



Grey Lynn Tunnel

Watercare

Objectives and Policies Assessment

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Revision	Date	Description	By	Review	Approved
1	31/01/2018	Draft Issued to Watercare	T Hegarty A Tsang		
2	20/02/2019	Final for Lodgement	T Hegarty A Tsang		

CHAPTER B – REGIONAL POLICY STATEMENT			
Reference	Objective/Policy	Is the Proposal Consistent?	Comment
B2 – Urban Growth and Form			
Objective B2.2.1 Urban growth and form	<p>(1) A quality compact urban form that enables all of the following:</p> <ul style="list-style-type: none"> (a) a higher-quality urban environment; (b) greater productivity and economic growth; (c) better use of existing infrastructure and efficient provision of new infrastructure; (e) greater social and cultural vitality; (f) better maintenance of rural character and rural productivity; and (g) reduced adverse environmental effects. <p>(3) Sufficient development capacity and land supply is provided to accommodate residential, commercial, industrial growth and social facilities to support growth.</p>	Yes	<p>The Project is fundamental to the urban intensification of the Auckland Isthmus. By acting as a bypass of wastewater flows from the Orakei Main Sewer to the Central Interceptor, the Project will directly provide additional wastewater network capacity in the Orakei Main Sewer. This will subsequently provide a number of benefits to the community and local environment including a reduction in WWOs and infrastructure capacity to support planning urban intensification.</p> <p>In addition, the Project represents a prudent use of existing infrastructure given its role in the reorganisation of the metropolitan wastewater network and allowing the Orakei Main Sewer to support additional growth without the need for it to be upgraded itself.</p> <p>The completed Project will be largely underground, with a small number of structures and access points provided at a private property on Tawariki Street. This site will be screened and landscaped to maintain local amenity values.</p> <p>Lastly, Watercare will employ a range of measures during the Project’s construction to minimise impacts on residents. This has</p>

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			included the selection of the Tawariki Street site, which generates the least adverse effects of the five sites considered during optioning.
Objective B2.3.1 A quality built environment	<p>(1) A quality built environment where subdivision, use and development do all of the following:</p> <ul style="list-style-type: none"> (a) respond to the intrinsic qualities and physical characteristics of the site and area, including its setting; (c) contribute to a diverse mix of choice and opportunity for people and communities; (d) maximise resource and infrastructure efficiency; (e) are capable of adapting to changing needs; and (f) respond and adapt to the effects of climate change. <p>(2) Innovative design to address environmental effects is encouraged.</p> <p>(3) The health and safety of people and communities are promoted.</p>	Yes	<p>The proposed construction methodology of the Project is an appropriate response to the existing urban environment. Most of the Project will be excavated using a TBM, thereby avoiding any disruption to surface development and residents.</p> <p>It is also noted that the Tawariki Street site will be appropriately designed to integrate into the existing urban character of the Grey Lynn area.</p> <p>The Project also represents a smart form of infrastructure investment, delivering increased network capacity and improved environmental performance in an integrated and cost-efficient fashion with the investment underway with the CI. It is also future proved to enable additional environmental improvement within the Grey Lynn catchment This approach to network investment and management is an efficient means of providing a lifeline utility to the community, while also minimising community disruption and costs.</p>

