11 Assessment of Planning Documents

11.1 Introduction

The planning documents relevant to the NoRs and resource consents are as follows:

- National Policy Statement for Freshwater Management 2014 (NPS_{FM});
- National Policy Statement on Electricity Transmission 2008 (NPS_{ET});
- National Environmental Standards for Electricity Transmission Activities (NES_{ETA})
- National Environmental Standard for Air Quality (NES_{AQ});
- National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES_{Soil});
- Auckland Unitary Plan Operative in Part (AUP).
- Auckland Council Regional Policy Statement (ACRPS)
- Auckland Regional Plan: Air, Land and Water (ACRP:ALW)

These identified documents contain a number of objectives and policies relevant to the Project. For reference, the relevant objectives and policies are contained within **Appendix D** of this AEE. Additional discussion and assessment has been undertaken against the relevant non-regulatory documents at **Sections 2 and 3** as referenced in **Section 11.10** below.

The following assessment demonstrates that the Project is consistent with the relevant planning documents in accordance with sections 171(1)(a), 104(1)(b), 104C, and 104D(1)(b) of the RMA.

11.2 National Policy Statement for Freshwater Management

The NPS_{FM} is about recognising the national significance of freshwater for all New Zealanders and Te Mana o te Wai. The NPS_{FM} is primarily relevant to developing regional plans but is also a matter to consider when assessing regional resource consents involving water takes and discharges. The NPS_{FM} contains policies and objectives grouped into the following relevant topics:

- Water quality (A);
- Water quantity (B);
- Integrated management (C);
- Accounting for freshwater takes and contaminants (CC); and
- Tangata whenua roles and interests (D).

11.2.1 Water quality

The following water quality provisions are of particular relevance to the Project:

- Objective A1 states:

  To safeguard:
  a) the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems, of fresh water; and
  b) the health of people and communities, at least as affected by secondary contact with fresh water;
  in sustainably managing the use and development of land, and of discharges of contaminants.

- Objective A2 states:

The overall quality of freshwater within a region is maintained or improved while:

a) protecting the significant values of outstanding freshwater bodies;
b) protecting the significant values of wetlands; and
c) improving the quality of fresh water in water bodies that have been degraded by human activities to the point of being over-allocated.

The NPS_{FM} provides for a staged implementation programme over which time councils are required to include objectives and policies in their plans to reflect the stated objectives. The relevant policies have been incorporated into the AUP and are discussed under Chapter E1 below. The interim freshwater quality guideline will be replaced by more comprehensive water quality and quantity objectives and limits to be developed with communities in accordance with the NPS_{FM} and subsequently given effect to through changes to the AUP.

Section 10 outlines the methods proposed to treat stormwater prior to discharge, which will be achieved by diverting stormwater to stormwater wetlands, in conjunction with the use of treatment and conveyance swales and devices. Treatment of stormwater for 99% of new and existing HUR will lead to an improvement of the water quality of discharges. During the operational phase, the proposed enhanced stormwater quality treatment of existing impervious areas will result in the overall loads of key metals from the Project's impervious areas being reduced. This means the Project will have a net beneficial effect on stormwater quality and the downstream water quality. However, given the larger loads of contaminants from the wider catchments, any net positive change in water quality at the baseline monitoring sites is likely to be minor.

Construction water management will adopt an approach that provides certainty that the construction activities can occur with minimal sediment discharges and associated construction related effects to the extent that water quality will be maintained and at a minimum will meet the requirements of the NZ Transport Agency Guideline and TP90.

As described in **Section 9.15**, the aquatic ecology values within the Project area are considered to have a range of values from very low to moderate. It is considered that any potential adverse effects can be appropriately mitigated to a less than minor effect, following sediment control and ground stabilisation, fish recovery and relocation, and riparian planting.

11.2.2 Water quantity

Construction of the Project will require dewatering and groundwater diversion. The following water quantity objective is of relevance to the Project:

- Objective B1 states:

  To safeguard the life-supporting capacity; ecosystem processes and indigenous species including their associated ecosystems of fresh water, in sustainably managing the taking, using, damming or diverting of freshwater.

As outlined in **Section 10**, the Project proposes a Construction Water Management Plan to safeguard the life-supporting capacity of freshwater and of the associated ecosystem during water diversion and the taking of water during construction. The taking and diverting of groundwater during construction is principally to dewater areas to improve access and avoid adverse effects on water quality during earthworks and construction of structures. These effects will be temporary and the discharge of this water will recharge these water resources with a minimal effect on water quantity. During the operation phase of the Project, water quantity will be managed through the stormwater wetlands and stormwater devices with water retained within the catchment. Overall, it is considered that the Project is consistent with the overall intent of the NPS_{FM} in relation to water quantity and its objectives relating to water quantity.

11.2.3 Tangata whenua roles and interests

Part D of the NPS_{FM} contains the following objective:

> *To provide for the involvement of iwi and hapu, and to ensure that tangata whenua values and interests are identified and reflected in the management of fresh water including associated ecosystems, and decision-making regarding freshwater planning, including on how all other objectives of this national policy statement have been given effect to.*

Part D requires local authorities to take reasonable steps to work with iwi and hapu and to reflect tangata whenua interests (Policy D1). While the NPS_{FM} requires actions to be taken by councils to develop policies (rather than requiring actions by requiring authorities and applicants for consents and approvals), it is relevant to highlight that the Project has been developed in consultation with tangata whenua, including in terms of how the Project may affect freshwater systems and terrestrial habitats. Feedback from Mana Whenua at Project hui included discussions on avoiding effects on natural areas and waterways such as the Oteha Valley as discussed in **Section 8.7.6**. A series of baseline assessments were presented to Mana Whenua included stormwater, water quality, and freshwater, ecology. Mana Whenua have made suggestions for amendments to draft conditions and matters to be included in the management plans that are of relevance to water management and these are being considered by the NZ Transport Agency.

11.3 National Policy Statement on Electricity Transmission

The NPS_{ET} sets out the objective and policies to enable the management of the effects of the electricity transmission network under the RMA. It recognises the crucial role that the efficient transmission of electricity plays in the well-being of New Zealand and that its characteristics create challenges for its management under the RMA.

- The objective of NPS_{ET} is:

> *To recognise the national significance of the electricity transmission network by facilitating the operation, maintenance and upgrade of the existing transmission network and the establishment of new transmission resources to meet the needs of present and future generations, while:*
>
> - *managing the adverse environmental effects of the network; and*
> - *managing the adverse effects of other activities on the network.*

Policies 10 and 11 seek to manage the potential adverse effects of third party activities on the transmission network. The Project affects Transpower's transmission lines along SH18. Transpower has been consulted and various options to address the potential impacts of the Project on the transmission lines are currently being worked through by Transpower and the NZ Transport Agency. Accordingly, it is considered that the Project is consistent with the NPS_{ET} and its objective and policies.

11.4 National Environmental Standards for Electricity Transmission Activities

The NES_{ETA} contains regulations relating to the operation, maintenance, upgrade, relocation or removal of existing transmission lines and permits or controls these activities. No work is proposed in relation to Transpower's underground transmission line within the Project area (as the current proposal is to culvert over the top of it). If any additional work is required, this will be undertaken in conjunction with Transpower and consent under the NES_{ETA} will be sought if necessary.

11.5 National Environmental Standards for Air Quality

Regulation 13 of the NES_{AQ} sets the ambient air quality standards and the requirements for management of air quality within identified air sheds. It is the responsibility of Regional Councils to manage air quality and to comply with the Regional Air Quality targets for their airshed(s).

No consents are required under the NES_{AQ} as the operational pollutant concentrations from the Project will be below the relevant standards. However, the NES_{AQ} has informed the assessment of construction and operational air quality effects and the proposed mitigation measures outlined in **Section 9** and **Section 10**. This assessment concluded that potential dust effects can be effectively managed through mitigation measures and the implementation of a dust management plan that will ensure that compliance is achieved with the Total Suspended Particulate (TSP) limits. Accordingly, the potential adverse air quality effects arising from the Project will be suitably avoided or mitigated in accordance with NES_{AQ}.

11.6 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health

The NES_{Soil} provides a mix of permitted activities and resource consent requirements for certain activities on land affected or potentially affected by contaminants in soil.

Regulation 5(7) of the NES_{Soil} states that these regulations apply to land where an activity or industry scheduled in the HAIL is being, or has been, undertaken on that land. The NES_{Soil} provides a nationally consistent set of planning controls and soil contaminant values, and ensures that land affected by contaminants is appropriately identified and assessed prior to development, and if necessary the land is remediated to make it safe for human use.

Given the extent of the Project and the urban nature of the existing environment, a precautionary approach has been taken to the potential existence of contamination. A PSI has been undertaken in accordance with Regulation 6 which has informed the Assessment of Land Contamination Effects (**Technical Assessment 6**). The PSI has identified a number of locations within the Project area where there is some basis for an activity or industry listed in the HAIL to be assumed as having been undertaken. Further sampling of these identified sites will be undertaken in accordance with Regulation 8(2) as part of the preparation of a DSI during the detailed design phase.

Land use consent is required under Regulation 11 of the NES_{Soil} as a discretionary activity. The NES_{Soil} sets out controls and standards to manage soil disturbance on contaminated land and potentially contaminated land. A draft CSMP has been prepared to support this resource consent application which outlines the soil management protocols that will be implemented and will ensure that all potential risks will be appropriately managed.

The potential impacts of the Project on the Rosedale Closed Landfill has been assessed separately in Assessment of Effects – Corridor Encroachment on Rosedale Landfill (**Technical Assessment 7**) and it is proposed to manage these effects through the LRWP and the LHSP as further discussed in **Section 9.18** and confirmed in the draft conditions described in **Section 10**.

