

Huia Water Treatment Plant Options: Social Impact Assessment Summary Document

1 Introduction

The Western Water Supply Project is part of Watercare's plans to augment Auckland's water supply to support planned and forecasted population growth in the Auckland region. Watercare is in the process of analysing the relevant material required to decide a preferred site to establish a new Water Treatment Plant (WTP) to replace the existing plant at Huia, Titirangi, Auckland.

The purpose of this Summary Document is to provide an overview of the assessment of social impacts of establishing a new WTP, considering four short-listed options. As such, this document is a summary of the full Social Impact Assessment (SIA) (August 2017).

The purpose of the SIA is to provide an assessment and commentary on the four short-listed options for the WTP. This assessment follows on from an earlier technical assessment of the long list of options (which are not considered here).

The four short-listed options assessed in the SIA are:

- The development of a new WTP at 130 Parker Road (known as the **Parker Road North Option**);
- The development of a new WTP at 152 Park Road (known as the **Parker Road South Option**);
- The development of a new WTP on Watercare land adjacent to the existing Huia WTP on Manuka Road (known as the **Manuka Road Option**); and
- The replacement of the Huia WTP on the existing site at Woodlands Park Road (known as the **Replacement Option**).

1.1 Limitations and Assumptions

As a comparative evaluation, the SIA does not provide a specific assessment of the social benefits of the WTP (common to all options), which is a key component the Western Water Supply Strategy. It is noted that the SIA anticipates that there are high social benefits attributed to quality potable water supply and resilient water supply across the Region. As these benefits are attributed to all options, they are not discussed further.

The SIA acknowledges one limitation in respect of the impact assessment for the Replacement Option. This is because the evaluation does not include a full social assessment of the potential impacts that may arise if other water supply works or capital spend is required to be brought forward for this option (i.e. the potential social impacts of establishing another WTP or obtaining a water take from the Waikato River). It is understood that such works may be required to enable decommissioning of the existing WTP before replacing it on the site. However, the impacts of this work have not been assessed due to the uncertainty of the works. The potential for social issues with such works are acknowledged.

1.1.1 WTP Site Configuration Construction Methodology

The Huia WTP Site Selection Shortlist Site Development Report (September 2016) by GHD outlined treatment plant layouts for each of the options listed above. These high level treatment plant configurations and subsequent information on construction works have been utilised for the purposes of the SIA. These details have been used to provide input on the property requirements used in this SIA. It is understood that the design detail of these reports is to demonstrate broad

details of scale, footprint and at a conceptual level the potential built form of a WTP on each site option. Any of the short-listed options would be subject to detailed and specific design in subsequent stages of Project.

A proposed construction methodology (again detailing a broad feasible construction programme and works for the purpose of assessment) is described in the Constructability Report (2017). Some aspects of this construction report considered key to understanding the potential social impacts, are listed below.

1.2 Parker Road North and South Options

- A construction period of between 3 and 3.5 years is expected (approximately 3¼ years for Parker Road North and approximately 3½ years for Parker Road South). However, the potential for this to be extended (for trenching) is highlighted below.
- Trenching along Parker Road will be required for installation of a new watermain (to take treated water from the WTP). This is required for both Parker Road North and South and the route of the watermain extends from the proposed sites north on Parker Road and on West Coast Road);
- It is understood from the traffic impacts that the construction on Parker Road for the watermain to the WTP may need to occur sequentially with the construction of the WTP on the site (increasing the period of construction to approximately 5 years, albeit that the nature of construction would be different (shifting from site work to road work).
- To enable construction of the watermain and for construction traffic access to the WTP, traffic management on Parker Road is anticipated. This may include:
 - Maintenance of a live lane for resident access over construction. It is anticipated this will need to be used intermittently by construction vehicles during the pipe laying and backfilling processes (watermain construction); and
 - The contractor will need to actively manage traffic with onsite traffic management solutions (TMS) operational for much of the time to regulate truck movements on Parker Road (e.g. to avoid trucks in opposing directions needing to cross on the single live lane sections on Parker Road). Depending on the type of TMS used, this may also require identification and management of 'truck lay-by' areas or similar.
 - At least two sections of Parker Road will need to be widened within the existing road corridor to provide sufficient space for pipe installation.
- The construction and trenching in West Coast Road (common to all options) is likely to be disruptive for all users of that Road and for land uses adjoining the road. The impacts of this are likely to be for approximately 6 months.

1.3 Manuka Road Option

- An approximate construction period of 4 years is expected.
- The installation of 1200mm-1500mm diameter raw watermain along Woodlands Park Road (by trenching) is required. Works for this extension of the raw watermain are expected to be in the order of 3 months.
- The installation of the treated watermain is also required on Woodlands Park Road down Shetland Street, Philip Avenue and Glengarry Road before running down West Coast Road. This construction would be expected to be between 3 and 6 months (to West Coast Road).
- It is expected that Woodlands Park Road may be closed to a single traffic lane during the trenching, but that some form of access will be needed into Manuka Road for residents.
- It is expected (for the purpose of assessment) that the two pipelines (the treated watermain and raw watermain) would be installed in sequence rather than in parallel.
- The construction and trenching in West Coast Road (common to all options) is likely to be disruptive for all users of that Road and for land uses adjoining the road. The impacts of this are likely to be for approximately 6 months.

1.4 Replacement Option

- A construction period of approximately 3½ years is expected.
- The construction of a treated watermain utilising trenching. The treated watermain will pass down Shetland Street, Philip Avenue and Glengarry Road before running down West Coast Road. This construction would be expected to be between 3 and 6 months (to West Coast Road).
- The construction of a treated water tunnel will be determined by the contractor but it is envisaged that a tunnel boring machine will be used and no trenching will be necessary.
- The construction and trenching in West Coast Road (common to all options) is likely to be disruptive for all users of that Road and for land uses adjoining the road. The impacts of this are likely to be for approximately 6 months.

2 Methodology for SIA

2.1 Social Impact Assessment Framework

Social Impact Assessment (SIA) is the most common framework used in New Zealand and internationally to analyse, monitor and manage the potential social consequences of development. This SIA is intended to assist decision makers in the choice of the WTP option (site) and to inform subsequent design and resource management processes.

This Report utilises the seven social impact matters described in the International Association of Impact Assessment guidelines (described in full in the SIA). The SIA process has taken these matters to consider the potential social impacts of the WTP, on the basis of the existing community, the nature of the proposed works, and the consequential social changes anticipated.

2.2 Methodology Overview

The methodology undertaken for this SIA is summarised as:

- Step 1 – **Scoping and contextualisation** – obtaining an understanding of what is proposed, geographical areas and the demographic context;
- Step 2 – **Information gathering** – demographic analysis, including profiling the community and community change over time, and input from community and stakeholders through interview processes, and review of social impact monitoring of other projects (e.g. projects of similar scale and land use change or of construction)
- Step 3 – **Assessment of social impacts** – utilising the information obtained in steps 1 and 2, the assessment of impacts is undertaken to determine the scale, extent, distribution and duration of potential social impacts
- Step 5 – **Potential mitigation** – examples include management plans, communication strategies and potential monitoring.