<p>Policy B2.3.2 A quality built environment</p>	<p>(1) Manage the form and design of subdivision, use and development so that it does all of the following:</p> <ul style="list-style-type: none"> (a) supports the planned future environment, including its shape, landform, outlook, location and relationship to its surroundings, including landscape and heritage; (b) contributes to the safety of the site, street and neighbourhood; (d) achieves a high level of amenity and safety for pedestrians and cyclists; (e) meets the functional, and operational needs of the intended use; and (f) allows for change and enables innovative design and adaptive re-use. 	<p>Yes</p>	<p>The Project takes into consideration the adjacent land and zoning and Watercare will design the above ground infrastructure in a manner which maintains existing amenity values.</p> <p>The use of walls and boundary landscaping at the Tawariki Street will be designed to soften the appearance of the permanent about ground infrastructure, while ensuring that the site meets health and safety requirements.</p> <p>The provision of space for the second shaft allows for future network connections, while the proposed design will ensure that noise and odour effects from the operation of the Project are minimised and are no different from those currently generated by existing assets.</p> <p>Furthermore, there is a functional requirement for the Project's location, given the need to connect to the CI, the Orakei Main Sewer and the local network. In addition, the Project needs to be located in the local area in order to deliver both a reduction in WWOs, as well as support the intensification of the Isthmus. The assessment of alternatives, as undertaken by Watercare, highlights the appropriateness of the shaft site location, including the ease of access of the site to existing network assets.</p>
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B3 – Infrastructure, Transport and Energy			
Objective B3.2.1 Infrastructure	<p>(1) Infrastructure is resilient, efficient and effective.</p> <p>(2) The benefits of infrastructure are recognised, including:</p> <ul style="list-style-type: none"> (a) providing essential services for the functioning of communities, businesses and industries within and beyond Auckland; (b) enabling economic growth; (c) contributing to the economy of Auckland and New Zealand; (d) providing for public health, safety and the well-being of people and communities; (e) protecting the quality of the natural environment; <p>(3) Development, operation, maintenance, and upgrading of infrastructure is enabled, while managing adverse effects on:</p> <ul style="list-style-type: none"> (a) the quality of the environment and, in particular, natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character; (b) the health and safety of communities and amenity values. <p>(4) The functional and operational needs of infrastructure are recognised.</p> <p>(5) Infrastructure planning and land use planning are integrated to service growth efficiently.</p> <p>(8) The adverse effects of infrastructure are avoided, remedied or mitigated.</p>	Yes	<p>The Project is a vital infrastructure investment for the Auckland Isthmus, delivering increased network capacity and helping reduce the frequency of WWOs into local watercourses and the Waitemata Harbour.</p> <p>There is also a functional need for the Project to located in the chosen locations given the presence of existing infrastructure, the current capacity of that infrastructure, the need to support the growth of the community and a desire to improve the environmental performance of the metropolitan network. The appropriateness of the Project location has been confirmed through an assessment of alternatives process, while Watercare have also proposed numerous measures to minimise and mitigate the adverse effects of the Project.</p> <p>As such, the Project supports the economic wellbeing of Auckland, protects the health and safety of the community and provides for restoration of the natural environment.</p> <p>The Project is also integrated with other investments in the metropolitan wastewater network, ensuring that it is an efficient use of infrastructure funding and contributes to the</p>

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Policy B3.2.2 Infrastructure	<p>(1) Enable the efficient development, operation, maintenance and upgrading of infrastructure.</p> <p>(2) Recognise the value of investment in existing infrastructure.</p> <p>(3) Provide for the locational requirements of infrastructure by recognising that it can have a functional or operational need to be located in areas with natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character.</p> <p>(6) Enable the development, operation, maintenance and upgrading of infrastructure in areas with natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character while ensuring that the adverse effects on the values of such areas are avoided where practicable or otherwise remedied or mitigated.</p> <p>(8) Avoid, remedy or mitigate the adverse effects from the construction, operation, maintenance or repair of infrastructure.</p>	Yes	<p>long-term objectives sought for the wider network.</p> <p>Lastly, the Project has been designed and sited to avoid significant adverse effects on the environment. This includes avoiding undertaking works in public reserves and minimising the scale of land disturbance required to provide added network capacity. The Tawariki Street site will be designed to maintain local amenity values, while the effects of its construction can be readily managed using standard construction practices.</p>
B6 – Mana Whenua			
Objective B6.2.1 Recognition of Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation	<p>(1) The principles of the Treaty of Waitangi/Te Tiriti o Waitangi are recognised and provided for in the sustainable management of natural and physical resources including ancestral lands, water, air, coastal sites, wāhi tapu and other taonga.</p> <p>(2) The principles of the Treaty of Waitangi/Te Tiriti o Waitangi are recognised through Mana Whenua participation in resource management processes.</p>	Yes	<p>The Project reduces wastewater overflows and will improve the water quality of the Grey Lynn catchment.</p> <p>The Project includes on-going engagement and consultation with iwi and provides for the on-going opportunity for mana whenua to participate in the design and consenting</p>