11.7 Auckland Unitary Plan Operative in Part

On 15 November 2016, AC gave public notice that it had resolved to make parts of the Proposed Auckland Unitary Plan 'operative in part'. At the same time AC issued an annotated version of the AUP that identifies those provisions that are operative, and those that are subject to appeal to the High Court or the Environment Court. In addition, the regional coastal plan provisions are not yet operative the AUP since these are yet to be confirmed by the Minister of Conservation.

All rules relevant to the Project (regional plan and district plan) are operative. The relevant objectives and policies of the AUP that are subject to appeal (regional policy statement and regional plan) relate to Urban Growth and Form, Vegetation Management and Biodiversity, Natural Hazards and Flooding, and Significant Ecological Areas. The Project team's analysis of the appeals has indicated that they only affect the following objectives and policies that are relevant to the Project:

- Objectives: Urban Growth and Form (**B2.5.1.1**)
- Policies: Urban Growth and Form (**B2.2.2.4**)
- Policies: Significant Ecological Areas Overlay (**D9.3.1**, **D9.3.2**, **D9.3.6**)
- Policies: Vegetation management and biodiversity (**E15.3.2**, **E15.3.4, E15.3.7**)
- Policies: Natural hazards and flooding (**E36.3.1**)

The corresponding objectives and policies from the ACRPS and the ACRP:ALW have been identified and an assessment made.

11.7.1 Regional Policy Statement

The RPS forms Chapter B of the AUP and sits above the suite of regional and district planning provisions. The purpose of the RPS, under section 59 of the RMA, is to "achieve the purpose of the Act by providing an overview of the resource management issues of the region and policies and methods to achieve integrated management of the natural and physical resources of the whole region".

The RPS contains nine issues of regional significance for resource management in Auckland. The following issues are relevant to the Project:

- Infrastructure, transport and energy;
- Issues of significance to Mana Whenua;
- Natural resources; and
- Environmental risk.

11.7.1.1 B2 Urban growth and form

Chapter B2 of the RPS states that growth needs to be provided for as the demand for housing, employment, business, infrastructure, social services and services increases. The objectives and policies of Chapter B2 are relevant insofar as infrastructure is required to support the growth of the Region and are therefore the Project indirectly supports these objectives.

Objective in B2.2.1 aims to achieve a quality compact urban form that enables, amongst other things, better use of existing infrastructure and efficient provision of new infrastructure. The Project will is consistent with both these objectives since it will result in the upgrading of SH1 and SH18, the provision of new busway and new SUP facilities that will support compact urban growth.

Policy B2.2.2.4 focuses on achieving a quality compact urban form within the metropolitan area 2010 and enabling growth within the Rural Urban Boundary. The Project is consistent with, and supports, this policy since it provides for capacity improvements and multi-modal transport choices within the Rural Urban Boundary.

Objective B2.7.1 and the relevant corresponding policies in B2.7.2 aim to ensure that the recreational needs of people are met through the provision of a range of quality open space and recreation facilities. Policy B2.7.2.7 states that significant adverse effects of land use or development on open spaces and recreation facilities are to be avoided, remedied, or mitigated. The Project will result in the

loss of some open space in Rosedale South Park in order to accommodate the new SH1/SH18 ramps. In addition, several stormwater wetlands will be located on existing Council reserves. As set out in **Sections 9.9** and **9.10** of this AEE conclude that the potential for significant adverse effects on open spaces and the NHHS will be mitigated through:

- A Reserve Reinstatement package to be agreed with AC to ensure remediation and return to public use in an effective and efficient manner;
- The design of the stormwater management wetland at either Bluebird Reserve or Rook Reserve be progressed in agreement with AC such that it provides an additional amenity area within the reserve, and meets public safety requirements; and
- A specific mitigation package during construction and a permanent mitigation solution following the completion of construction to offset the effects on the hockey recreation facilities.

The proposed SUPs will also provide better connections between existing open spaces along the length of the Project as well as providing safer walking and cycling facilities and more direct connectivity for pedestrians and cyclists. Therefore, the Project appropriately provides for the recreational needs of people.

11.7.1.2 B3 Infrastructure, transport and energy

Chapter B3 recognises that realising Auckland's full economic potential will need to address, amongst other things, the efficient development, operation, maintenance and upgrading of infrastructure and traffic management (B3.1 Issues).

The infrastructure objectives (B3.2.1) focus on ensuring that the benefits of infrastructure are recognised while managing the adverse effects of the development of that infrastructure. Specific recognition is given to the 'functional and operational needs' of infrastructure, and the explicit identification of the necessity to locate in a particular environment when the operational functionality of the infrastructure requires that it be located in that environment.

Policies B3.2.2.1, B3.2.2.2, B3.2.2.3, B3.2.2.6, and B3.2.2.8 enable the development of infrastructure in a way that:

- Provides for the efficient development, operation, maintenance and upgrading of infrastructure;
- Recognises the value of investment in existing infrastructure;
- Recognises the locational requirements of infrastructure by recognising a functional or operational need to be located in sensitive areas;
- Enables infrastructure within sensitive areas whilst ensuring that the adverse effects on values can be avoided, remedied or mitigated; and
- Avoids, remedies or mitigates the adverse effects from the construction, operation, maintenance, or repair of infrastructure.

The Project relates, in part, to improvement of existing infrastructure, this being SH1 and SH18 and an extension to the Busway.

Given the existing location of SH1, SH18 and the Busway, parts of the Project are required to be in areas identified in the AUP as SEAs due to existing locational constraints and lack of feasible alternatives. The methods to avoid, remedy or mitigate adverse effects are outlined in **Section 9** of this AEE. In terms of sensitive areas, vegetation removal within the two SEAs within the Project area is small in area and has been minimised to the greatest extent possible. Extensive replanting is proposed to mitigate the effects of vegetation removal and measures will be implemented to protect nesting birds. The Project represents the efficient development and upgrading of infrastructure and will be consistent with the objectives and policies by mitigating adverse effects in this way.

Transport objective, Objective B3.3.1.1, aims to ensure the development of an effective, efficient and safe transport network that:

- Supports the movement of people, goods and services;
- Integrates with and supports a quality compact urban form;
- Enables growth;
- Avoids, remedies or mitigates adverse effects on the quality of the environment and amenity values and the health and safety of people and communities; and
- Facilitates transport choices, recognises different trip characteristics and enables accessibility and mobility for all sectors of the community.

The Project is consistent with this objective and the supporting policies in B3.3.2 as follows:

- This multi-modal project involves the upgrade of SH1 and SH18 as well as a new busway extension and SUP (B3.3.2.1);
- The additional lanes along SH1 and the provision of the connections between SH18 and SH1 will result in efficiency gains throughout the Project area and enhance the capacity and efficiency of movement for people and freight travelling within Auckland and to the north (B3.3.2.2);
- The proposed extension to the Northern Busway will allow for modal choice and increased movement of people and integration with employment and commercial centres; and,
- The proposed SUP will provide effective pedestrian and cycle connections (B3.3.2.4).

In addition, Policy B3.3.2.7 requires the adverse effects associated with the construction or operation of transport infrastructure on the environment and the community to be avoided, remedied or mitigated. **Section 9** of this AEE provides an overview of the potential effects of the Project and **Section 10** outlines the methods to avoid, remedy or mitigate adverse effects.

11.7.1.3 B6 Mana Whenua

Chapter B6 of the RPS addresses the importance of Mana Whenua values and recognises the relationship of Mana Whenua with natural and physical resources including freshwater, land and air.

The objectives in B6.3.1 seek to ensure that:

- Mana Whenua values, matauranga and tikanga are properly reflected and accorded sufficient wright in resource management decision making;
- The mauri of, and relationship of Mana Whenua with, natural and physical resources are enhanced overall; and
- The relationship of Mana Whenua with the matters scheduled in the AUP is recognised and provided for (there are no scheduled Mana Whenua sites within the Project area).

In particular, Policy B6.3.2.3 aims to ensure that Mana Whenua values are considered in any assessment of environmental effects. The consultation undertaken with Mana Whenua for this Project is outlined in **Section 8** Consultation. Regular hui have been held with Mana Whenua and will continue to be held throughout the detailed design phase of the Project. Cultural Values Assessments have been produced by several iwi groups which have emphasised the desire to act as kaitiaki for the natural environment, particularly the natural watercourses and areas of valued vegetation within the Project area.

Policy B6.3.2.4 recognises the need to integrate Mana Whenua values into the management of natural and physical resources. As outlined above, extensive engagement with Mana Whenua has occurred throughout the development of the Project and has fed into the development of the design for the Project. In particular, concerns about the intrinsic values of Lucas Creek and the taniwha located there

have influenced decision-making around the design of the Project north of the Oteha Valley Interchange.

In accordance with Policy B6.3.2.6, consultation with Mana Whenua has assisted the Project team in understanding the potential impacts of the Project on Mana Whenua values including kaitiakitanga, mauri and customary activities. **Section 9.11** also provides further information on the effects raised by nine Mana Whenua groups, and how they are to be mitigated through:

- Mitigation planting;
- Retention of riparian planting as far as possible at Lucas Creek and Alexandra Stream;
- Stormwater treatment;
- Construction water management; and
- Management of leachate and construction activity at the Rosedale Closed Landfill.

11.7.1.4 B7 Natural resources

The RPS acknowledges that urban growth and past practices have placed pressure on land and water resources, and reduced air quality and that the pressures of natural resources need to be managed to ensure environmental, social, economic and cultural well-being (B7.1 Issues).

11.7.1.5 B7.2 Indigenous Biodiversity

Objectives B7.2.1.1 and B7.2.1.2 focus on ensuring that:

- Areas of significant indigenous biodiversity value are protected from the adverse effects of subdivision, use and development; and
- Indigenous biodiversity is maintained through the protection, restoration and enhancement of areas where ecological values are degraded or where development is occurring.