2.3 Preparation of the Report

The preparation of the SIA has sourced information from:

- Review of the plans and constructability assessment to provide scoping and context for the four short-listed options.
- Review of district and local plans, strategies and legislation which explain the particular characteristics of Western Auckland where all four short-listed options are located;
- Review of Statistics New Zealand data for the areas of Titirangi and Oratia;
- Review of other social impact assessments and particularly monitoring reports for social impacts;

- Various sites visits of all four sites from January-April 2017;
- Consultation with key stakeholders in the community including school Principals, real estate agents and business owners;
- Face-to-face and phone interviews with members of the Oratia community (for Parker Road North and South options) and Titirangi community (for the Manuka Road Option and Replacement Option). Over 50 interviews were undertaken (with over 150 people participating in these interviews);
- Attendance at the community meetings in Oratia and Titirangi (1 of each) and review of online video recordings of the two further community meetings in Oratia; and
- Review of emails and written communications and social media provided by people in respect of the Project and the four options being considered by Watercare¹.

3 Existing Environment

Below is a summary of information collated on the existing environments of the short-listed options, the full report provides a more detailed assessment of demographic information/geographic extent, key locations and social infrastructure, housing and subdivision, businesses, history and sense of place values, quality of environment, community political and social connections, interview responses and social media and public action process.

This SIA established a Project Study Area (Study Area) for the purposes of profiling the existing environment and for assessing local social impacts associated with the Project. This is broken up into two community areas based on the locality of the four short-listed options. Further discussion on the nature and extent of these community areas is provided in the SIA report. For the purpose of profiling the community demographics, the following Census Area Units² (CAU) are referred to:

Community Area	Short-list Options
Oratia - this includes portions of the CAUs of Oratia, Otimai and Oratia West	<ul style="list-style-type: none"> ■ Parker Road North Option ■ Park Road South Option
Titirangi – this includes portions of the CAUs of Kaurilands, Crum Park, Titirangi South, Konini and Waima.	<ul style="list-style-type: none"> ■ Manuka Road Option ■ Replacement Option

¹ While there has been substantial email communication on the Project, it is noted that some caution is needed in considering the commentary in these communications, given uncertainty on people's understanding of the scale and nature of the Project (e.g. reference is made in some to 100's of people being required to move for Options and concerns have been expressed regarding the chemical processes of the Plant but with little information on the specifics or nature of these concerns). This is discussed in more detail in the evaluation of impacts in the SIA report.

² Census Area Units are named and mapped spatial areas identified by Statistics New Zealand for the purpose of the Census and for compiling and providing demographic and statistical information collected and forecast from Census data. It is noted that the 'portion of CAUs' refers to analysis taken at a Meshblock level from the Census data (the smallest unit of data collation provided by Statistics New Zealand). This more fine-grained analysis has been undertaken in acknowledgement of the geographic boundaries of 'community' as identified through the SIA investigation (particularly resident and stakeholder interviews).

Figures 1 and 4 below outline the geographical extent of the community areas that were identified for the purposes of assessing social impacts. It is acknowledged that the potential social impacts of the proposed short-listed options may extend geographically beyond the boundaries depicted in Figures 1 and 4 (e.g. some people who feel a close connection to and with the communities outlined above). These issues and impacts are discussed in more detail in the SIA Report. However, for the purposes of completing the social assessment it is considered important to have an understanding of the geographical extent of the 'impacted communities' of Titirangi and Oratia (for example to assess the relative scale and nature of impacts being experienced directly by part of that 'community' and in respect of how absorptive the community might be to that scale of change).

This report summarises the assessment of the social impacts of the establishment of a WTP at each of the short-listed options. The key positive and negative social impacts cover three key phases for each locality including, planning, construction and operation and are assessed on a regional and local scale.

3.1 Description of Community – Oratia

The Oratia community (as defined by Figure 1) is comprised of approximately 3,000 people and is located at the foothills of the Waitakere Ranges between Sunnyvale and Waiatarua. Carter Road, Shaw Road and Parker Road are the three key roads in the community, described by some as the three 'branches' off West Coast Road which form 'the heart' or hum of the Oratia community area. It is noted that some 40% of the resident population is from these three roads (though there appears to be a greater number of residents between Parker and Carter Roads).

According to 2013 Census results, the median age in the defined area is 37 and median personal income is approximately \$33,000 (which is both slightly older and wealthier than the median age and personal income for Auckland residents overall (being 35 years and \$29,600 per annum respectively)).

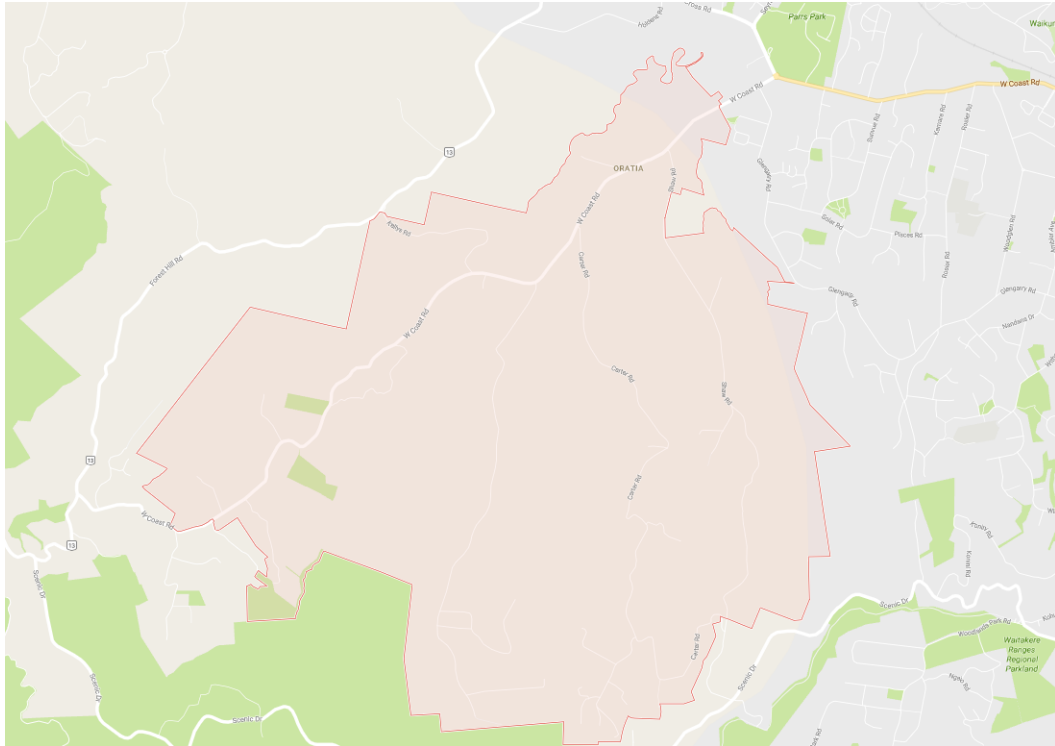


Figure 1 Approximate geographical extent of the “Oratia Community”

The community identifies themselves predominantly as European (NZ European) at approximately 85%, with some 10% as NZ Maori. This is similar to Auckland’s population for NZ Maori (at 11%) but significantly higher for European (59% for Auckland overall).