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Policy B6.2.2 Recognition of Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation	<p>(1) Provide opportunities for Mana Whenua to actively participate in the sustainable management of natural and physical resources including ancestral lands, water, sites, wāhi tapu and other taonga in a way that does all of the following:</p> <p>(a) recognises the role of Mana Whenua as kaitiaki and provides for the practical expression of kaitiakitanga;</p> <p>(b) builds and maintains partnerships and relationships with iwi authorities;</p> <p>(c) provides for timely, effective and meaningful engagement with Mana Whenua at appropriate stages in the resource management process, including development of resource management policies and plans;</p> <p>(d) recognises the role of kaumātua and pūkenga;</p> <p>(e) recognises Mana Whenua as specialists in the tikanga of their hapū or iwi and as being best placed to convey their relationship with their ancestral lands, water, sites, wāhi tapu and other taonga;</p> <p>(f) acknowledges historical circumstances and impacts on resource needs;</p> <p>(g) recognises and provides for mātauranga and tikanga; and</p> <p>(h) recognises the role and rights of whānau and hapū to speak and act on matters that affect them.</p>	Yes	<p>process. This engagement has concluded Watercare’s Kaitiaki Forum. This forum involves contacting of all 19-mana whenua in the Auckland region.</p> <p>Following initial contact with mana whenua, four groups expressed an interested in the project: Te Rūnanga o Ngāti Whātua, Te Kawerau ā Maki, Ngāti Whātua Ōrākei and Ngāti Maru. Information was provided by e-mail to them and this was followed up by a presentation by Watercare to the forum in August 2018 and a meeting with representatives of Ngāti Whātua Ōrākei. Watercare proposes to continue this engagement through future phases of the Project.</p>
Objective B6.3.1 Recognising Mana Whenua values	<p>(1) Mana Whenua values, mātauranga and tikanga are properly reflected and accorded sufficient weight in resource management decision-making.</p> <p>(2) The mauri of, and the relationship of Mana Whenua with, natural and physical resources including freshwater, geothermal resources, land, air and coastal resources are enhanced overall.</p> <p>(3) The relationship of Mana Whenua and their customs and traditions with natural and physical resources that have been scheduled in the</p>	Yes	<p>As previously discussed, the Project includes on-going engagement and consultation with Mana Whenua, allowing for the incorporation of mana whenua values into the design and development of the Project.</p> <p>Furthermore, the Project seeks to assist in community efforts to improve the mauri of freshwater resources in the Auckland urban</p>

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	Unitary Plan in relation to natural heritage, natural resources or historic heritage values is recognised and provided for.		area by reducing the frequency of WWOs into the Cox's Creek catchment.
Policy B6.3.2 Recognising Mana Whenua values	<p>(1) Enable Mana Whenua to identify their values associated with all of the following:</p> <ul style="list-style-type: none"> (a) ancestral lands, water, air, sites, wāhi tapu, and other taonga; (b) freshwater, including rivers, streams, aquifers, lakes, wetlands, and associated values; (c) biodiversity; (d) historic heritage places and areas; and (e) air, geothermal and coastal resources. <p>(2) Integrate Mana Whenua values, mātauranga and tikanga:</p> <ul style="list-style-type: none"> (a) in the management of natural and physical resources within the ancestral rohe of Mana Whenua, including: <ul style="list-style-type: none"> (i) ancestral lands, water, sites, wāhi tapu and other taonga; (ii) biodiversity; and (iii) historic heritage places and areas. (b) in the management of freshwater and coastal resources, such as the use of rāhui to enhance ecosystem health; (c) in the development of innovative solutions to remedy the long-term adverse effects on historical, cultural and spiritual values from discharges to freshwater and coastal water; and (d) in resource management processes and decisions relating to freshwater, geothermal, land, air and coastal resources. <p>(3) Ensure that any assessment of environmental effects for an activity that may affect Mana Whenua values includes an appropriate assessment of adverse effects on those values.</p>	Yes	<p>In addition, the Project avoids the disturbance of any sites or places of significance to mana whenua, while an accidental discovery protocol will be employed during bulk earthworks.</p> <p>Lastly, the AEE has taken into regard mana whenua values. This includes a summary of these effects in Section 6.6 and details regarding mana whenua engagement in Section 7.3.</p>