Aquatic and terrestrial ecological values have been assessed, as discussed in **Section 9.15** and **Section 9.16** respectively. Those values are generally low given the urbanised nature of the catchment. The RWWTP supports important avifauna populations including the Threatened New Zealand dabchick but adverse effects on avifauna there, and elsewhere in the Project area, can be effectively managed during the construction phase of the Project, and the new wetlands in the area will further improve local habitat during operation. Vegetation (flora) and fauna (including lizards, birds and long-tailed bats) have the potential to be present within the Project area. Conditions requiring the following management plans will ensure effects on indigenous biodiversity will be appropriately avoided, remedied, or mitigated, and therefore indigenous biodiversity will be maintained:

- CEMP;
- Avifauna Management Plan;
- Lizard Management Plan; and
- Urban Design and Landscape Management Plan.

The relocation of native fish populations affected by the Project works will also be required.

Policy B7.2.2.5 aims to avoid adverse effects on areas scheduled as SEAs. Two SEAs are affected by the Project:

- SEA_T_8364 – Pond 1, RWWTP; and
- SEA_T_8365 – Pond 2, RWWTP.

Works within SEA_T_8364 and SEA_T_8365 include new stormwater ponds, stormwater connections and works to the causeway. The ecological survey found that the terrestrial values within these SEAs

are low. While a relatively large population of birds is present, the population is acclimatised to the existing urban environment including activities at the RWWTP, the motorway and the adjacent Helitranz heliport. Therefore, the risk of the bird population being adversely affected by the Project is negligible. A bird survey is proposed prior to the commencement of work to re-confirm nesting locations. Conditions are also proposed to avoid effects on potential nesting areas.

Minor works are proposed adjacent to SEA_T_8082 (Alexandra Stream) including vegetation clearance to accommodate required work on the stormwater outfalls. Any required vegetation removal can be mitigated through mitigation planting. In addition, SEA_T_8297 (Lucas Creek), is located proximate to works being undertaken as part of the Project but is not affected by those works.

11.7.1.6 B7.3 Freshwater Systems

Objective B7.3.1.1 requires degraded freshwater systems to be enhanced, Objective 7.3.1.2 requires the loss of freshwater systems be minimised and Objective 7.3.1.3 requires the adverse effects of changes in land use on freshwater to be avoided, remedied or mitigated. Policies B7.3.2.1, B7.3.2.5, and B7.3.2.6 follow from these objectives in requiring development in lakes, rivers and streams to, amongst other things:

- Control 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;
- Avoid development where it will significantly increase adverse effects on freshwater, unless these adverse effects can be adequately mitigated;
- Avoid the permanent loss and significant modification or diversion of lakes, rivers, streams (excluding ephemeral streams), and wetlands and their margins;
- Minimise erosion and modification;
- Limit the establishment of structures within those waterbodies to those that have a function need or operational requirement to be located there;
- Maintain or where appropriate enhance freshwater systems not protected under management areas;
- Maintain or where appropriate enhance existing riparian vegetation;
- Maintain or where appropriate enhance areas of significant indigenous biodiversity; and
- Restore and enhance freshwater systems where practicable when development, change of land use, and subdivision occur.

The stream to the south of Pond 1 is to be removed. As has been noted in Section 6.1.1, while the watercourse in this location is a highly modified stormwater drainage channel, there is an argument that it falls within the definition of ‘stream’ within the AUP because there was originally a watercourse in this approximate location within the catchment. A conservative approach has therefore been adopted and the watercourse has been treated as a ‘stream’. Under Policy B7.3.2.4 the permanent loss of water bodies is to be avoided unless no practical alternative exists, the adverse effects are mitigated, and if they cannot be adequately mitigated environmental benefits including on-site or off-site works are provided. There are no feasible alternatives that would retain these channels given the existing location of SH18 and the difficulty of culverting the streams under a large embankment at a significant depth. The ecological values of the channel are very low and there will be on-site benefits through the creation of a new stormwater pond (wetland) in this location. The measures to avoid, remedy, or mitigate adverse effects on freshwater environments already outlined above including improvement in the quality of stormwater discharges and measures to prevent erosion and scour at the new outfalls, will ensure the remaining objectives and policies are achieved.

New structures are proposed in the following waterbodies:

- A widening of the crest of the existing causeway structure within Ponds 1 and 2 (Ponds 1 and 2 fall within the definition of 'lake' in the RMA);
- New outfall structures in Lucas Creek, Oteha Valley Stream and Alexandra Stream; and
- Three new culverts (Oteha Valley Road and Caribbean Drive) and the extension of various existing culverts.

The CESCPs will minimise erosion and modification of waterbodies in the Project area during construction, and riparian planting will enhance the habitat value of streams and their margins. It is necessary to locate these structures at the identified locations due to the existing topography and natural water flows. The outfall structures are designed to avoid erosion and will likely improve the current unmanaged flows within this urbanised area.

Policy B7.3.2.6 requires the restoration and enhancement of freshwater systems where practicable when development occurs. As outlined above, mitigation planting will be carried out where work within streams is to occur and the new stormwater ponds will provide additional habitat.

11.7.1.7 B7.4 Coastal water, freshwater and geothermal water

Objective B7.4.1.2 requires the maintenance of the quality of freshwater and coastal water where it is excellent or good and progressive improvement over time where it is degraded. Objective B7.4.1.4 relates to the adverse effects of point and non-point discharges on water resources, and Objective B7.4.1.6 to the mana whenua values of these water resources. The Project has the potential to impact on freshwater, but as outlined in **Section 9.17** and **Section 9.19** of this AEE, the water quality is of low to moderate value and there will be an overall improvement relating to the quality of stormwater discharges from the Project area and water quality of surface water as a consequence of the stormwater management system proposed. In this way, the Project will meet the objective of progressively reducing existing adverse effects on the freshwater receiving environment. For this reason, the Project is also consistent with Policy B7.4.2.7(b) and (c). During construction the potential for non-point source discharges will be managed through the CESCPs. As a consequence, the Project is consistent with these policies. Further discussion of mana whenua values associated with freshwater resources is also set out in **Section 11.7.1.3** above.

Policy B7.4.2.1 is relevant in that it relates to controlling the use of land and discharges to minimise the adverse effects of runoff on water, and to avoid development where it will significantly increase adverse effects on freshwater, unless they can be adequately mitigated. For the reasons outlined above in Section 11.2, the Project is consistent with this policy.

Policy B7.4.2.8 requires the minimisation of the loss of sediment from development and the management of discharges into freshwater by promoting management measures to retain sediment and requiring the use of industry best practice, having regard to the nature and scale of the activity and the sensitivity of the receiving environment. The Assessment of Construction Water Management (**Technical Assessment 4**) identifies a range of techniques available to the NZ Transport Agency that will ensure that potential sediment lost into watercourses will not result in significant adverse effects. The Assessment of Surface Water Quality Effects (**Technical Assessment 12**) and Assessment of Freshwater Ecological Effects (**Technical Assessment 5**) conclude that the anticipated sediment levels are within the tolerances of the receiving environment.

Policy B7.4.2.9 requires the management of stormwater to:

- Minimise the generation and discharge of contaminants and minimise adverse effects on freshwater and the capacity of the stormwater network; and

- Adopt the BPO for every stormwater diversion and discharge.

The BPO has been considered both in terms of the effects of discharges both during construction and operation as outlined in the:

- Assessment of Stormwater Management (**Technical Assessment 11**); and
- Assessment of Construction Water Management.

Overall, and the proposed conditions and associated management plan based approach will ensure the Project minimises the discharge of contaminants and accords with the objectives and policies set out above.

11.7.1.8 B7.5 Air

Objective B7.5.1.2 enables the establishment of infrastructure by providing for reduced ambient air quality amenity in appropriate locations.

The policies in B7.5.2 aim to manage air discharged to, amongst other things:

- Avoid significant adverse effects on human health and reduce exposure to adverse air discharges;
- Protect activities that are sensitive to the adverse effects of air discharges;
- Enable the development of infrastructure, industrial and rural production activities by providing for low air quality amenity in appropriate locations; and
- Meet the AAAQS.

The Assessment of Air Quality Effects (**Technical Assessment 1**) has concluded that no exceedance of the relevant air quality standards is likely to occur as a result of the operation of the Project and the potential adverse effects of the Project during operation are therefore less than minor. If the Project achieves the aim of increasing network capacity, traffic will flow more freely through the region, the total emissions will decline and on an airshed scale this is likely to result in a slight net benefit for regional air quality as compared to the air quality if the Project were not built.

During construction, any potential dust effects will be managed in accordance with the requirements of the proposed CAQMP. The measures in the CAQMP will ensure that dust is effectively managed and therefore will be in accordance with this objective and these policies.

11.7.1.9 B10 Environmental Risk

Chapter B10 considers environmental risks, namely natural hazards and land contamination that are relevant to the Project.

Objective B10.2.1.5 focuses on the protection of floodplains and other natural systems from inappropriate subdivision, use and development, and Objective B10.2.1.6, the maintenance of the conveyance function of overland flow paths.

The potential effects of flooding have been assessed in **Section 9.17** to highlight that stormwater devices will provide an overall improvement to flooding risk across the catchment, except for a minor adverse effect for a small number of properties. Stormwater management for the Project has specifically considered overland flow paths for:

- Oteha Valley Road;
- McClymonts Road (partially);
- Greville Road;
- Rosedale Road (partially);
- Caribbean Drive; and
- Paul Matthews Road (partially).

In all the above cases, the local road is proposed to be either widened or realigned without decreasing its width, at similar grades. As such, the Project works does not adversely affect the capacity of local roads to act as overland flow paths.

Policies B10.2.2.5, B10.2.2.7, and B10.2.2.12 are relevant to the Project since they aim to:

- Manage subdivision, use, and development of land subject to natural hazards by reference to the probability and scale of the natural hazard, vulnerability and resilience, and the cumulative effects on other activities and resources;
- Avoid or mitigate the effects of activities in areas subject to natural hazards, such as earthworks, changes to natural and built drainage systems, vegetation clearance and new or modified structures, so that the risks of natural hazards are not increased; and
- Minimise the risks from natural hazards to new infrastructure which functions as a lifeline utility.