Although there is no central ‘village’ (in the traditional geographic sense), the community congregates in a number of key locations in the community including the Oratia Settlers Hall, the Oratia Combined Church, Landsend and at Oratia District School (which particularly resonated with those who participated in Social Impact Assessment Interviews as one of the key hubs of the community). Lots of people shopped locally at Oratia Superette (the dairy), Nola’s Orchard and at Dragicevich’s Orchard Fresh Shop. The School is well attended by local school-age residents and has a stable roll and teaching environment.

Most people tend to own their own house and very few houses are rented. From our stakeholder holder interviews and property sales data, there is a stable housing tenure. Very few houses come up for sale in Oratia and it is considered a sought after area in which to buy. In the last 12 months (April 2016 to Jan 2017 inclusive), sales in the area totalled 21 (real estate sales). Over this period, none of these sales were in Parker Road. The sale price for properties in Oratia was also slightly higher than the Auckland averages (in excess of \$1M for median).

Due to restrictions in the District Plan and Waitakere Ranges Heritage Area Act 2008 (and now the Unitary Plan) the rate of subdivision and new built development is low. There have been two notable subdivisions, one at 152 Parker Road (impacted by Parker Road South) and the other at 130 Parker Road (currently undeveloped). It is noted that the development on sites in the subdivision has been staged over the last 10-years (with some dwellings on this subdivision still being built). As a result, most residents consider there has not been any or little significant change in built form in the Oratia over the past 10 years.

3.1.1 Oratia community values, social connections and cohesion

Figures 2 and 3 below provide a summary of key themes identified in the community interviews and social research for Community Values for Community Connectivity themes.



Figure 2: Community Values Summary - Oratia

There are many longstanding families which continue to live in Oratia, some on the same properties since the early 1900s (a more detailed description of these families is provided in the full SIA Report). These families tended to be orchardists or have been in the past. These 'older families' were identified as being key community members who provided community voice, initiated community development (e.g. the church) and led or supported community programmes, clubs etc. Descendants of these families continue to live in the area, in some instances on sections that have been subdivided over the years and still form a key part of the Oratia community. A number of residents also identified working on the land and raising their children on the land as important. It is noted that 'newer residents' identified below, tended to be more prevalent in Parker Road South (dominated by the newer subdivision at 152 Parker Road).

While there were many consistent themes between 'newer' and 'older' residents, 'newer' members to the community identified that they had moved to the area to enjoy the peace and tranquillity of the natural environment, in particular the proximity to the Waitakere Ranges, and in many instances were attracted to the area due to knowing about the close-knit community. Other themes identified by residents to encapsulate community values were friendliness, openness of the community, safety, stewardship of the land, self-sustaining lifestyle, family-friendly and neighbourhood-centric community.

The community values that are derived from the quality of the rural environment and many have made an active choice to raise their families in such an environment. The Oratia community values are summarised in Figure 3 and described as being able to see the stars at night due to the lack of

light pollution, have an abundance of fruit trees to pick fruit off, have clean rivers for the younger generation to live in and generally respects the environment.

The community is considered to be close knit with **strong community cohesion**. Examples and contributing factors include family connections, friendships, openness to newer members to the community, longstanding community members forming an integral part of the community and numerous organised events (such as the local school fundraiser and Christmas Picnic (just to name a few)). A high degree trust and interdependence between residents was identified, with people on Parker Road both knowing their neighbours personally, demonstrating strong and significant friendships and demonstrating reliance and interaction with one another (e.g. children who regularly play together and sharing of child-minding, parenting and work activities between families and residents on the Street).



Figure 3 Community Values Summary - Oratia

3.2 Description of Community - Titirangi

The Titirangi community identified in the SIA (through interviews and literature review information) is larger in extent and population compared to Oratia. It is located approximately 13 kilometres to the south west of central Auckland and is at the southern end of the Waitakere Ranges. It is considered to be one of the gateways to the Waitakere Ranges.

In contrast to the Oratia community, the area identified in the SIA for Titirangi is larger, with approximately 16,000 people area living in the area defined in Figure 4 (as at 2103). The 2013 Census identified the median age in Titirangi at 38 years and median personal income is approximately \$41,000 (again both slightly older and wealthier when compared to Auckland residents overall (being 35 years and \$29,600 per annum respectively)). It is observed that in the

last 5-10 years younger families have moved into the area (reducing the median age). From the 2006-2016 the population increased in Titirangi by approximately 4-5%.



Figure 4 Geographical Extent of the Titirangi Community

Physically, Titirangi is characterised by houses being ‘nestled’ in the native bush of the Waitakere ranges (with high degrees of privacy between properties). Accessibility to and through the Titirangi area is via a number of feeder roads (with some disconnection between these due to topography) but also with pedestrian connections and accessible through numerous walking tracks and public bush areas. As a result, there are also sub-community areas identified. Relevant to the WTP options being considered, this includes the Waima and / or the Woodlands Park Road area (which includes Woodlands Park School).

Given this geographic pattern the Titirangi Village centre (location of Titirangi is depicted in Figure 3) it is still identified to be the main hub of the community with restaurants, community facilities cafes, doctors, dentists, and numerous other facilities. However, some people live quite a distance from this centre. People do indicate that they walk from their houses to the Village and traffic congestion appears to be an issue, particularly during peak commuter hours. In Woodlands Park the Superette serves the local community (south of Woodlands Park School, on Huia Road).



Figure 5 Location of Titirangi Village

There are a number of schools in the Titirangi area. These include Titirangi Primary School which is nearest to the Village, Woodlands Park School which is further to the West near Waima, Titirangi Rudolph Steiner School and Laingholm Primary School which is furthest to the south-west. The schools in the area are well attended by children from the local area and have, commensurate with the growth in school-aged children, experienced recent roll growth.

The existing plant is located on Woodlands Park Road and is approximately 1.5 kilometres from Titirangi Village. The Manuka Road Option is located on the other side of Manuka Road. Figure 4 below shows the approximate locations of these two options.

The existing WTP has been located in Huia since 1928 and is the third largest WTP in Auckland. The existing WTP is identified as 'an established' part of the community and the interviews with residents indicate it does not appear to affect how the Titirangi community carry out their lives every day (though it is noted that the uncertainty related to the Project is raising issues and awareness of the existing plant).

3.2.1 Titirangi community values, social connections and community cohesion

Figures 6 and 7 below provide a summary of key themes identified in the community interviews and social research for Community Values for Community Connectivity themes.



Figure 6: Community Values Summary - Titirangi

Commonly identified community values include respect and enjoyment of the environment, in particular the native bush in the Waitakere Ranges. The community readily uses the abundance of walking tracks throughout the area and expressed that this was an important aspect of 'getting away' from the city life. Many people had moved from other parts of Auckland to be nearer to the beaches and the native bush for a more peaceful lifestyle, particularly to raise children.

The community is considered to be friendly, engaged and active with numerous events happening in the village and within the 'neighbourhoods' of Titirangi such as Waima, Laingholm, and Huia etc. The schools are identified as community hubs for each of the surrounding neighbourhoods and are a central meeting point for many parents to form connections and friendships. Many parents walk or cycle with their children to school and parents encourage this.