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	<p>(4) Provide opportunities for Mana Whenua to be involved in the integrated management of natural and physical resources in ways that do all of the following:</p> <ul style="list-style-type: none"> (a) recognise the holistic nature of the Mana Whenua world view; (b) recognise any protected customary right in accordance with the Marine and Coastal Area (Takutai Moana) Act 2011; and (c) restore or enhance the mauri of freshwater and coastal ecosystems. <p>(6) Require resource management decisions to have particular regard to potential impacts on all of the following:</p> <ul style="list-style-type: none"> (a) the holistic nature of the Mana Whenua (b) the exercise of kaitiakitanga; (c) mauri, particularly in relation to freshwater and coastal resources; (d) customary activities, including mahinga kai; (e) sites and areas with significant spiritual or cultural heritage value to Mana Whenua; 		
B7 – Natural Resources			
Objective B7.3.1 Freshwater system	(3) The adverse effects of changes in land use on freshwater are avoided, remedied or mitigated.	Yes	<p>As previously discussed, the Project is critical to the delivery of a metropolitan wastewater network which both supports the planned growth of Auckland and the improvement of wider environmental values. By diverting flows from the Orakei Main Sewer to the CI, the Project allows for the intensification of the Isthmus while also reducing the frequency of WWOs.</p> <p>As such, the Project will provide both increased network capacity and reduced frequency in overflows which will assist</p>
Policy B7.3.2 Freshwater system	<p>(1) Integrate the management of subdivision, use and development and freshwater systems by undertaking all of the following:</p> <ul style="list-style-type: none"> (a) ensuring water supply, stormwater and wastewater infrastructure is adequately provided for in areas of new growth or intensification; (c) controlling the use of land and discharges to minimise the adverse effects of runoff on freshwater systems and progressively reduce existing adverse effects where those systems or water are degraded; and (d) avoiding development where it will significantly increase adverse effects on freshwater systems, unless these adverse effects can be adequately mitigated. 	Yes	

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			<p>Auckland Council's and community efforts to improve the water quality of urban watercourses.</p> <p>In addition, the Project represents the integrated management of water resources, with the improvement management of wastewater flows, as well as supporting the wellbeing of local natural freshwater systems.</p>
Objective B7.5.1 Air	<p>(1) The discharge of contaminants to air from use and development is managed to improve region-wide air quality, enhance amenity values in urban areas and to maintain air quality at appropriate levels in rural and coastal areas.</p> <p>(2) Industry and infrastructure are enabled by providing for reduced ambient air quality amenity in appropriate locations.</p> <p>(3) Avoid, remedy or mitigate adverse effects from discharges of contaminants to air for the purpose of protecting human health, property and the environment.</p>	Yes	<p>Any potential adverse effects resulting from the discharge of contaminants to air during the construction phase of the Project will be managed accordingly, including the potential for dust arising from bulk earthworks.</p> <p>Modelling undertaken for the Project also demonstrates that the operation of the shaft site will not generate any significant air quality effects or limit the ability for surrounding sites to be developed for residential or other sensitive land use activities.</p>
Policy B7.5.2 Air	<p>(1) Manage discharge of contaminants to air from use and development to:</p> <p>(a) avoid significant adverse effects on human health and reduce exposure to adverse air discharges;</p> <p>(b) control activities that use or discharge noxious or dangerous substances;</p> <p>(c) minimise reverse sensitivity effects by avoiding or mitigating potential land use conflict between activities that discharge to air and activities that are sensitive to air discharges;</p>	Yes	<p>In addition, the shaft site is future proofed to provide an 8m high vent stack, should any odour issues arise following the commissioning of the Project.</p>

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	(d) protect activities that are sensitive to the adverse effects of air discharges; (e) protect flora and fauna from the adverse effects of air discharges		
B10 – Environmental Risk			
Objective B10.4.1 Land – contaminated	(1) Human health and the quality of air, land and water resources are protected by the identification, management and remediation of land that is contaminated.	Yes	Any contaminated land discovered during the works will be remediated with any associated potential adverse effects managed in accordance with the AUP’s discovery protocols.
Policy B10.4.2 Land – contaminated	(3) Manage or remediate land that is contaminated where: (a) the level of contamination renders the land unsuitable for its existing or proposed use; or (b) the discharge of contaminants from the land is generating or is likely to generate significant adverse effects on the environment; or (c) development or subdivision of land is proposed	Yes	