As outlined above, the Project has been designed to ensure that flooding as a result of the Project is minimised. Overall, there will be an improvement to flooding risk across the catchment and only a minor adverse effect on a small number of properties. The State highway system is a lifeline utility and the Project has been designed to ensure that flooding of the carriageway will not occur.

Objective B10.4.1.1 focuses on protecting human health and the quality of air, land and water resources by the identification, management and remediation of land that is contaminated. Policy B10.4.2.3 requires the management or remediation of contaminated land where the level of contamination renders the land unsuitable for its proposed use, the discharge of contaminants is generating significant adverse effects on the environment or development is proposed.

Section 9.14 and the Assessment of Land Contamination Effects address land contamination as an environmental risk, other than for the Rosedale Closed Landfill which has been assessed separately. A PSI has been completed and a draft CSMP prepared. The DSI currently being undertaken will assess the actual site conditions within areas of potential contamination to further refine the draft CSMP. These measures are consistent with protecting human health and will ensure the Project is consistent with this objective and policy for managing environmental risk.

The construction works will also require the disturbance of the Rosedale Closed Landfill and the Project team has been working closely with the CLCLR team to agree the methodology for the work. All refuse will be removed from the area to be occupied by the busway and SUP and a new sidewall liner will be provided. Works within the Rosedale Closed Landfill will be managed under an approved Landfill Management Plan that will ensure that all air and leachate discharges from the Rosedale Closed Landfill are appropriately managed. Any affected landfill infrastructure will be reinstated (including a monitoring network) and a two-tier system implemented for preventing lateral migration of landfill gas.

11.7.2 Regional Plan

The regional plan section of the AUP contains the objectives and policies that inform the overlay and Auckland-wide provisions within the AUP. The relevant sections of the regional plan that are assessed below are:

- D9 Significant Ecological Areas;
- E1 Water quality and integrated management;
- E2 Water quantity, allocation and use;
- E3 Lakes, rivers, streams and wetlands;
- E9 Stormwater quality;
- E10 Stormwater management area – Flow 1 and Flow 2;
- E11 Land disturbance;

- E13 Cleanfills, managed fills and landfills;
- E14 Air quality;
- E15 Vegetation management and biodiversity;
- E26 Infrastructure; and
- E30 Contaminated land.

11.7.2.1 D9 Significant Ecological Areas overlay

Objective D9.2.1 requires the protection of areas of significant indigenous biodiversity values from the adverse effects associated with subdivision, use and development, the enhancement of the indigenous biodiversity of SEAs and that the relationship of Mana Whenua and their customs and traditions with indigenous vegetation is recognised and provided for.

Policy D9.3.1 aims to manage the effects of activities on SEAs by:

- Avoiding adverse effects as far as practicable, and where avoidance is not practicable, minimising adverse effects on the identified values;
- Remedying adverse effects on the identified values where they cannot be avoided;
- Mitigating adverse effects on the identified values where they cannot be avoided or remediated; and
- Considering the appropriateness of offsetting of any residual significant adverse effects through protection, restoration and enhancement measures, having regard to biodiversity offsetting in Appendix 8.

Policy D9.3.2 specifies that the effects which are required to be avoided, remedied, mitigated or offset include, but are not limited to fragmentation or reduction in the size of indigenous ecosystems, fragmentation or disruption of connections between ecosystems, increased threats from pests, loss of buffering of indigenous ecosystems and other matters.

Policy D9.3.3 requires the enhancement of indigenous biodiversity values in SEAs through a number of methods including re-vegetation of areas using indigenous species sourced from naturally growing plants in the vicinity.

Policy D9.3.6 focuses on avoiding, as far as practicable the removal of vegetation and loss of biodiversity by, amongst other things. Assessing any practicable alternative locations and/or methods that would reduce the need for vegetation removal or land disturbance.

As noted above, three SEAs are affected by the Project at the RWWTP (two SEAs) and at Alexandra Stream. The affected area within Alexandra Stream is very small in area and mitigation planting of indigenous planting will be undertaken in respect of any vegetation removal. With regard to the RWWTP, the ecological surveys have found that the terrestrial and aquatic ecological values within the SEAs are low. Similarly, indigenous mitigation planting will be implemented within the RWWTP.

Vegetation removal has been avoided at SEA_T_8297 adjacent to Lucas Creek at Oteha Valley Road through design development and the decision to delete the proposed northbound climber lane along the western side of this stretch of SH1. As a consequence of the approach taken to avoid, remedy, or mitigate adverse effects on significant ecological areas, the Project is in accordance with the relevant objective and policies.

11.7.2.2 E1 Water quality and integrated management

The focus of Chapter E1 is to avoid adverse effects on freshwater resources as far as practicable, and where this is not possible the provisions of the AUP seek to minimise and reduce the adverse effects. The specific requirements of Objective E1.2.1, Objective E1.2.2, and Objective E1.2.3 are to:

- Maintain freshwater and sediment quality where it is excellent or good and progressively improve it over time in degraded areas;
- Maintain the mauri of freshwater or progressively improving it over time; and
- Manage stormwater and wastewater networks to protect public health and safety and to prevent or minimise adverse effects of contaminants on freshwater and coastal water quality.

Supporting Policy 1.3.1 focuses on managing discharges to maintain or enhance water quality where that quality is good and enhance water quality where it is degraded. Policy E1.3.4 requires the Council to have regard to the following matters when considering an application for a discharge:

- The extent to which the discharge will avoid adverse effects on the life-supporting capacity of the freshwater and its ecosystems; and
- The extent to which any more than a minor adverse effect would result from the discharge and could be avoided.

The Assessment of Surface Water Quality Effects concludes that, in terms of current water quality:

- There are no physical stressors of concern at the monitoring sites and these are consistent with the level of urban development in the catchments.
- Elevated values were recorded for zinc and copper, although this is to be expected of the existing urbanised stormwater catchments.

During construction, sediment discharges will be controlled under the CESCPs developed in accordance with the principles outlined in the Assessment of Construction Water Management. During operation, the overall quality of stormwater being discharged from SH1 and SH18 will be improved in comparison to the existing situation. The Assessment of Surface Water Quality Effects concludes that the effects of sediment discharges from construction and stormwater discharges during operation on water quality will be no more than minor. Similarly, the Assessment of Freshwater Ecological Effects has concluded that the effects of these discharges on the receiving environments will be no more than minor. In addition, during the operational phase, the proposed enhanced stormwater quality treatment of existing impervious areas will result in the overall loads of key metals from the Project's impervious areas being reduced. This means the Project will have a net beneficial effect on stormwater quality and the downstream water quality and to the mauri of freshwater resources.

Policy E1.3.9 seeks to minimise or mitigate new adverse effects of stormwater runoff. Policy E1.3.10 requires the Council in taking an integrated stormwater management approach to have regard to a number of factors including the nature and sensitivity of the receiving environments and the need to minimise adverse effects on those receiving environments. Approximately 99% of the discharges from the new and existing HURs will be treated in accordance with TP10 to 75% TSS removal. Some of the discharges will be to the Council's stormwater management system to be discharged in accordance with its NDC. As outlined above, the remaining discharges to the receiving environment will not have a significant impact on the receiving environment and therefore ensures the Project meets the requirements of both of these policies.

Policy E1.3.12 requires stormwater runoff from high use roads to be managed to minimise adverse effects and progressively reduce existing adverse effects on the receiving environment. Policy E1.3.13 requires the management of stormwater quality and flow management to be generally achieved on-site or downstream if there is a communal device or facility. The Project will a mixture of stormwater wetlands, swales and proprietary devices to ensure that all the new high use road and a significant proportion of the existing high use road is treated to achieve 75% TSS removal. This is a significant improvement from the existing level of treatment.

Policy E1.3.14 requires the adoption of the best practicable option to minimise the adverse effects of stormwater discharges from infrastructure including roads, having regard to a list of factors. Set out below is how the factors relevant to the Project have been addressed:

- The BPO as set out in section 2 of the RMA – A comprehensive BPO analysis has been undertaken for both construction and operational discharges as set out in the Assessment of Construction Water Management and the Assessment of Stormwater Management;
- The scale and significance of the adverse effects – As set out in the Assessment of Freshwater Ecological Effects, the potential effects of the discharges on the receiving environment have been assessed and given that the proposed stormwater management approach will result in an improvement on the existing environment, the effects are considered to be no more than minor; and
- Operational requirements and space limitations – Space requirements within this confined urban corridor have limited the wetland size that can be provided. The need to provide stormwater detention to prevent flooding has generally restricted the type of stormwater device that can be used to devices that will provide that attenuation. There is limited space to incorporate treatment swales into the Project design. However, two treatment swales have been provided at Rosedale Road. In addition, two proprietary devices are proposed.

In accordance with Policy E1.3.26, the potential adverse effects of construction on freshwater quality will be prevented or minimised by adopting best management practices in accordance with TP90 and the requirements set out in the approved CSMP and the Landfill Management Plan.

Erosion and sediment control devices as described in the Assessment of Construction Water Management will ensure that potential effects arising from sediment runoff generated by construction of the Project are effectively managed. Runoff produced within the excavations at the Rosedale Closed Landfill will be treated as if highly contaminated and leachate is to be treated as trade waste and disposed of at an appropriate waste facility.

Based on the above the Project is considered consistent with the objectives and policies of the AUP as they relate to water quality and integrated management.

11.7.2.3 E2 Water quantity allocation and use

Objective E2.2.1 provides that water in surface rivers is available for use provided the natural values of water are maintained and established limits are not exceeded. The reclamation of a stormwater drainage channel that is classified as a ‘stream’ under the AUP is required as part of the Project. This stormwater discharge will be diverted into a new pipe and discharged into the stormwater network in a different location. This diversion will not impact on the natural values of water or result in any limits being exceeded

Policy E2.3.22 requires proposals to divert surface water to demonstrate that the diversion will to the extent practicable avoid significant adverse effects and remedy or mitigate other adverse effects on existing buildings, structures and services, existing flood hazard risks, people and communities and the life supporting capacity of freshwater ecosystems.

