potential for real or perceived safety risks to pedestrians, particularly vulnerable community members, such as children, people experiencing disability and older residents.

8. Conclusion

This report has been prepared to support the EIS for the Project. This report documents the methods, findings, and recommendations of the SIA for the construction and operational phases of the Project.

During construction, the potential social impacts include:

- Minor increase in construction job opportunities that would benefit skilled workers in the area.
- Minor increase in the demand for food and beverage from construction workers that would benefit local businesses.
- Potential for increased noise and dust for users of Belmont Lagoon and Nine Mile Beach that are adjacent to the Project site, due to construction activities occurring within the site. Noise and dust may be a nuisance and reduce people's ability to enjoy outdoor activities.
- Increased noise, vibration and dust on residents living near the power upgrades at the intersection of Marriot and Williams Street. There is also potential for minimal increased noise to residents living on the east end of Williams Street due to construction activities at the Project site. It may interrupt people's ability to enjoy outdoor areas, undertake leisure and social activities, or passive activities such as reading and resting. Some residents may choose to spend less time outdoors or close windows whilst indoors, which may cause some nuisance.
- Potential for real or perceived safety impacts for pedestrians as a result of a small number of heavy construction vehicle movements through local streets of Beach Street, Ocean Park Road and Hudson Street. Based on the existing social environment, vulnerable pedestrians may include children, people experiencing disability and older residents.

During operation, the potential social impacts have been identified as:

- Provision of a back-up source of water would provide long-term positive benefits to Hunter Water customers across the region, including local and regional residents and businesses.
- A small number of ongoing jobs in relation to the maintenance and operation of the facility, which would benefit skilled workers.
- Potential for dust and emissions due to a small number of vehicle movements required for routine maintenance of the facility. As vehicles would only temporarily travel through residential areas to access the facility, it is unlikely that these changes may be noticeable to residents and beach users.

Potential impacts on local amenity, access and connectivity would be generally minimal and could be managed through mitigation measures identified in other technical studies and identified in the EIS, including Noise and Vibration Assessment, Air Quality chapter in the EIS, Traffic assessment, and Landscape Character and Visual Impact Analysis.

In addition, ongoing genuine engagement with identified key stakeholders should continue prior to and during construction of the Project. This engagement should provide key stakeholders and the community with information about the project activities and provide a feedback mechanism for residents to contact the project team. Notification about planned activities should target vulnerable community members, local residents, beach users and cemetery users.

As part of ongoing community engagement (as recommended above), the Project should communicate information related to heavy construction vehicle movements along local residential streets such as Beach Street, Ocean Park Road and Hudson Street. This may assist in reducing potential for real or perceived safety risks to pedestrians, particularly vulnerable community members, such as children, people experiencing disability and older residents.

If the recommended mitigation measures are implemented social impacts during construction and operation that are identified by this report are expected to be reduced.

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Appendices

Appendix A – Demographic profile for Belmont South and Lake Macquarie LGA

Indicator	Belmont South (Local Study Area)	Lake Macquarie LGA
Total population	1,054	197,371
Median age	44	42
25-34 years	8.5%	11.0%
Over 60 years	25.2%	26.9%
Indigenous persons	6.3%	4.1%
Persons born in Non Main English Speaking countries	2.5%	5.3%
Language spoken at home other than English	2.8%	4.4%
Family households	70.9%	73.5%
Lone person households	27.6%	24.1%
Group household	1.4%	2.4%
Average household size	2.3	2.5
Couple family with children	30.9%	42.0%
Couple family without children	38.2%	39.5%
One parent family	26.6%	17.4%
Other family	4.0%	1.2%
Need for assistance	8.0%	6.6%
Fully owned	31.3%	39.1%
Owned with a mortgage	26.7%	37.1%
Rented (total)	40.1%	23.8%
Renting State or territory housing authority	31.3%	19.1%
Separate House	73.8%	77.9%
Median household income ($/weekly)	$1,026	$1,313
Median individual income ($/weekly)	$511	$609
Labour force participation	53.2%	56.8%
Unemployed persons	11.9%	6.9%
Completion of year 12 (or equivalent)	26.6%	38.1%
Households without a motor vehicle	9.8%	5.9%
Households with one or more motor vehicles	87.1%	94.0%
Train (travel to work)	0.0%	1.3%
Bus (travel to work)	2.6%	1.3%
Car (ravel to work as driver or passenger)	78.0	88.5%
Cycling (travel to work)	0.7%	0.5%
Walked only	2.6%	1.6%
*SEIFA Score (IRSAD)	890	985

* SEIFA Deciles (IRSAD): all areas are ordered from lowest to highest score, then the lowest 10% of areas are given a decile number of 1, the next lowest 10% of areas are given a decile number 2 and so on, up to the highest 10% of areas which are given a decile number of 10. A score of 1 indicates relative disadvantage while a score of 10 indicates relative advantage.

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		Name	Signature	Name	Signature	Date
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