CHAPTER E – AUCKLAND WIDE			
Reference	Objective/Policy	Is the Proposal Consistent?	Comment
E1 – Water Quality and Integrated Management			
Objectives E1.2	<p>(1) Freshwater and sediment quality is maintained where it is excellent or good and progressively improved over time in degraded areas.</p> <p>(2) The mauri of freshwater is maintained or progressively improved over time to enable traditional and cultural use of this resource by Mana Whenua.</p> <p>(3) Stormwater and wastewater networks are managed to protect public health and safety and to prevent or minimise adverse effects of contaminants on freshwater and coastal water quality.</p>	Yes	<p>Appropriate sediment and erosion controls will be implemented throughout the construction phase to ensure that freshwater quality within the catchment is maintained.</p> <p>The Project will also assist in the reduction of WWOs, thereby supporting the restoration of, and reducing the adverse effects of contaminants on, local watercourses and further protecting public health.</p>
E2 – Water Quantity, Allocation and Use			
Objective E2.2	<p>(1) Water in surface rivers and groundwater aquifers is available for use provided the natural values of water are maintained and established limits are not exceeded.</p> <p>(2) Water resources are managed within limits to meet current and future water needs for social, cultural and economic purposes.</p>	Yes	<p>The potential groundwater effects of the Project are assessed in detailed in the AEE. The natural values of water and availability of water resources will be maintained.</p> <p>No existing groundwater users will be affected, and no buildings or services are predicted to be adversely impacted by the potential settlements. No scheduled historic heritage places or sites and places of significance to Mana Whenua will be affected.</p>
Policy E2.3	<p>(23) Require proposals to divert groundwater, in addition to the matters addressed in Policy E2.3(6) and (7) above, to ensure that:</p> <p>(a) the proposal avoids, remedies or mitigates any adverse effects on:</p> <p>(i) scheduled historic heritage places and scheduled sites and places of significance to Mana Whenua; and</p> <p>(ii) people and communities.</p> <p>(b) the groundwater diversion does not cause or exacerbate any flooding;</p> <p>(c) monitoring has been incorporated where appropriate, including:</p> <p>(i) measurement and recording of water levels and pressures; and</p> <p>(ii) measurement and recording of the movement of ground, buildings and other structures.</p>	Yes	<p>In addition, Watercare proposes to undertake monitoring prior to, during and after construction of the Project. This will provide information to confirm that the</p>

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	(d) mitigation has been incorporated where appropriate including: (i) minimising the period where the excavation is open/unsealed; (ii) use of low permeability perimeter walls and floors; (iii) use of temporary and permanent systems to retain the excavation; or (iv) re-injection of water to maintain groundwater pressures.		magnitude of impact, if any, is no greater than predicted in the AEE.
E11 – Land Disturbance – Regional			
Objectives E11.2	(1) Land disturbance is undertaken in a manner that protects the safety of people and avoids, remedies and mitigates adverse effects on the environment. (2) Sediment generation from land disturbance is minimised.	Yes	The Project does not affect areas of natural or physical resources that have been scheduled in the AUP. The Project includes the implementation of an accidental discovery protocol and aims to maintain cultural and spiritual Mana Whenua values and preserve wāhi tapu, and kaimoana gathering when and where required.
Policies E11.3	(1) Avoid where practicable, and otherwise mitigate, or where appropriate, remedy adverse effects on areas where there are natural and physical resources that have been scheduled in the Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character (2) Manage land disturbance to: (a) retain soil and sediment on the land by the use of best practicable options for sediment and erosion control appropriate to the nature and scale of the activity; (b) manage the amount of land being disturbed at any one time, particularly where the soil type, topography and location is likely to result in increased sediment runoff or discharge; (c) avoid, remedy and mitigate adverse effects on accidentally discovered sensitive material; and (d) maintain the cultural and spiritual values of Mana Whenua in terms of land and water quality, preservation of wāhi tapu, and kaimoana gathering.	Yes	The Project will include the implementation of an appropriate ESCP to manage any potential adverse effects resulting from the discharge of sediment from the work area during construction. The ESCP will incorporate the requirements of GD05 to ensure any significant adverse effects are avoided and that sediment discharge is minimised to the extent practicable. Lastly, the geotechnical and vibration assessments have demonstrated that the Project will only have negligible effects on the stability of surrounding land and

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	<p>(3) Manage the impact on Mana Whenua cultural heritage that is discovered undertaking land disturbance by:</p> <ul style="list-style-type: none"> (a) requiring a protocol for the accidental discovery of kōiwi, archaeology and artefacts of Māori origin; (b) undertaking appropriate actions in accordance with mātauranga and tikanga Māori; and (c) undertaking appropriate measures to avoid adverse effects. Where adverse effects cannot be avoided, effects are remedied or mitigated. <p>(5) Design and implement earthworks with recognition of existing environmental site constraints and opportunities, specific engineering requirements, and implementation of integrated water principles.</p> <p>(6) Require that earthworks are designed and undertaken in a manner that ensures the stability and safety of surrounding land, buildings and structures.</p> <p>(7) Require any land disturbance that will likely result in the discharge of sediment laden water to a surface water body or to coastal water to demonstrate that sediment discharge has been minimised to the extent practicable, having regard to the quality of the environment; with:</p> <ul style="list-style-type: none"> (a) any significant adverse effects avoided, and other effects avoided, remedied or mitigated, particularly in areas where there is: <ul style="list-style-type: none"> (i) high recreational use; (ii) relevant initiatives by Mana Whenua, established under regulations relating to the conservation or management of fisheries, including taiāpure, rāhui or whakatupu areas; (iii) the collection of fish and shellfish for consumption; (iv) maintenance dredging; or 		<p>structures, while the use of GWMCP will ensure that building damage is avoided.</p>