The area is known for its support of the arts. The community organise annual events throughout the area and the area is home to the historic Lopdell House which is a regional art gallery focusing on contemporary art.

The community is considered to have a high degree of shared identify, particularly related to the natural environment. There is evidence of **moderate (to moderate / high) community cohesion**. This includes identification of the following factors friendships in the local area, and some awareness / familiarity of people in the community, longstanding community members, participation in community activities, particularly around community facilities such as the schools. There is also the value of privacy and 'nature as your neighbour' for residents (which may be a deterrent for some connectivity).

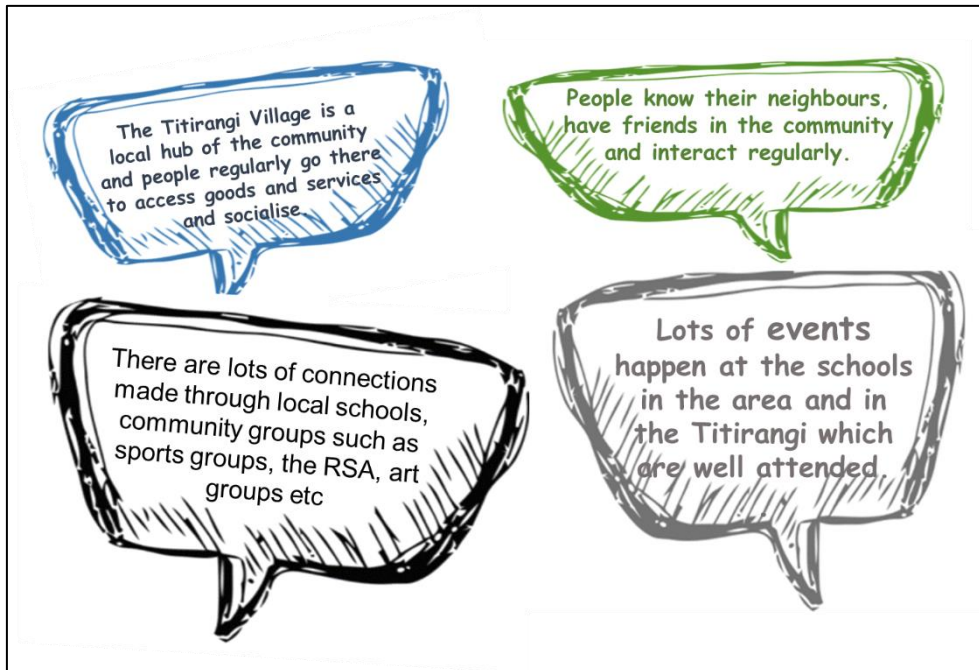


Figure 7: Community Connections Summary - Titirangi

4 Social Impact Assessment

4.1 Potential Regional Social Impacts

The potential Regional impact during construction and operation of the proposed short-listed options are considered to be the same for all four WTP site options and are not assessed further in the SIA. The potential regional social benefits / impacts are:

- An increase in resilience in the potable water supply network - due to the establishment of a new water treatment facility that is able to treat a greater amount of water. The existing WTP is near to the end of its operational life and needs to be replaced.
- Facilitation of the ongoing population growth in Auckland, with increased supply and reliability of supply in quality treated water supply for West Auckland

It is noted that most people who were interviewed for the SIA, acknowledged that a new WTP was needed in Auckland and there was benefit in having more and reliable potable water supplied to residents.

As noted earlier, there are some potential social issues associated with the Replacement Option for the WTP, including:

- The potential for reduced water supply resilience in the Auckland network whilst the WTP is rebuilt (as the site cannot keep treating water at the same time as the plant is being built);
- Potential impacts associated with higher capital costs (if interim supply solutions are required); and
- Ongoing cost burdens for the residents of Auckland as a result of either bringing forward supply options to enable sequential decommissioning of the existing site to enable reconstruction on the current site, or of providing 'interim' supply measures.

While these benefits and potential dis-benefits are noted, no further assessment is undertaken at this stage (given the limited information available). This limitation of the assessment is noted in Section 1 of this report.

4.2 Potential Local Social Impacts

There are a number of potential social impacts from the proposed WTPs which have been identified in the SIA. On the basis that the SIA has been prepared to assist decision makers to understand the relative social impacts of the four-short listed options, each potential social impact has been analysed and compared for the four options. The impact assessment considers:

- Impacts on way of life;
- Impacts on community cohesion;
- Impacts on sustaining one's self;
- Impacts on the quality of the environment; and
- Impacts on political structures, processes and democracy (common evaluation for all options).

A brief description of the social impacts, in the two community contexts (Oratia and Titirangi) are described in the table below in relation to the top four impacts in the list above. As impacts on political structures, processes and democracy is considered for all options collectively it is not included below (see section 4.2.5 below) A more detailed description is provided in Section 4 'Profile of Communities' of the full report. This table is not intended to fully describe these ideas in each of the community but instead highlight key aspects.

Social Impact Theoretical Description	Oratia	Titirangi
Impacts on way of life: Live, work, play and interact with one another on a day-to-day basis.	People shop locally down at Nolas, the local dairy or the Dragicevich's Orchard Fresh Shop. For more substantial shops and to access the hairdressers, doctors etc. the community tends to go neighbouring suburbs. People interact and socialise regularly at Oratia District School, down at the local shops, at each other's houses and through community organisations and events. People know their neighbours well, look out for one another and feel safe in their community. Many children on Parker Road are close friends and regularly go to each other's houses to play.	The community utilise Titirangi Village to obtain goods and services and it is a common spot for socialising due to the number of café and restaurants. The community enjoys living within the native bush environment and the abundance of walking tracks throughout the area are used regularly. Lots of events happen throughout the area in Titirangi Village. Many people commute to the city or neighbouring suburbs for work.
Community Cohesion: The stability, overall cohesion, character and the access to community services and facilities. -	The Oratia community is considered to be close knit with strong (high / very high) community cohesion. Examples and contributing factors include family connections, friendships, openness to newer member, key longstanding community members being a	The community is considered to have a high degree of shared identity, particularly in relation to protecting the natural environment. There is evidence of moderate to high community cohesion. The community is considered to be friendly,