Policy E2.3.23 requires proposals to divert groundwater to ensure that the proposal avoids, remedies or mitigates any adverse effects on people and communities and does not cause or exacerbate any flooding.

Full detention of the 95th and 90th percentile rainfall events is provided for the Project by using wetlands and/or dry ponds, without any reduction allowance for retention. Some minor increases in flood levels will be experienced by a small number of properties but the flood risk will also be significantly improved at a number of properties. Overall, the flood risk has been managed to avoid adverse effects on flooding as far as practicable.

Based on the above the Project is considered consistent with the objectives and policies of the AUP as they relate to water quantity allocation and use.

11.7.2.4 E3 Lakes, rivers, streams and wetlands

Chapter E3 manages the effects of activities within the beds of lakes, rivers and streams. The introduction to the chapter notes that there is a balance to be struck between the need to provide for the urban growth including the requirements of infrastructure and the need to protect, maintain and enhance lakes, rivers streams and wetlands.

For the purpose of this assessment, the RWWTP has been considered as a 'lake'. However, as outlined in the Assessment of Freshwater Ecological Effects, the ecological values within the lake are low. Works are required to raise the causeway to accommodate the Busway and SUP. Due to the location of the existing SH1 carriageway being a causeway between two oxidation ponds at the RWWTP, the raising of the causeway will necessarily require works to occur in the confines of the ponds. The Project will also affect a number of streams within the Project area, including the construction of several outfalls and the reclamation of a 'stream' south of Pond 1 within the RWWTP.

The objectives in E3.2 focus on ensuring that lakes, rivers, streams and wetlands with high natural values are protected from degradation and permanent loss, that significant adverse effects are avoided, remedied, mitigated or offset and that structures are provided for where there is a functional or operational need for the structure to be in that location. As set out in the Assessment of Freshwater Ecological Effects, none of the streams or stormwater wetlands affected by the Project have high natural values. The corresponding policies (Policy E3.3.5 and Policy E3.3.7) require significant adverse effects to be avoided and other adverse effects to be remedied or mitigated where practicable within SEAs and the beds of lakes and rivers. There are streams in the wider catchment with higher values and the Project has been designed to avoid aquatic habitats where possible; improve stormwater inputs to aquatic habitats by increasing the number of stormwater retention devices; increase the capacity and retention of the stormwater system; replace most stormwater ponds that are required to be relocated with stormwater wetlands, thereby increasing the quality of stormwater entering the streams; and where impacts on aquatic systems are unavoidable mitigate any adverse effects.

Reclamation of the stream within the RWWTP cannot be avoided due to locational and design constraints to upgrade the infrastructure, and stormwater will be directed to other watercourses and wetlands. That approach is consistent with Objective 3.2.6.

Works within the SEA over Ponds 1 and 2 are required to raise the causeway to accommodate the busway and SUP. These works will not result in significant adverse effects in terms of the aquatic or terrestrial ecology at the RWWTP and within the ponds. There are no other options for the location of the busway or the SUP other than to extend the causeway to accommodate the additional lanes adjacent to the existing SH1 carriageway. The RWWTP ponds are man-made structures that form part of the treatment system and provide final treatment of wastewater prior to its discharge into the receiving environment. The ecological values within the ponds are low. The water within the ponds is not of significance to Mana Whenua nor is it considered to significantly contribute to the mauri of the freshwater environment.

The existing slopes (or batters) of the causeway are 'man-made'. The Assessment of Freshwater Ecological Effects concludes that the overall ecological values of the RWWTP and nearby watercourses are low in the areas where works are proposed.

Minor works are proposed within Lucas Creek and Alexandra Stream. A stormwater outfall is proposed within Lucas Creek to the east of the Oteha Valley interchange and a new rip-rap apron is proposed within Alexandra Stream. The potential impact of these works on the terrestrial and aquatic ecology is assessed in the Assessment of Freshwater Ecological Effects and Assessment of Terrestrial Ecological Effects (**Technical Assessment 13**). Mitigation planting is proposed in relation to any

vegetation removal required as part of the proposed works in these streams on a 'like for like' and 'no net loss' basis.

Based on the above the Project is considered consistent with the objectives and policies of the AUP as they relate to lakes, rivers streams and wetlands.

11.7.2.5 E10 Stormwater management area – Flow 1 and Flow 2

Stormwater management areas seek to protect and enhance Auckland's rivers, streams and aquatic biodiversity in urban areas. Objective E10.2.1 aims to ensure that high value rivers, streams and aquatic biodiversity in identified urbanised catchments are protected from further adverse effects of stormwater runoff associated with urban development and where possible enhanced. Policy E10.3.1 requires the management of stormwater runoff within SMAF 1 and 2 areas to minimise the effects of stormwater runoff to retain and where possible enhance stream naturalness, biodiversity, bank stability and other values. Policy E10.3.2 requires hydrological mitigation in SMAF 1 and 2 area where there are new impervious areas. Policy E10.3.3 recognises that there are limits to the hydrological mitigation that can practicably be achieved, particularly where there are space limitations.

The Project area is covered by both SMAF 1 and 2 overlays. As outlined above, full detention of the 95th and 90th percentile rainfall events is provided for the Project by using wetlands and/or dry ponds, without any reduction allowance for retention. This is achieved using controlled outlets in wetlands and dry ponds. Some additional outfall structures will be required and erosion protection will be implemented to control the flow of stormwater as it discharges to the receiving watercourse.

Based on the above, the Project is considered consistent with the objectives and policies of the AUP as they relate to SMAF 1 and 2.

11.7.2.6 E11 Land disturbance – Regional

The regional objectives and policies for land disturbance seek to manage the adverse effects (including cumulative effects) of land disturbance including sediment laden runoff and the impacts on the quality of water. The Project will generate large volumes of earthworks, in many cases on steep gradients and/or within a Sediment Control Protection Area (SCPA).

The objectives in E11.2 require that sediment generation from land disturbance is minimised and that adverse effects on the environment are avoided, remedied or mitigated. The corresponding policies require land disturbance to be managed by adopting the best practicable option for erosion and sediment control, managing the amount of land being disturbed, avoiding, remedying or mitigating adverse effects on accidental discoveries and maintaining the cultural and spiritual values of Mana Whenua. Provision is made for enabling land disturbance necessary for activities to provide for people and communities social, economic and cultural well-being and their health and safety.

The construction of the Project will be undertaken using a staged approach so the area of earth exposed will be as minimised as far as practicable. Compliance will be achieved with TP90 and an erosion and sediment control plan will be prepared as a part of the CEMP.

Earthworks will to be monitored closely throughout the duration of construction works and stockpiles will be located in dedicated construction areas away from waterbodies and watercourses. Sampling of stockpiled soils is to occur prior to disposal methods being undertaken to ensure that any contaminated soil is disposed of appropriately.

Policy E11.3.2 requires management of land disturbance and the CESCPs developed for the Project will address all of the matters referred to in this policy through the implementation of a suite of methodologies for specific activities, as described in **Section 9**. This will ensure that management of land disturbing activities is consistent with this policy.

Policy E11.3.4 allows for land disturbance where it is necessary for the social and cultural well-being of people and communities and for their health and safety. The Project, which involves State highway improvements for efficiency and safety purposes, and the provision of a busway and SUP, supports this policy.

Policy E11.3.5 requires that earthworks are to be designed and implemented with recognition of environmental site constraints and integrated water principles. The Project has considered this to date and proposes erosion and sediment control measures appropriate for the management of different construction activities. Through the development and implementation of these measures the Project will meet the requirements of Policy E11.3.5.

There are several watercourses and waterbodies within the Project area and therefore Policy E11.3.7 is of particular relevance to the Project as it requires the management of sediment-laden discharges to avoid generating adverse effects on high value areas. As outlined above, a CESCP is proposed in addition to the preparation of a CEMP to manage sediment generation and minimise the likelihood of sediment and any associated contaminants from entering freshwater bodies within the catchment or the AC stormwater network.

The Lucas Creek area has been identified by Mana Whenua at a Project hui on 4 August 2016 as a place of value. The installation of the culvert and new outfall will occur downstream of the sensitive part of the watercourse which has been identified by Mana Whenua. The area of particular importance to Mana Whenua has been avoided. The design response has been to minimise impacts on riparian planting where possible and to implement mitigation planting.

Based on the above the Project is considered consistent with the objectives and policies of the AUP as they relate to land disturbing activities.

11.7.2.7 E13 Cleanfills, managed fills and landfills

Although the Chapter E13 does not does not contain any rules in relation to the proposed works at the Rosedale Closed Landfill, the objectives and policies are still relevant.

Objective E13.2.2 focusses on ensuring that human health is protected from the adverse effects of closed landfills and Policy E13.3.5 requires management to contain contaminants and tailor aftercare appropriate to the type of material contained within the Rosedale Closed Landfill. This objective and policy apply to both the works in the Rosedale Closed Landfill and the space around it after construction has been completed. A Landfill Management Plan will be prepared in conjunction with AC's Landfill Management Team which will outline the construction methodology and the measures to be implement to protect human health and the environment from any potential adverse effects that may arise from working within the Rosedale Closed Landfill. During the construction process, leachate will be collected to a treatment device and/or discharged to sewer as trade waste or to an approved disposal facility. As noted above, all refuse will be removed from the area to be occupied by the busway and SUP and a new sidewall liner will be provided. Any affected landfill infrastructure will be reinstated (including a monitoring network) and a two-tier system implemented for preventing lateral migration of landfill gas. CLCLR has been closely involved in the review of these designs, and is in principle in support of the Project which achieves their principal objectives

The proposed management approach for the Rosedale Closed Landfill is consistent with the objectives and policies of the AUP as they relate to clean fills, managed fills and landfills.