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	(v) a downstream receiving environment that is sensitive to sediment accumulation; (b) adverse effects avoided as far as practicable within areas identified as sensitive because of their ecological values, including terrestrial, freshwater and coastal ecological values; and (c) the receiving environments ability to assimilate the discharged sediment being taken into account.		
E12 – Land Disturbance – District			
Objective E12.2	(1) Land disturbance is undertaken in a manner that protects the safety of people and avoids, remedies and mitigates adverse effects on the environment.	Yes	The Project has been designed to efficiently manage soil and sediment through the use of the ESCP and standard erosion control practices. Soil/sediment will be retained on site where possible and erosion and sediment control measures will be implemented in accordance with GD05 to ensure the on-going safety of people and that the Project avoids, remedies and mitigates adverse effects on the environment. The Project avoids effects to natural or physical resources scheduled under the AUP, such as any Outstanding Natural Landscapes or SEAs. Where possible the Project will limit the disturbance of land to the extent necessary for the delivery of the Project, which will ultimately provide for people and communities social, economic and cultural well-being as well as their health and safety
Policies E12.3	(1) Avoid where practicable, and otherwise, mitigate, or where appropriate, remedy adverse effects of land disturbance on areas where there are natural and physical resources that have been scheduled in the Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character. (2) Manage the amount of land being disturbed at any one time, to: (a) avoid, remedy or mitigate adverse construction noise, vibration, odour, dust, lighting and traffic effects; (b) avoid, remedy and mitigate adverse effects on accidentally discovered sensitive material; and (c) maintain the cultural and spiritual values of Mana Whenua in terms of land and water quality, preservation of wāhi tapu, and kaimoana gathering. (3) Enable land disturbance necessary for a range of activities undertaken to provide for people and communities social, economic and cultural well-being, and their health and safety	Yes	

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	<p>(4) Manage the impact on Mana Whenua cultural heritage that is discovered undertaking land disturbance by:</p> <ul style="list-style-type: none"> (a) requiring a protocol for the accidental discovery of kōiwi, archaeology and artefacts of Māori origin; (b) undertaking appropriate actions in accordance with mātauranga and tikanga Māori; and (c) undertaking appropriate measures to avoid adverse effects, or where adverse effects cannot be avoided, effects are remedied or mitigated. <p>(5) Design and implement earthworks with recognition of existing environmental site constraints and opportunities, specific engineering requirements, and implementation of integrated water principles.</p> <p>(6) Require that earthworks are designed and undertaken in a manner that ensures the stability and safety of surrounding land, buildings and structures.</p>		<p>with the provision of a new wastewater infrastructure.</p> <p>The effect of the Project will be further managed and mitigated through the use of a CNVMP, a CTMP and the ESCP. No significant ground settlement or stability effects from earthworks are anticipated, while Watercare also propose to employ a GWMCP during construction.</p> <p>The Project has included on-going engagement with Mana Whenua and includes an accidental discovery protocol and archaeological supervision of bulk earthworks to appropriately manage potential impacts on Mana Whenua.</p> <p>The Project has been designed in recognition of the existing environment, including its constraints and opportunities (such as the limited road access and the proximity of an overland flow path to the shaft site) This includes measures in the ESCP which will ensure that sediment discharges to the environment are avoided, as well as the use of an CTMP to minimise traffic disruptions to the local road network.</p>