Social Impact Theoretical Description	Oratia	Titirangi
	significant part of the community and lots of organised events which many people in the community attend and organise. Oratia District School and other community facilities are considered to be key hubs of the community. Parker Road is considered to be the 'central nuclei' of the community.	engaged and active with numerous events happening in the village within the neighbourhoods (such as Waima and Woodlands Park). The two Primary Schools in the area (Woodlands Park School and Titirangi Primary) are key hubs of the community with high local attendance and strong parental support
Sustaining one's self: Whether people will be economically disadvantaged from business disruption due to the proposal (note the disruption is specific to the operation of businesses and is not associated with the economic value of housing (unless that value somehow contributes to the operation of the business)).	There are a number of businesses on Parker Road (Landsend, feijoa orchard, childcare centre etc.) and a number of people have an office where they partially run their business from. The majority of residents appear to provide economically for jobs that are located elsewhere (e.g. the City) or are based from home, but the work is completed elsewhere (e.g. service businesses operated from home but undertaken elsewhere).	Most people appear to work in the city or in and around the Titirangi/Waima area, but little evidence of people undertaking home-based businesses.
Quality of the environment: The quality of the air and water people use; availability and quality of the food that they eat, the level of hazard of risk, dust and noise they are exposed to; the adequacy of sanitation, their physical safety, and their access to and control over resources.	The community values the rural natural environment which makes up a large part of Oratia. In particular, the peacefulness, the lack of noise and light pollution and the access to food grown from the land. Many community members are keen gardeners and the community consider themselves to be guardians of the natural environment. This guardianship in some instances has passed down generations as family members have lived in the area, or on the same piece of land, for multiple generations.	The community feel a close connection and sense of guardianship over the Waitakere Ranges and consider the community to be the gateway to the Ranges. This guardianship (or kaitiaki in Maori) extends to environmental stewardship in general over the natural environment. The community values the peace and quiet of the natural environment. People appear to have moved to the area to be closer to the natural environment (the bush and the west coast beaches).

The assessment of social impact is considered as either: **positive** or **negative** on the basis of whether the anticipated social consequences will either enhance or detract from the community values, social processes or social infrastructure identified in the Community Profile.

The scale of impact is identified as between very low (negligible), low, moderate, high or very high. This assessment is made on consideration of the assessed duration and scale of impact. Duration has been assessed as short, medium, or long / permanent duration. Scale is either small, moderate

or large (the scale is considered both in terms of absolute numbers and in terms of the proportion of the community).

Scale	Duration	Short or Temporary (up to 3 months)	Transitional (between 3 months and 1 year)	Long term or permanent (e.g. impacts expected for over a year or beyond construction)
Small (between 0 and 10% of the community)		Very Low / Negligible	Low	Moderate
Medium (a moderate amount of people, up to 50% of the community)		Low	Moderate	High
Large (widespread across the community, e.g. more than 50%)		Moderate	High	Very High

4.2.1 Potential impacts on way of life

For the purposes of this SIA, impacts on way of life have been assessed during the planning, construction, and operation phases. The table provides a summary of the assessed impact (without mitigation), followed by rational for the assessment. Below each assessment, potential measures for mitigation that **could** be implemented or are proposed. Given that there is no confirmation (at this stage) on what measures will be implemented, the assessment has not concluded on 'the social impacts with mitigation'. This is particularly noted given the nature of some mitigation measures proposed (e.g. timing and staging of construction works) and the uncertainty (at this stage) on the feasibility of these measures.

Option	During construction	During operation
Parker Road North	<p>Assessed as high negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> Disruption to peoples / community's way of life as people use Parker Road regularly to go to school, work go into the village etc.; and Smaller number but greater impact for others who run / operate businesses on the site and will limit ability to do this. <p>Other impacts include:</p> <ul style="list-style-type: none"> Disruption to people's leisure activities walkers / runners using the road; Disruption to interactions (e.g. people on the street dropping neighbours / neighbours children up/ off for school, gym, carpool); Disruption to social interactions (safety for pedestrians, particularly children) popping to neighbours Disruptions for those that use residents for work activities, including some where construction activities would be physical disruption (e.g. noise); Transitional loss of business activities on Parker Road given duration of construction works – this is potential loss of local employment opportunity but also for community facility in area (function facility); and The school bus route will be affected and there is a lot of community interaction on the road on a daily basis that will be impacted by construction traffic management measures. <p>Assessed as impacting all residents in Parker Road over period of construction (long term).</p>	<p>For those who have to leave the community and move to another house, and for those with family on Parker Road who are 'left', the way of life is assessed as very high negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> Inability or very low probability community could 'absorb' displaced community in the programmed timeframe for delivery of project (12+ families needing to relocate and 0 real estate house sales on Parker Road in 2016); Highly constrained housing market and limited housing choices elsewhere (by comparability) in Auckland housing market for 'similar' housing options; Loss of social interactions and interdependencies / support networks due to high degree of connections between impacted and surrounding residents and those displaced; High potential loss of business activities on Parker Road given duration of construction works – this is potential loss of local employment opportunity but also for community facility and connections for community in area (e.g. function facility and area local school children play in); Disruption to school and school community at scale of displaced community (may result in loss of funding for teaching resource in an otherwise very stable school roll); Disruptions to people's social and support arrangements including things such as child care arrangements, children being friends at school, being part of the same clubs etc.; and Potential disruption to service facilities (e.g. Superette and Nola's). At this stage of assessment, this is not considered high probability on basis of the number of people displaced relative to catchment for these services; but warrants specific assessment. <p>Assessed as a permanent impact, experienced by many properties on Parker Road (beyond directly affected from property loss).</p>
	<p>Potential Mitigation is considered difficult given the existing environment and roading network, potential measures include:</p> <ol style="list-style-type: none"> Construction management planning and community liaison – to provide mechanisms for community input to and liaison with construction teams for disruption impacts; Avoiding road disruptions in 'peak' periods (including avoiding construction traffic during school bus times, though this raises issue / impact of extending construction programme); Screening and management of construction works (assumes noise and construction timeframe controls would apply); and 	<p>Potential Mitigation is considered very difficult, potential measures include:</p> <ol style="list-style-type: none"> Staging construction to enable residents to remain within community (this might mean construction delays of up to 5 years). This mitigation option is complex as 'foreshadowing' of the loss of homes likely to have other social impacts in any case; Reducing property take through site reconfiguration and design (potential residual impacts, particularly quality of environment for residents outside reduced footprint); and <p>Consideration to be given to local road widening (again potential impacts on quality of environment and potentially direct physical impacts for other residents on Parker Road).</p>