11.7.2.8 E14 Air quality

The objectives in E14.2 aim to:

- Maintain air quality where it is high;
- Ensure that air discharges meet the AAAQS;

- Protect human health and the environment from significant adverse effects; and
- Ensure incompatible uses are separated.

Objective E14.2.5 also recognises that the operational requirements of infrastructure need to be recognised and provided for.

The corresponding Policy E14.3.2 similarly require air discharges to be managed to avoid adverse effects on human health and the environment.

There is a high risk of dust being generated through land disturbance activities associated with the Project. There are some sensitive activities including residential areas to the south of SH18 and the east of SH1 that are likely to be affected if dust generation is not adequately managed. Potential dust effects are responsive to a range of tested management and avoidance techniques that can be applied systematically to ensure that such mobilisation can be generally avoided and if not, then minimised. A Dust Management Plan is proposed to manage the impact of airborne contaminants and dust. For example, stockpiled areas of materials are to be covered in high winds to ensure that materials do not become airborne, with works areas being sprayed with water until they are damp prior to earthworks to minimise dust generation.

A detailed Technical Assessment of the potential adverse operational effects associated with the Project and network under a range of scenarios has been undertaken and is included within the technical assessment. These scenarios calculate ground level concentrations of pollutants discharged from the vehicles that utilise the road system. This assessment identified that any exceedance of relevant air quality standards is unlikely to occur. In broader terms, at the air shed scale the Project is likely to result in a small net improvement to regional air quality relative to the Project not being built.

Based on the above the Project is considered consistent with the objectives and policies of the AUP as they relate to air quality.

11.7.2.9 E15 Vegetation management and biodiversity

The vegetation management and biodiversity objectives and policies seek to protect areas of indigenous biodiversity, particularly sensitive areas. However, Chapter E15 covers only those areas not identified as SEAs (SEAs are addressed in Chapter D9 SEA Overlay).

The objectives in E15.2 aim to:

- Maintain or enhance ecosystems and indigenous biological diversity values while providing for appropriate subdivision, use and development (E15.2.1); and
- Restore and enhance indigenous biodiversity in areas where values are degraded or development is occurring (E15.2.2).

The policies in E15.3 focus on protecting areas of contiguous indigenous vegetation cover and managing the effects of activities to avoid significant effects as far as practicable, minimise significant adverse effects where avoidance is not practicable and avoid, remedy or mitigate other adverse effects. Policy E15.3.3 encourages offsetting of any significant residual effects.

The terrestrial ecological values within the Project area are generally low which is unsurprising given the urban landscape. The vegetation is predominantly planted landscaping areas. Some vegetation removal potentially including native vegetation adjacent to the Alexandra Stream SEA will be required. While some vegetation removal will be necessary to facilitate the construction of the Project, clearance will be minimised wherever possible and mitigation planting will be undertaken in accordance with the Landscape Management Plan prepared using the principles of the UDLF.

Mitigation planting for the Project will be over 30ha with an additional 5.9ha of planting and street trees proposed. Other mitigation measures relevant to vegetation management and biodiversity are the relocation of native fish, the Lizard Management Plan, and the Avifauna Management Plan as

proposed as draft conditions of designations and resource consents. Reclamation of the stream south of Pond 1 is proposed, but this watercourse is highly modified within a concrete channel with low ecological value. There is limited opportunity to implement riparian planting at that location, but it will be implemented along other watercourses where it will enhance the habitat within and along the watercourse and the new wetlands that will provide new habitat for the area.

Based on the above the Project is considered consistent with the objectives and policies of the AUP as they relate to vegetation management and biodiversity.

11.7.2.10 E26 Infrastructure

Chapter E26 recognises the critical role of infrastructure in providing for the social, economic and cultural well-being of people and communities. Chapter E26 also acknowledges that as well as benefits, infrastructure can have adverse effects on the environment, visual amenity of an area, and public health and safety.

Objective E26.2.1.1 and Policy E26.2.2.1 recognise the benefits of infrastructure including enabling economic growth, development and enabling the transportation of freight, goods and people. Objective 26.2.1.3 aims to enable safe, efficient, and secure infrastructure which are all outcomes of the Project. Objective E26.2.1.4 and Policy E26.2.2.2 support the Project since they provide for the development, operation, maintenance, repair, upgrade, and removal of infrastructure throughout Auckland. Policy E26.2.2.4 focuses on avoiding, remedying or mitigating the adverse effects of infrastructure. Section 1 describes the importance of the Project as a key component of the WRR which upon completion will enable economic growth, unlock potential for development along its length by improving trip reliability and access from the west to the south and north of the region, and from the CBD to the airport. **Sections 9 and 10** contain a detailed analysis of the potential adverse effects of the Project and the mitigation measures proposed.

Policies E26.2.2.5 and E26.2.2.6 require a number of matters to be considered when assessing the effects of infrastructure and these have been addressed as follows:

- The degree to which the environment has already been modified – **Section 4** describes the existing environment. In summary, the existing environment is highly urbanised with the existing transport corridor, adjacent business, commercial and industrial uses and established residential neighbourhoods in Unsworth, Pinehill and Fairview Heights;
- The nature, duration, timing and frequency of the adverse effects, the extent of existing adverse effects and potential cumulative adverse effects, and the type, scale and extent of adverse effects on identified values or features (and whether they should be avoided pursuant to any NPS, NES or RPS) – A summary of the potential adverse effects of the Project is set out in **Section 9** and an analysis of the relevant NPS, NES and RPS is included within this Section above;
- The impact on the network and levels of service if the work is not undertaken, the need for the infrastructure in the context of the wider network, the benefits provided to the communities within Auckland and beyond and the need for the Project to enable an effective and efficient network – Project will have numerous benefits for transport within the Project area and beyond including more efficient connections between SH18 and SH1 (north) ensuring effective continuity of capacity, greater reliability of travel times for bus travel through to Albany Bus Station and additions and enhancements to walking and cycling facilities. In summary, overall, the Project will increase traffic volumes on SH1 and SH18 while generally reducing volumes on the local road network for the benefit of local traffic, public transport and walking and cycling modes;
- Whether the infrastructure has a functional or operational need to be located in or traverse the proposed location and whether there are any practicable alternatives to avoid or reduce adverse effects – A thorough assessment of alternatives has been undertaken as set out in Section 7 of this AEE. The existing location of SH1, SH18 and the Constellation and Albany Bus Stations has influenced the design of Project; and

- How the proposed infrastructure contributes to the strategic form or function or enables the planned growth and intensification of Auckland – The Project will enhance the capacity and efficiency of movement, for people and freight travelling within Auckland, and between Auckland and the north.

The specific policies relating to the road network in E26.2.2.14 and E.26.2.2.15 focus on the following:

- Avoid, remedy or mitigate adverse effects on residential or other sensitive activities, the amenity values of adjoining properties and the streetscape, including construction effects – The mitigation measures proposed are outlined in **Section 10**;
- Maintain or enhance the safety and efficiency of the transport network – As outlined above, the Project will enhance the capacity and efficiency of movement, for people and freight travelling within Auckland, and between Auckland and the north. Extensive safety improvements are proposed as part of the Project as outlined in **Section 2.3.10**; and
- Provide for the needs of all road users and modes of transport – The Project involves improvements to the road, walking and cycling networks and an extension of the Busway.

The Project is in full accordance with the objectives and policies of the AUP as they relate to infrastructure. The Project benefits Auckland and New Zealand as a whole through the provision of a safe, resilient and efficient transport network that supports social, economic, cultural and environmental benefits while avoiding, remedying or mitigating potential adverse effects.

11.7.2.11 E27 Transport

Chapter E27 contains specific objectives and policies relating to transport. Objective E27.2.2 aims to provide an integrated transport network including public transport, walking, cycling, private vehicles and freight. The Project is consistent with this objective since it will provides for all of these modes of transport.

Objective E27.2.5 prioritises pedestrian safety and amenity along public footpaths and Policy E27.3.14 aims to support increased cycling and walking, and the SUP is consistent with this objective and policy in providing for cycling and walking and in a location with high amenity for users away from roads.

11.7.2.12 E30 Contaminated land

Chapter E30 addresses contaminant discharges that are not covered by the NES_{Soil}, including direct discharges from soil disturbance, passive discharges over longer time periods, legacy discharges and the assessment of risk from on-going discharges.

Objective E30.2.1 aims to manage the discharge of contaminants to protect the environment and human health, and to enable land to be used for suitable activities now and in the future. Policy E20.3.2 requires any use or development of contaminated land resulting in discharges to air, land or water to manage or remediate contamination to a level that allows contaminants to remain in the land (without significant adverse effects on human health or the environment), avoids adverse effects on potable water supplies and avoids, remedies or mitigates significant adverse effects on ecological values, water quality, human health and amenity values. Physical and operational constraints, financial costs, the BPO and the disposal of contaminated material need to be taken into account when considering how to manage the adverse effects of contamination.

Potentially contaminated land has been identified in various locations throughout the Project area. As a DSI for these sites has not been produced, the exact contaminants and their concentrations have not yet been established.

A draft CSMP has been prepared to provide a detailed methodology for the management of contaminated land and the proposed measures to be undertaken to ensure risks to human health and the environment are minimised. As part of the finalisation of the CSMP, a DSI is underway and the results will be used to classify the material present on site and develop site specific remedial action plans appropriate to any identified risks.

Based on the above the Project is considered consistent with the objectives and policies of the AUP as they relate to contaminated land.

11.7.3 District Plan Provisions in the AUP

The relevant district level objectives and policies for the Project are outlined below.

11.7.3.1 E12 Land disturbance – district

Objective E12.2.1 provides that land disturbance should be undertaken in a manner that protects the safety of people and avoids, remedies or mitigates adverse effects on the environment. The corresponding policies in E12.3 largely mirror those outlined in Chapter E11 above.