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E14 – Air Quality			
Objectives E14.2	<p>(1) Air quality is maintained in those parts of Auckland that have high air quality, and air quality is improved in those parts of Auckland that have low to medium air quality.</p> <p>(4) The operational requirements of light and heavy industry, other location-specific industry, infrastructure, rural activities and mineral extraction activities are recognised and provided for.</p>	Yes	<p>Any discharge of contaminants to air (i.e. dust) during the construction phase will be appropriately managed, including the use of dust suppression measures.</p> <p>The operation of the Project will also be consistent with the AUP’s air quality standards given the projected frequency of air discharges and dispersal modelling undertaken. The vent stack design with a 5m high structure allows for adequate dispersal during a high rainfall events. In addition, the structure can be raised to 8m height should further odour dispersal be needed.</p>
Policies E14.3	<p>(1) Manage the discharge of contaminants to air, including by having regard to the Auckland Ambient Air Quality Targets in Table E14.3.1, so that significant adverse effects on human health, including cumulative adverse effects, are avoided, and all other adverse effects are remedied or mitigated.</p> <p>(2) In the coastal marine area and in urban and rural zones, except for those zones and precincts subject to policies E14.3(4) to (7):</p> <p>(a) avoid offensive and objectionable effects from dust and odour discharges and remedy or mitigate all other adverse effects of dust and odour discharges; or</p> <p>(b) require adequate separation distance between use and development which discharges dust and odour to air and activities that are sensitive</p> <p>(8) Avoid, remedy or mitigate the adverse effects on air quality from discharges of contaminants into air by:</p> <p>(a) using the best practicable option for emission control and management practices that are appropriate to the scale of the discharge and potential adverse effects; or</p> <p>(b) adopting a precautionary approach, where there is uncertainty and a risk of significant adverse effects or irreversible harm to the environment from air discharges.</p>	Yes	<p>The operation of the Project will also be consistent with the AUP’s air quality standards given the projected frequency of air discharges and dispersal modelling undertaken. The vent stack design with a 5m high structure allows for adequate dispersal during a high rainfall events. In addition, the structure can be raised to 8m height should further odour dispersal be needed.</p>

CHAPTER E – AUCKLAND WIDE			
Reference	Objective/Policy	Is the Proposal Consistent?	Comment
	<p>(9) Avoid, remedy or mitigate the adverse effects on air quality beyond the boundary of the premises where the discharge of contaminants to air is occurring, in relation to:</p> <p>(a) noxious or dangerous effects on human health, property or the environment from hazardous air pollutants; or</p> <p>(b) overspray effects on human health, property or the environment</p>		
E25 – Noise and Vibration			
Objectives E25.2	<p>(1) People are protected from unreasonable levels of noise and vibration.</p> <p>(2) The amenity values of residential zones are protected from unreasonable noise and vibration, particularly at night.</p> <p>(4) Construction activities that cannot meet noise and vibration standards are enabled while controlling duration, frequency and timing to manage adverse effects.</p>	Yes	<p>A Construction Noise and Vibration Management Plan (CNVMP) will be implemented throughout the construction period to ensure that construction noise and vibration is managed to acceptable levels at both the shaft site and along the tunnel alignment.</p> <p>Noisy works will also be concentrated during normal work hours to minimise disturbance, while regular communication with residents will be undertaken so that all parties are aware of potential disturbances.</p> <p>The operational noise effects from the Project will be largely limited to noise from maintenance crews, while the plant room will be designed to attenuate noise generated by its equipment.</p>
Policies E25.3	<p>(2) Minimise, where practicable, noise and vibration at its source or on the site from which it is generated to mitigate adverse effects on adjacent sites.</p> <p>(10) Avoid, remedy or mitigate the adverse effects of noise and vibration from construction, maintenance and demolition activities while having regard to:</p> <p>(a) the sensitivity of the receiving environment; and</p> <p>(b) the proposed duration and hours of operation of the activity; and</p> <p>(c) the practicability of complying with permitted noise and vibration standards.</p>		

CHAPTER E – AUCKLAND WIDE			
Reference	Objective/Policy	Is the Proposal Consistent?	Comment
E26 – Infrastructure			
Objectives E26.2.1	<p>(1) The benefits of infrastructure are recognised.</p> <p>(2) The value of investment in infrastructure is recognised.</p> <p>(3) Safe, efficient and secure infrastructure is enabled, to service the needs of existing and authorised proposed subdivision, use and development.</p> <p>(4) Development, operation, maintenance, repair, replacement, renewal, upgrading and removal of infrastructure is enabled.</p> <p>(5) The resilience of infrastructure is improved, and continuity of service is enabled.</p> <p>(9) The adverse effects of infrastructure are avoided, remedied or mitigated.</p>		<p>The Project is a vital wastewater infrastructure investment for Central Auckland, providing additional network capacity and assisting in the improvement of the network’s environmental performance.</p> <p>The Project will assist the delivery of new urban growth through the intensification of the central suburbs, thereby underpinning the Plan’s growth strategy.</p> <p>As previously identified, the Project may generate some adverse effects. However, the use of mitigation measures and locating the shaft site within the most beneficial location, will ensure that the scale of adverse effects is no more than minor. It is also noted that these adverse effects are outweighed by the Project’s benefits of enabling growth, supporting public health and protecting the environment.</p>
Policies E26.2.2	<p>(1) Recognise the social, economic, cultural and environmental benefits that infrastructure provides, including:</p> <p>(a) enabling enhancement of the quality of life and standard of living for people and communities;</p> <p>(b) providing for public health and safety;</p> <p>(c) enabling the functioning of businesses;</p> <p>(d) enabling economic growth;</p> <p>(e) enabling growth and development;</p> <p>(f) protecting and enhancing the environment;</p>	Yes	<p>Lastly, full consideration has been given to the location of the shaft site. As identified in the assessment of alternatives, the Tawariki Street site represents the best option available to provide both a practical construction solution, as well as minimise the social and property effects of the Project.</p>