Option	During construction	During operation
	4. Consideration to be given to local road widening (again potential impacts on quality of environment and potentially direct physical impacts for other residents on Parker Road).	
Parker Road South	<p>Assessed as high negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> Disruption to peoples / community's way of life as people use Parker Road regularly to go to school, work go into the village etc.; and Smaller number but greater impact for others who run / operate businesses on the site and will limit ability to do this. <p>Other impacts include:</p> <ul style="list-style-type: none"> Disruption to people's leisure activities walkers / runners using the road; Disruption to interactions (e.g. people on the street dropping neighbours / neighbours children up/ off for school, gym, carpool); Disruption to social interactions (safety for pedestrians, particularly children) popping to neighbours Transitional loss of business activities on Parker Road given duration of construction works – this is potential loss of local employment opportunity but also for community facility in area (function facility); and The school bus route will be affected and there is a lot of community interaction on the road on a daily basis that will be impacted by construction traffic management measures. <p>Assessed as impacting all residents in Parker Road over period of construction (medium to long term).</p>	<p>For those who have to leave the community and move to another house and for those with family on Parker Road who are 'left', the way of life is assessed as very high negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> Inability or very low probability community could 'absorb' displaced community in the programmed timeframe for delivery of project (12+ families needing to relocate and 0 real estate house sales on Parker Road in 2016). Consequential issue of friends and families needing to 'compete' for limited housing choices; Constrained housing market – some choices elsewhere in Auckland housing market for 'similar' housing options Loss of social interactions and interdependencies / support networks due to high degree of connections between impacted and surrounding residents and those displaced; Disruption to school and school community at scale of displaced community (may result in loss of funding for teaching resource in an otherwise very stable school roll). This is not considered a long-term impact but would disrupt the stable school roll; Disruptions to people's social and support arrangements including things such as child care arrangements, children being friends at school, being part of the same clubs etc.; and Potential disruption to service facilities (e.g. Superette and Nola's). At this stage of assessment, this is not considered high probability on basis of the number of people displaced relative to catchment for these services; but warrants specific assessment. Again not considered likely long-term impact. <p>Assessed as permanent or long-term impact (unless specifically noted), experienced by many properties on Parker Road (beyond directly affected from property loss).</p>
	<p>Potential Mitigation is considered difficult given the existing environment and roading network, potential measures include:</p> <ol style="list-style-type: none"> Construction management planning and community liaison – to provide mechanisms for community input to and liaison with construction teams for disruption impacts; Avoiding road disruptions in 'peak' periods (including avoiding construction traffic during school bus times, though this raises issue / impact of extending construction programme); Screening and management of construction works (assumes noise and construction timeframe controls would apply); Support for disrupted business operations on Parker Road; and Consideration to be given to local road widening (again potential impacts on quality of environment and potentially direct physical impacts for other residents on Parker Road). 	<p>Potential Mitigation is considered very difficult, potential measures include:</p> <ol style="list-style-type: none"> Staging construction to enable residents to remain within community (this might mean construction delays of up to 5 years). This mitigation option is complex as 'foreshadowing' of the loss of homes likely to have other social impacts in any case; Reducing property take through site reconfiguration and design (potential residual impacts, particularly quality of environment for residents outside reduced footprint); and <p>Consideration to be given to local road widening (again potential impacts on quality of environment and potentially direct physical impacts for other residents on Parker Road).</p>
Manuka Road	There is likely to be a moderate negative impact (high for some individual residents, but not at a community scale given that there is some alternative road access for many residents).	<p>There is likely to be a low negative impact.</p> <p>Impacts include:</p>

Option	During construction	During operation
	<p>Impacts include:</p> <ul style="list-style-type: none"> • Disruption to access for schools, property and to/from work, due to construction traffic and the trenching of Woodlands Park Road (e.g. ability to pop to shops and services); • Disruption to people's leisure activities walkers / runners using the road; and • Disruption to social interactions (safety for pedestrians, particularly children, popping to neighbours). 	<ul style="list-style-type: none"> • Experienced by neighbouring properties (though some set back) who live on Manuka Road; and • Disruption to those who used Clarks Bush for recreation and anticipated it was a protected as reserve.
	<p>Potential Mitigation considered feasible, potential measures include:</p> <ol style="list-style-type: none"> 1. Construction management planning and community liaison – to provide mechanisms for community input to and liaison with construction teams for disruption impacts; 2. Avoiding road disruptions in 'peak' periods (including avoiding construction traffic during school bus times, though this raises issue / impact of extending construction programme); and 3. Screening and management of construction works (assumes noise and construction timeframe controls would apply). 	<p>Potential Mitigation considered potentially feasible (depending on site size constraints), potential measures include:</p> <ol style="list-style-type: none"> 1. Buffering for residential properties – integrated with landscape and ecological management.
Replacement Option	<p>There is likely to be moderate negative impact (high for some individual residents, but not at community scale, also given that there is some alternative road access for many residents).</p> <p>Impacts include:</p> <ul style="list-style-type: none"> • Disruption to access for schools, property and to/from work, due to construction traffic and the trenching of Woodlands Park Road (e.g. ability to pop to shops and services); • Disruption to people's leisure activities walkers / runners using the road; and • Disruption to social interactions (safety for pedestrians, particularly children) popping to neighbours. 	<p>There is likely to be a negligible impact, acknowledging some concerns regarding the changes to the site from existing WTP (but that operational requirements / standards considered similar to or less impactful than current WTP site).</p>
	<p>Potential Mitigation considered feasible, potential measures include:</p> <ol style="list-style-type: none"> 1. Construction management planning and community liaison – to provide mechanisms for community input to and liaison with construction teams for disruption impacts; 2. Avoiding road disruptions in 'peak' periods (including avoiding construction traffic during school bus times, though this raises issue / impact of extending construction programme); and 3. Screening and management of construction works (assumes noise and construction timeframe controls would apply). 	<p>Not required.</p>

4.2.2 Potential impacts on community cohesion

For the purposes of this SIA, impacts on community cohesion have been assessed during the planning, construction and operation phases.

Option	During Planning Phase	During construction	During operation
Parker Road North	<p>Assessed as moderate positive and moderate negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> Galvanising existing community networks and strengthening awareness and connections between community (including trust and reliance / interdependencies); Stressful risking community tensions; Polarisation of Oratia and Titirangi communities; and Delays or deferment of other regular community activities and events (e.g. school fair) as a result of uncertainty of Project. 	<p>Note that the 'operation impacts' will be experienced during construction (but as long term impacts, assessed there).</p>	<p>Assessed as high / very high negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> Widespread disconnection across the community due to the removal of longstanding members of the community who form a significant part of community groups, organisations such as the school, church, and many others valued by the community; Disconnections between families for some with connections, particularly for those with strong family connections in the geographic area; Note potential impacts include 'further loss of community' if families move out of area to stay together (or if they move to change environment as a result of WTP). Not specifically assessed as not quantified – risk of impact noted; and Potential for residents who move to make new connections and enhance connectedness in new communities. Unquantified opportunity and not assessed and caution noted with level of investment people made in this community and fatigue at 'starting again'. <p>While community cohesion is strong (and therefore expected resilience should be higher), scale of impact (to size of community) is causing effect assessed here (in other words, the support networks that members of the community might usually rely on are also impacted / affected).</p>
	<p>Mitigation not relevant for this project.</p>		<p>Potential mitigation is considered very difficult, potential measures include:</p> <ol style="list-style-type: none"> Proactive community planning, social implementation management planning with specific measures development with community (if feasible).
Parker Road South	<p>Assessed as moderate positive and moderate negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> Galvanising existing community networks and strengthening awareness and connections between community (including trust and reliance / interdependencies); Stressful risking community tensions; Polarisation of Oratia and Titirangi communities; and Delays or deferment of other regular community activities and events (e.g. school fair). 	<p>Note that the 'operation impacts' will be experienced during construction (but as long term impacts, assessed there).</p>	<p>Assessed as high negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> Widespread disconnection across the community due to the removal of longstanding members of the community who form a significant part of community groups, organisations such as the school, church, and many others valued by the community; Some (but fewer compared to Parker Road South) disconnections between families for some with connections, particularly for those with strong family connections in the geographic area; and Potential for residents who move to make new connections and enhance connectedness in new communities. Unquantified opportunity and not assessed and caution noted with level of investment people made in this community and fatigue at 'starting again'. <p>While community cohesion is strong (and therefore expected resilience should be higher), scale of impact (to size of community) is causing greater significance of negative impact – as assessed here (in other words, the support networks that members of the community might usually rely on are also impacted / affected).</p>