11.7.3.2 E16 Trees in open spaces and E17 – Trees in roads

Some vegetation removal is required within existing open space zoned land. Objective E16.2.1 aims to protect trees in open space zones that contribute to cultural, amenity, landscape and ecological values. Objective E16.2.2 seeks to increase the quality and extent of tree cover in open space zones particularly within areas identified for intensified living. Policy E16.3.3 encourages the use of indigenous trees and vegetation for planting within open space zones where appropriate. Vegetation removal within open spaces will be kept to a minimum and mitigation planting will be implemented with a view to use indigenous trees and vegetation.

In addition, in order to accommodate the Project, some trees within the existing SH1 and SH18 road corridor will be removed. Replacement planting is proposed in order to balance the locational requirements of the road network with the ecological and amenity values of trees within road corridor. This approach is consistent with Objective E17.2.3 and Policy E.17.3.1 which aim to balance the safe and efficient development of the road network with the protection of trees in roads.

11.7.3.3 E24 Lighting

Policy E24.3.2 requires the intensity, location and direction of artificial lighting to avoid significant glare and light spill onto adjacent sites, maintain safety for road users and minimise the loss of night sky viewing.

Lighting is addressed in **Section 5.6.6** of the AEE. The proposed lighting will comply with the relevant provisions of the AUP, in particular in relation to sensitive neighbouring activities such as residential sites. Accordingly, the Project is consistent with the policies relating to lighting glare and spill.

11.7.3.4 E25 Noise and vibration

The relevant objectives in E25.2 aim to ensure that:

- People are protected from unreasonable levels of noise and vibration (E25.2.1);
- The amenity values of residential zones are protected from unreasonable noise and vibration, particularly at night (E25.2.2); and
- Construction activities that cannot meet noise and vibration standards are enabled while controlling duration, frequency and timing to manage adverse effects (E25.2.4).

Policy E25.3.2 requires activities to minimise, where practicable, noise and vibration at its source to mitigate adverse effects on adjacent sites. The mitigation approach for operational noise is set out in the Assessment of Operational Noise and Vibration Effects (**Technical Assessment 9**) and includes the use of a low noise road surface, noise barriers where appropriate and building modification where necessary.

Policy E25.3.5 prevents significant noise-generating activities other than roads and railway lines from establishing in or immediately adjoining residential zones. This recognises the essential role of roads and railway lines in servicing communities even to the extent that they may generate significant noise.

Policy E25.3.10 requires construction activities to avoid, remedy or mitigate adverse effects while having regard to the sensitivity of the receiving environment, the duration and hours of operation and the practicality of complying with permitted noise and vibration standards. As set out in the Assessment of Construction Noise and Vibration Effects (**Technical Assessment 3**), a thorough regime of noise management will be required to ensure that noise and vibration effects are mitigated as far as practicable. This management approach, which is typical of any large infrastructure project, will include noise and vibration monitoring along the route, clear communication with the public, condition surveys of dwellings likely to receive high levels of vibration and strategies for mitigation such as resident relocation where necessary. That approach is consistent with the objectives and policies relating to noise and vibration.

11.7.3.5 E36 Natural hazards and flooding

Objective 36.2.4 acknowledges that where infrastructure has a functional or operational need to locate in a natural hazard area the risk will be managed by avoiding adverse effects and, if avoidance cannot be achieved, mitigating any residual effects to the extent practicable.

Policy E36.3.4 controls subdivision, use, and development of land that is subject to natural hazards so that risks are not increased and, where practicable, are reduced.

Policy E36.3.21 requires all development in the 1 per cent AEP floodplain to not increase adverse effects from flood hazards or increased flood depths and velocities, to other properties upstream or downstream of the site.

Policy E36.3.23 provides for flood mitigation measures which reduce flood-related effects and culverts and bridges do not increase flood hazards upstream or downstream. Policy E36.3.27 supports the construction and maintenance of flood mitigation works to reduce flood risks to people, property, infrastructure, and the environment.

Stormwater devices in the form of wetlands, detention ponds and swales are proposed for the Project and will control the risk of flooding and minimise the exposure of flood risk to vulnerable properties. As outlined above in relation to the flooding objectives and policies in the RPS, full detention of the 95th and 90th percentile rainfall events is provided for the Project by using wetlands and/or dry ponds, without any reduction allowance for retention. Some minor increases in flood levels will be experienced by a small number of properties but the flood risk will also be improved at a number of properties. The Project is required to be located adjacent to the existing State highways and the extension to the Busway so there is a functional need to locate the Project in this area, and as a consequence the flooding effects have been managed to as far as practicable. Overall, the flood risk has been managed to avoid adverse effects on flooding as far as practicable to ensure that the Project is in accordance with these objectives and their related policy.

11.7.4 Summary

A thorough analysis of relevant objectives and policies has been undertaken. The Project is deemed to be consistent with the objectives and policies of the AUP (regional and district) for the following key reasons:

- The Project involves the construction of transport infrastructure that is specifically recognised as a key element in servicing the growth envisaged for the region;
- As set out above and in **Section 10**, the potential adverse effects of the Project will be appropriately avoided, remedied, or mitigated; and
- The Project will result in some significant positive effects as set out in **Section 9.2**:
  - There will be a wide range of travel-time savings for both private vehicles and public transport, congestion on the local network will be reduced and the Project will be built to a higher safety standard;

- The establishment of the SUP for the full extent of the Project will positively affect the modal choice available.
- There is likely to result in a small net improvement to regional air quality relative to the Project not being built; and
- The quality of the stormwater discharges from within the Project area will be improved.

11.8 Auckland Council Regional Policy Statement

The following regional policy statement objectives and policies from the AUP that are relevant to the Project are subject to appeal:

- Urban Growth and Form Objective B2.5.1.1; and
- Urban Growth and Form Policy B2.2.2.4.

The following assessment considers those objectives and policies from the Auckland Council Regional Policy Statement which align with the appealed objective and policy noted.

11.8.1 Strategic Objectives

Strategic Objectives 2.6.1.1 and 2.6.1.3 seek to accommodate the region's growth in a compact form that is well designed and more sustainable by reference to the purpose and principles of the RMA. Those strategic objectives and those that follow (2.6.1.4, 2.6.1.6, 2.6.1.12, and 2.6.1.17) are relevant to the Project since transport systems are recognised as having a role in enabling this growth to occur in a manner that is efficient and sustainable. The Project involves redevelopment and changes to different modes of transport (i.e. private vehicles, public transport, walking and cycling) providing for more efficient travel times in around commercial and industrial centres, and is therefore in accordance with these relevant objectives.

11.8.2 Strategic Policies – Land Use and Transport Integration

Strategic Policy 2.6.11.1 seeks to integrate land use and transport and sets the policy framework for ensuring that transport corridors are not compromised by subdivision and development and the outcomes expected for the transport network that improvise connectivity, safety, efficiency, and improves links for all modes of transport. The Project achieves this by the various components (Busway, road, and the SUP) and is therefore in accordance with this policy.

Strategic Policy 2.6.11.2 goes further in providing for similar outcomes relating to land use and transport integrating high density centres along intensive corridors. The bus stations, redevelopment of the SH1 and SH18 routes, and the SUP, are all in accordance with supporting this policy since they are intensive corridors supporting high density centres, and multi-modal transport options.

11.8.3 Strategic Policies – Infrastructure

Strategic Policy 2.6.14 for infrastructure makes reference back to the strategic direction of the ACRPS, the Regional Growth Strategy, and the objectives and policies described immediately above. The Project represents redevelopment of regional significant infrastructure and supports the strategic growth objectives for a compact urban form and in a manner that avoids, mitigates, or remedies significant adverse effects. As a consequence, and for the reasons outlined above, the Project is also in accordance with these strategic policies for infrastructure.

11.8.4 Summary

The Project is consistent with the relevant objectives and policies of the ACRPS since it involves the construction of regionally significant transport infrastructure which supports the strategic objectives for the region's growth in a manner that is efficient and sustainable while avoiding, mitigating, or remedying adverse effects.

11.9 Auckland Regional Plan: Air, Land and Water

The following regional objectives and policies from the AUP that are relevant to the Project and subject to appeal are:

- SEA overlay policies D9.3.1, D9.3.2 and D9.3.6 (managing the effects of activities on indigenous biodiversity values in SEAs); and
- Vegetation management and biodiversity policies E15.3.2 (managing effects to avoid significant adverse effects on biodiversity), E15.3.4 (protecting, restoring and enhancing biodiversity when undertaking new development), E15.3.7 (managing adverse effects from the development of infrastructure recognising that it is not always practicable to locate or design infrastructure to avoid areas with indigenous biodiversity values).

An assessment of the corresponding objectives and policies from the ACRP:ALW is set out below.

11.9.1 Objectives – Natural Values

Objectives 2.1.3.1, 2.1.3.2, 2.1.3.3, and 2.1.3.4 are relevant to the project since they seek to provide for sustainable management of natural values, particularly relating to the natural character and quality of wetlands, lakes, and rivers, and their margins, and protecting significant indigenous terrestrial and aquatic vegetation and habitat.

The Project will enhance and protect existing natural values through improvements to stormwater management, revegetation, creation of new wetland habitats and measures to protect lizards, native birds and native fish.

11.9.2 Policies – Natural Character

Policies 2.1.4.1, 2.1.4.2, 2.1.4.3, 2.1.4.4, and 2.1.4.5 relate to the natural character of wetlands, lakes, and rivers and their margins and seek to avoid, remedy, or mitigate adverse effects on the natural character of permanent rivers and streams in urban areas with high ecological, habitat or water quality values.

The watercourses of low to moderate ecological value as assessed in the Assessment of Freshwater Ecological Effects, and are highly modified in the case of those in the RWWTP. The temporary adverse natural character effects are interim effects only and would reduce once the Project is complete as outlined in the Assessment of Landscape and Visual Effects (**Technical Assessment 8)**, and that following mitigation, it is concluded that permanent adverse natural character effects at the completion for the Project can be managed and mitigated to result in low adverse effects overall. Furthermore, the natural character of the area will be enhanced through the addition of new wetlands for stormwater management. As a consequence, the Project is in accordance with these policies relating to natural character.