CHAPTER E – AUCKLAND WIDE			
Reference	Objective/Policy	Is the Proposal Consistent?	Comment
	<p>(2) Provide for the development, operation, maintenance, repair, upgrade and removal of infrastructure throughout Auckland by recognising:</p> <ul style="list-style-type: none"> (a) functional and operational needs; (b) location, route and design needs and constraints; (c) the complexity and interconnectedness of infrastructure services; (d) the benefits of infrastructure to communities with in Auckland and beyond; (e) the need to quickly restore disrupted services; and (f) its role in servicing existing, consented and planned development. <p>(4) Require the development, operation, maintenance, repair, upgrading and removal of infrastructure to avoid, remedy or mitigate adverse effects, including, on the:</p> <ul style="list-style-type: none"> (a) health, well-being and safety of people and communities, including nuisance from noise, vibration, dust and odour emissions and light spill; (b) safe and efficient operation of other infrastructure; (c) amenity values of the streetscape and adjoining properties; (d) environment from temporary and ongoing discharges; and (e) values for which a site has been scheduled or incorporated in an overlay. <p>(5) Consider the following matters when assessing the effects of infrastructure:</p> <ul style="list-style-type: none"> (a) the degree to which the environment has already been modified; (b) the nature, duration, timing and frequency of the adverse effects; (c) the impact on the network and levels of service if the work is not undertaken; (d) the need for the infrastructure in the context of the wider network; and (e) the benefits provided by the infrastructure to the communities within 		

CHAPTER E – AUCKLAND WIDE			
Reference	Objective/Policy	Is the Proposal Consistent?	Comment
	Auckland and beyond.		

CHAPTER H – ZONES			
Reference	Objective/Policy	Is the Proposal Consistent?	Comment
H5 – Residential – Mixed Housing Urban Zone			
Objectives H5.2	(4) Non-residential activities provide for the community's social, economic and cultural well-being, while being compatible with the scale and intensity of development anticipated by the zone so as to contribute to the amenity of the neighbourhood.	Yes	<p>Given the brownfield nature of the Project area, it was necessary to construct the Project in proximity to existing wastewater assets (e.g. the Orakei Main Sewer). This avoids the need for additional works to connect new and existing infrastructure, thereby reducing the construction related disruption generated by the Project. Furthermore, this co-location of new and existing infrastructure avoids the need for costly and complicated retrofitting of existing infrastructure given that wastewater networks rely on being gravity feed within a narrow range of pipeline gradients.</p> <p>Furthermore, the Project was subject to an assessment of alternatives to confirm the most appropriate location of the shaft site. Following an MCA process involving 5 options, the Tawariki Street site was determined the most appropriate location given its proximity to existing network assets</p>
Policies H5.3	<p>(10) Recognise the functional and operational requirements of activities and development.</p> <p>(8) Provide for non-residential activities that:</p> <p>(a) support the social and economic well-being of the community;</p> <p>(b) are in keeping with the with the scale and intensity of development anticipated within the zone;</p> <p>(c) avoid, remedy or mitigate adverse effects on residential amenity;</p>	Yes	

CHAPTER H – ZONES			
Reference	Objective/Policy	Is the Proposal Consistent?	Comment
			<p>and its minimal adverse effects as compared to the other options.</p> <p>Watercare are also cognisant of the Project's residential location and have proposed a range of measures to manage and/or mitigate the effects of the Project on the amenity and character of the surrounding area.</p> <p>Furthermore, it will support the social and economic wellbeing of the community by providing improved wastewater network capacity and making best use of existing wastewater infrastructure investment.</p>