Option	During Planning Phase	During construction	During operation
	Mitigation not relevant for this project.	Not relevant.	Potential mitigation measures (very difficult): 1. Proactive community planning, social implementation management planning with specific measures development with community (if feasible).
Manuka Road	Assessed as low positive and low negative impact . Impacts include: <ul style="list-style-type: none"> Galvanising some in the existing community and strengthening awareness and connections between community in Titirangi (Waima particularly); and Polarisation of Oratia and Titirangi communities. 		There is likely to be a very low / negligible impact , due to no loss of housing (assume people do not leave area as a result of WTP option). Impacts include: <ul style="list-style-type: none"> 'Further loss of community' if people choose to move out of area due to change in environment as a result of WTP. Not specifically assessed as not quantified, however given size of community and greater movement in housing market in this community considered unlikely to be impactful.
Replacement Option	Assessed as low positive and low negative impact . Impacts include: <ul style="list-style-type: none"> Galvanising some in the existing community and strengthening awareness and connections between community in Titirangi (Waima particularly); and Polarisation of Oratia and Titirangi communities. 		There is likely to be a very low / negligible impact , due to no loss of housing (assume people do not leave area as a result of WTP option).

4.2.3 Potential impacts on sustaining one's self

For the purposes of this SIA, impacts on sustaining one's self have been assessed during the construction and operation phase. What 'sustaining one's self' encapsulates is explained in greater detail in the Report. However, in general, it covers whether people will be economically disadvantaged from business disruption due to the proposal.

Option	During construction	During operation
Parker Road North	Assessed as very high negative impact . Impacts include: <ul style="list-style-type: none"> Disruption from construction on business such as Landsend, part of the feijoa orchard, other businesses operating from home such as potters, builders, electricians and others; Disruption to businesses who operate from 'car' but have part of business or supplies from property on Parker Road; and Loss of local food sources and resources people generate from their properties (identified as 'sustaining' people, if not from economic reliance from the associations they have with the place and the quality of the environment / place they live). Assessed as impacting on all residents (to very varying degrees) in Parker Road over period of construction (long term).	For those who have to leave the community and move to another house and for those with family on Parker Road who are 'left' the way of life is assessed as high negative impact (acknowledging very high for some individuals). Impacts include: <ul style="list-style-type: none"> Loss of businesses required by WTP: the childcare facility, feijoa business and orchard, some home based businesses. Assessed as permanent impact, experienced by many properties on Parker Road (beyond directly affected from property loss).

Option	During construction	During operation
	<p>Potential Mitigation is considered difficult due to the existing environment and roading network), potential measures include:</p> <ol style="list-style-type: none"> 1. Business continuity planning for those businesses disrupted (but not required) by the WTP option; and 2. Ongoing liaison with businesses over construction periods (maintaining reasonable service). 	<p>Potential Mitigation is considered very difficult.</p>
Parker Road South	<p>Assessed as high negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> • Disruption from construction on business such as Landsend, feijoa business, other businesses operating from home such as potters, builders, electricians and others; • Disruption to businesses who operate from 'car' but have part of business or supplies from property on Parker Road; and • Loss of local food sources and resources people generate from their properties (identified as 'sustaining' people, if not from economic reliance from the associations they have with the place and the quality of the environment / place they live). <p>Assessed as impacting on all residents (to very varying degrees) in Parker Road over period of construction (long term).</p>	<p>For those who have to leave the community and move to another house and for those with family on Parker Road who are 'left' the way of life is assessed as moderate negative impact (acknowledging very high for some individuals).</p> <p>Impacts include:</p> <ul style="list-style-type: none"> • Loss of home based businesses and mobile businesses; and • Assume Landsend and businesses disrupted on Parker Road during construction will be operational following construction – this may warrant specific business assessments.
	<p>Potential Mitigation is considered difficult given existing environment and roading network, potential measures include.</p> <ol style="list-style-type: none"> 1. Business continuity planning for those businesses disrupted (but not required) by the WTP option; and 2. Ongoing liaison with businesses over construction periods (maintaining reasonable service). 	<p>Potential Mitigation is considered very difficult.</p>
Manuka Road	<p>Assessed as likely to be low to very low negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> • Disruption to access for businesses using Woodlands Park Road (some detours available) and others (limited detours). 	<p>There is likely to be a negligible impact.</p>
	<p>Potential mitigation measures:</p> <ol style="list-style-type: none"> 1. Ongoing liaison with businesses over construction periods (maintaining reasonable service). 	
Replacement Option	<p>There is likely to be low to very low negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> • Disruption to access for businesses using Woodlands Park Road (some detours available) and others (limited detours). 	<p>There is likely to be a negligible impact.</p>
	<p>Potential mitigation measures:</p>	

Option	During construction	During operation
	1. Ongoing liaison with businesses over construction periods (maintaining reasonable service).	

4.2.4 Potential impacts on the quality of the environment

For the purposes of this SIA, impacts on the quality of the environment have been assessed during construction and operation and is limited to the values people have placed on the quality of their environment (it relies on the other specialists' assessments of physical environment impacts, including water, air, noise, visual/landscape and ecology).

Option	During construction	During operation
Parker Road North	<p>Assessed as high negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> Loss of tranquillity of environment in Parker Road; and Concerns about safety given traffic on Parker Road during construction. <i>Note permanent loss of environment features (discussed over column).</i> <p>Assessed as impacting all residents (to very varying degrees) in Parker Road over the construction period (long term). The most adversely impacted are those between the WTP site and West Coast Road.</p>	<p>Assessed as high negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> Loss of tranquillity of environment in Parker Road as a result of operation activities; Loss of heritage including heritage food sources (e.g. the trees, the remnant orchards, the bee population and environment to support these hives); Concerns about construction emission pollution –noise, and receiving environments. In particular the change between the existing environment and future environment (when construction is occurring) in respect of noise. While it is understood that 'permitted' noise limits can be complied with for the WTP, the very low night-time noise environment of the existing environment will still be changed; and Some concerns about safety of operation traffic on Parker Road (including chemicals delivery). Acknowledge that some impacts here are 'fears and perceptions' rather than physical changes to the environment (e.g. the risk of contamination spill likely to be very low for chemical deliveries). <p>Assessed as impacting all residents (to very varying degrees) in Parker Road, adverse impacts will be greatest for those immediately neighbouring or surrounding the proposed WTP site. Changes in traffic for those between the WTP and West Coast Road intersection.</p>
	<p>Potential Mitigation is considered effective, potential measures include:</p> <ol style="list-style-type: none"> Construction management planning and community liaison – to provide mechanisms for community input to and liaison with construction teams for disruption impacts; Active community communication and engagement in planning and construction; and Screening and management of construction works (assumes noise and construction timeframe controls would apply). 	<p>Potential Mitigation is considered effective measures include:</p> <ol style="list-style-type: none"> Screening ; Liaison and community engagement on issues and concerns; and Community led design in landscaping and other mitigation works.
Parker Road South	<p>Assessed as high negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> Loss of tranquillity of environment in Parker Road; and Concerns about safety given traffic on Parker Road during construction. <i>Note permanent loss of environment features (discussed over column).</i> 	<p>Assessed as high negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> Loss of tranquillity of environment in Parker Road as a result of operation activities; and Loss of ecological values in area (wetlands), impact on food sources (e.g. the trees, the remnant orchards, the bee population and environment to support these hives);