11.9.3 Policies – Ecosystems and Habitats

Policy 2.1.4.6 approach to permanent rivers and streams in urban areas is to maintain ecosystems and habitats as far as practicable where they are assessed as having significant ecological, water quality, and habitat values, and to enhance degraded ecosystems and habitats and water quality where practicable.

As noted for Chapter E3 of the AUP, the Project involves minor works are proposed within Lucas Creek and Alexandra Stream. The ecological value of these areas is low and the potential impact of these works on the terrestrial and aquatic ecology is assessed in the Assessment of Freshwater Ecological Effects and Assessment of Terrestrial Ecological Effects. Mitigation planting as part of the proposed works in these streams may assist in enhancing their value as potential ecosystems and habitats. Stormwater management will also enhance water quality through treatment to remove contaminants including sediment.

Policy 2.1.4.7 specifically addresses fish passage and modifying existing artificial barriers of dams, weirs, or culverts where it is practicable.

New culverts, under the proposed intersection of SH1 and SH18, between UHH and RWWTP Pond 1, and the proposed stormwater wetlands will result in the loss or modification of up to 602m of very poor quality aquatic habitat. Fish passage is not a consideration in this area, as there is no upstream native fish habitat (the catchment is fully urbanised and culverted); there are significant barriers downstream, including vertical manholes; and there is currently only very poor quality habitat for native fish (exposed, concrete drains). The Assessment of Freshwater Ecological Effects concludes that the Project will not adversely affect fish passage at other locations.

Policy 2.1.4.8 addresses land disturbance, and discharges of contaminants or other activities affecting water quality and impacts on areas of terrestrial indigenous vegetation, and habitats of terrestrial indigenous fauna that have been identified to be of significance. The ACRP:ALW provides a guide to the determining the significance of the ecosystem based on:

- Schedules in the plan;
- Appendix B of the ACRPS, the Auckland Conservation Management Strategy, or a significant area in any district plan;
- A published Protected Natural Area report; or
- Habitat of any nationally or regionally threatened, rare, or endangered species.

There are no Urban Lake Management Areas, Wetland Management Areas, or Natural Stream Management Areas or other areas within schedules of the ACRP:ALW that fall within the Project area. Of the other criteria, these do not apply except that the Project area may contain habitat for threatened, rare, or endangered species as discussed in the Assessment of Freshwater Ecological Effects and the Assessment of Terrestrial Ecological Effects. However, this is unlikely to apply to aquatic ecology since it will not be classed as significant based on its low to moderate value if those species are found to be present. Notwithstanding this, the effects of the Project from land disturbance, on water quality, indigenous vegetation, and habitats of fauna are all to be avoided, remedied, or mitigated to the extent that there is no significant effect that remains and discussed above.

Policy 2.1.4.9 provides guidance on assessing the effects of use and development on natural character and terrestrial and aquatic ecosystems and minimising impacts of discharges where a best practicable option is to be used.

As outlined in Chapter B7.4 of the AUP above, in overall terms, and the proposed conditions and associated management plan based approach for stormwater management will ensure the Project minimises the discharge of contaminants to the extent that it will be in accordance with Policy 2.1.4.9.

11.9.4 Policies – Environmental Compensation

Policies 2.1.4.10 and 2.1.4.11 describes how adverse effects of use and development may be offset by mitigation measures elsewhere within the region where they cannot be avoided, or directly remedied or mitigated, and further that areas of high natural character of significant ecosystems should be avoided to the fullest extent practicable. No offset mitigation is proposed for this Project because the potential adverse effects are able to be appropriately avoided, remedied or mitigated within the Project area.

11.9.5 Summary

The Project is consistent with the relevant objectives and policies of the ACRP:ALW since it will involve mitigation planting, enhancement of degraded natural values and ecological values and otherwise avoid, remedy, or mitigate adverse effects relating to vegetation management, biodiversity, and significant ecological areas.

11.10 Non-statutory Planning Documents

Section 2.3 provides the strategic context for the Project with a discussion of the relevant non-statutory strategic documents. In summary, the Project is supported by these strategic documents for the following reasons:

- SHS promoted the upgrading of SH18 to part of a standard four lane road network and improving its connectivity to SH1;
- Roads of National Significance 2009 announced the WRR as one of the first seven RoNS;
- Accelerated Auckland Transport Projects Package 2013 announced priority would be given to three State highway projects in the Auckland region as an accelerated programme;
- NIP 2015 was first released in 2010 and a key component of this was the RoNS, and in 2015 this was updated with specific reference to the Accelerated Auckland Transport Package;
- GPSLT 2015 specifically references the Project and the Project is consistent with its priorities for economic growth and productivity, road safety, and value-for-money and with its objectives;
- NLTP 2015-18 identifies the components of the Project as key routes and investments that address both travel time reliability and transport choice;
- Draft State Highway Plan 2016/17 specifically references the Project in its Auckland Accelerated Programme;
- The Auckland Plan is a 20 to 30 year strategy for Auckland's growth and development that identifies the existing and future location and the mix of critical infrastructure that includes transport investment;
- Safer Journeys aims to improve transport system safety, and the Project contains a range of safety improvements including new margin and median barriers, additional lanes, and dedicated share use pedestrian and cycle paths; and
- New Zealand Transport Agency SOI 2015-2019 sets the overarching purpose for its transport solutions and contains objectives relevant to the project in integrating national and local transport networks, shaping efficient travel choices, providing greater resilience for the State highway network, and providing significant transport infrastructure. The Project relates to SH1 and SH18 to improve safety and efficiency and provides for travel choice (road, public transport, and pedestrians/cycles).

There are further non-statutory documents developed by AC that are relevant to, and supportive of, the Project as follows:

- The Long Term Plan 2012-2022 recognises that while roads continue to be a cornerstone of the Auckland, a multi-modal shift to public transport, and walking and cycling as transport solutions is required, and the Project provides for all of these modes of transport;
- The Regional Land Transport Strategy (RLTS) seeks to ensure that travel is quick, easy, and reliable between key destinations such as the regional growth centres and Auckland International Airport, and the Project is a series of improvements to provide for safer and more efficient travel;
- The Regional Public Transport Plan (RPTP) is to facilitate the Auckland Plan's goal of improved and more effective public transport to achieve a modal shift, and the Project extends the Northern Busway and provides the SUP to improve transport options; and
- Local Board Plans:
  - Hibiscus and Bays Local Board Plan places an emphasis on planning for growth, facilitating a strong local economy as well as excellent transport choices (public transport, cycleways and efficient roads) to provide for connected communities and easy access to community facilities that in turn support a sense of well-being, safety and connection to others; and
  - Upper Harbour Local Board Plan with the Project directly satisfying one of the outcomes sought which is for a well-connected and accessible Upper Harbour.

11.11 Summary

The Project is the subject of NoRs for alterations to existing designations in the AUP and new designations (Busway and SUP).

A resource consent will be required under the NES_{Soil} (Regulation 11) and the following regional resource consents are required to enable construction and operation of the Project:

- Applications for land use consents pursuant to sections 9 and 13 of the RMA;
- Applications for the taking, using, damming and diversion of water pursuant to section 14 of the RMA; and
- Applications for discharge permits pursuant to section 15 of the RMA.

Given the above assessment, this document supports the NoRs as outlined within **Section 1.3** and applications for the resource consents described within **Section 6.1**. The Project is consistent with the policy direction of the relevant planning documents, these being:

- NPS_{FM} since there will be an overall improvement of the water quality of the receiving environment, by removing contaminants and sediment from degraded streams with low to moderate ecological value, and enhancement of riparian planting;
- NPS_{ET} and NES_{ETA} since Transpower has been consulted and options to address effects on the electricity transmission network are being explored;
- NES_{AQ} since dust effects can be effectively managed through the Dust Management Plan and there will be a small net gain in air quality during operation following from efficiency improvements for traffic flows;
- NES_{Soil} as a consequence of the draft CSMP for the Project relating to areas outside the Rosedale Closed Landfill, and the LWRP and LHSP for the Rosedale Closed Landfill to effectively manage risks associated with land contamination;
- AUP (regional policy statement, regional plan, and district plan) since it is transport infrastructure that is specifically recognised as a key element in servicing the growth envisaged for the region, and that all of the discussion above and other sections of the AEE demonstrate that adverse effects will be avoided, remedied, or mitigated;
- ACRPS since it is transport infrastructure supporting the strategic objectives for the Region's growth in a manner that is efficient and sustainable while avoiding, mitigating, or remedying adverse effects;
- ACRP:ALW since it will involve mitigation planting, enhancement of degraded natural values and ecological values and otherwise avoid, remedy, or mitigate adverse effects relating to vegetation management, biodiversity, and significant ecological areas; and
- Non-Statutory Planning Documents that developed the RoNS and included the Project as an accelerated project.

The effects associated with the construction of the Project, such as dust, construction noise and vibration, sediment, contamination, vegetation removal, groundwater diversion and take, settlement, flooding and water quality are temporary in nature and can be managed and mitigated through implementation of an approved CEMP and a range of associated management plans required by the designation and resource consent conditions.

From an operational perspective, the Project has been designed to ensure that the longer-term visual impacts associated with larger structures and the corridor itself are mitigated to the extent practicable, through the requirement to adhere to design principles during detailed design and through planting. Noise levels are predicted to be generally within the same noise criteria category as would be the case without the Project. Flooding effects are largely avoided and the on-going potential effects associated with the discharge of gas, odour and leachate from the Rosedale Closed Landfill are also to be minimised. Stormwater discharges will be mitigated by a treatment system tailored to treat

contaminants to an acceptable standard and new culverts and structures will be designed to avoid or mitigate potential scour.

Overall, is consistent with the relevant objectives and policies of those statutory and non-statutory instruments discussed above.