Option	During construction	During operation
	<p>Assessed as impacting all residents (to very varying degrees) in Parker Road over the construction phase (long term). Those most adversely impacted are those between the WTP site and West Coast Road.</p>	<ul style="list-style-type: none"> Concerns about construction emission pollution –noise, and receiving environments. In particular the change between the existing environment and future environment (when construction is occurring) in respect of noise. While it is understood that 'permitted' noise limits can be complied with for the WTP, the very low night-time noise environment of the existing environment will still be changed; and Some concerns about safety of operation traffic on Parker Road (including chemicals delivery). Acknowledge that some impacts here are 'fears and perceptions' rather than physical changes to the environment (e.g. the risk of contamination spill likely to be very low for chemical deliveries). <p>Assessed as impacting on all residents (to very varying degrees) in Parker Road but adverse impacts greatest for those immediately neighbouring or surrounding proposed WTP site. Changes in traffic for those between WTP and West Coast Road intersection.</p>
	<p>Potential Mitigation is considered effective, potential measures include:</p> <ol style="list-style-type: none"> Construction management planning and community liaison – to provide mechanisms for community input to and liaison with construction teams for disruption impacts; Active community communication and engagement in planning and construction; and Screening and management of construction works (assumes noise and construction timeframe controls would apply). 	<p>Potential Mitigation is considered effective, potential measures include:</p> <ol style="list-style-type: none"> Screening ; Liaison and community engagement on issues and concerns; and Community led design in landscaping and other mitigation works.
Manuka Road	<p>There is likely to be low negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> Concerns about construction emission pollution –noise, and receiving environments; and Concerns about safety for traffic on Woodlands Park Road during construction. <p>Assess as impacting on residents in neighbourhood (but to very varying degrees). Adverse impacts greatest for those immediately neighbouring or surrounding proposed WTP site.</p>	<p>There is likely to be a low negative impact (note proximity of existing plant likely to have similar or greater impacts compared to new facility).</p> <p>Impacts include:</p> <ul style="list-style-type: none"> Loss of tranquillity of environment as a result of operation activities (note proximity of existing plant likely to have similar or greater impacts compared to new facility); Loss of valued vegetation and ecological areas (permanent loss of features on the site, but some opportunity to mitigate by retaining some valued vegetation on site if feasible); Concerns about emission pollution – light, noise, receiving environments and safety for people and environment from these emissions (note concerns of post construction emissions likely greater than actual anticipated impacts, given existing noise environment and operation of existing WTP in vicinity of site); and Acknowledge that some impacts here are 'fears and perceptions' rather than physical changes to the environment (e.g. the risk of contamination spill likely to be very low for chemical deliveries). <p>Assessed as impacting on residents immediately neighbouring or surrounding proposed WTP site only (given existing WTP operating in neighbourhood).</p>
	<p>Potential Mitigation is considered effective, potential measures:</p> <ol style="list-style-type: none"> Construction management planning and community liaison – to provide mechanisms for community input to and liaison with construction teams for disruption impacts; Active community communication and engagement in planning and construction; and Screening and management of construction works (assumes noise and construction timeframe controls would apply). 	<p>Potential Mitigation is considered effective, potential measures:</p> <ol style="list-style-type: none"> Screening; Liaison and community engagement on issues and concerns; and Community led design in landscaping and other mitigation works.

Option	During construction	During operation
Replacement Option	<p>There is likely to be low negative impact.</p> <p>Impacts include:</p> <ul style="list-style-type: none"> Concerns about construction emission pollution –noise, and receiving environments; Concerns about safety for traffic on Woodlands Park Road during construction; and Management and interface of heritage values at the site. 	<p>There is likely to be a very low negative impact due to the existing plant at this locality, acknowledging that replacement site is larger.</p>
	<p>Potential Mitigation is considered effective, potential measures include:</p> <ol style="list-style-type: none"> Construction management planning and community liaison – to provide mechanisms for community input to and liaison with construction teams for disruption impacts; Active community communication and engagement in planning and construction; and Screening and management of construction works (assumes noise and construction timeframe controls would apply). 	

4.2.5 Potential Impacts on Political Structures and Democratic Processes

No specific assessment has been made comparatively between the WTP options. The assessed impacts of the planning process are considered to be **moderate negative impacts** for residents. This impact is assessed on the basis of community perceptions that there has been:

- Limited consultation and ‘after the event’ consultation. While some noted that residents in Titirangi had been advised of the options earlier than people in Oratia, this was limited and not the case for local residents in close proximity to the WTP site option (e.g. Manuka Road);
- Political interference and the risk of communities being ‘pitted against one another’; and
- Uncertainty on who is decision maker, timing and ability for people to contribute to or be heard in that decision making process.

Mitigation for those impacts already experienced is difficult, but ongoing open communication and active engagement with the community is put forward as mitigation for potential impacts as the project progresses. However, it also recognised that some of these impacts have occurred in the planning stage so are unable to be retrospectively mitigated.

5 Conclusion

This assessment has compared the potential social impacts of the four short-listed options for the replacement Huia WTP, during operation and construction of the plant. Comments on the social impacts of the planning process have also been made in respect of these options.

It is concluded that the potential social impacts during both construction and operation for the Parker Road options is likely to be very high to high due to impacts on way of life, community cohesion, sustaining one's self and to a lesser impact, quality of the environment.

Replacing the existing water treatment is likely to have lower social impacts during both construction and operation. The construction impacts are negative due to trenching required on local roads which is likely to impact on the community's way of life and the quality of the environment which they enjoy. However, due to the existing WTP being in the same locality, the impact during operation are generally low to very low (negligible).

For the Manuka Road option, the potential impacts during construction are likely to be moderate due to impacts on people's way of life and quality of the environment. There are some negative impacts during operation, particularly for people's way of life, however given the smaller number of people impacted, the nature of the community and accessibility for that community and the existence of a WTP in a similar location (as well as the fact that residential properties are not directly affected by the site options), these impacts are generally lower than for Parker Road. Negative impacts are associated with the potential loss of Clark Bush, which some community anticipated to be a reserve.

While mitigation measures are proposed, the assessment has not (at this stage) concluded residual impacts with mitigation in place, as it is uncertain which measures may be adopted by Watercare (and the viability of these measures). Following identification of a preferred site and development of specific management options for that site, it will be appropriate to assess the impacts of the Project with the management options and mitigation in place.

Document Acceptance

Action	Name	Signed	Date
Prepared by	Corinne Marti Planner and Amelia Linzey Senior Technical Director - Planning	 	11/05/2017
Reviewed by	Jenny Vince Senior Associate - Planning		11/5/2017
Revisions by	Jo Healy Planner		12/08/2017
Approved by	Amelia Linzey Senior Technical Director - Planning		11/08/2017
on behalf of	CH2M Beca Ltd		

