Appendix S:

Statutory Assessment

National Policy Statement for Freshwater Management 2014 (Updated 2017)

Objectives	Assessment
Objective AA1 To consider and recognise Te Mana o te Wai in the management of fresh water.	Te Mana o te Wai has been considered and recognised in this application, particularly through the cultural assessment undertaken.
Objective A1 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, as affected by contact with fresh water; in sustainably managing the use and development of land, and of discharges of contaminants.	A key aim of the overflows consent is to provide for the essential growth and development of Gisborne while at the same time progressively reducing adverse effects on the environment. In terms of adverse effects of overflows on the life-supporting capacity, ecosystem processes and indigenous species of fresh water, these are considered to be no more than minor. In terms of safeguarding the health of people and communities affected by contact with freshwater, a range of public health measures are included within Council's operating procedures to reduce public health risk during and after an overflow event.
Objective A2 The overall quality of fresh water within a freshwater management unit 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.	Wastewater overflows, alongside a range of other landuses contribute to degraded freshwater quality and systems as described in Sections 5 and 6. This resource consent application seeks to progressively reduce overflows and hence existing adverse effects, including when taking into account the effects of future development. This approach is consistent with Objective A2, which seeks to maintain or improve the overall water quality in the Gisborne Urban FMU.
Objective A3 The quality of fresh water within a freshwater management unit is improved so it is suitable for primary contact more often, unless: a. regional targets established under Policy A6(b) have been achieved; or b. naturally occurring processes mean further improvement is not possible.	Through reducing the frequency and duration of overflow events and mitigation proposed through operational procedures, the adverse effects of wastewater on water quality will be reduced. This in turn contributes to making fresh and marine water suitable for bathing more often. However, as discussed in Section 5, bathing water quality is also affected by other sources.

Objective C1 To improve integrated management of fresh water and the use and development of land in whole catchments, including the interactions between fresh water, land, associated ecosystems and the coastal environment.	The overflows consent includes a range of mechanisms to manage land-based activities (particularly stormwater drainage) to reduce wastewater overflows to fresh water and the coastal environment.
Objective CA1 To provide an approach to establish freshwater objectives for national values, and any other values, that: a. is nationally consistent; and b. recognises regional and local circumstances.	Council has developed FMUs within the Waipaoa Catchment which are relevant to this application.
Objective D1 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 are given effect to.	A collaborative engagement approach has been undertaken. Tangata whenua values and interests have been identified through engagement and reflected in conditions of consent. These provide for tangata whenua to advise on, and contribute to, the implementation of the consent.
Policies	**Assessment**
Policy C1 By every regional council: a. recognising the interactions, ki uta ki tai (from the mountains to the sea) between fresh water, land, associated ecosystems and the coastal environment; and b. managing fresh water and land use and development in catchments in an integrated and sustainable way to avoid, remedy or mitigate adverse effects, including cumulative effects.	These matters are recognised and provided for in the TRMP.

New Zealand Coastal Policy Statement 2010

Objectives	Assessment
Objective 1 To safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems, including marine and intertidal areas, estuaries, dunes and land, by: ▪ maintaining or enhancing natural biological and physical processes in the coastal environment and recognising their dynamic, complex and interdependent nature; ▪ maintaining coastal water quality, and enhancing it where it has deteriorated from what would otherwise be its natural condition, with significant adverse effects on ecology and habitat, because of discharges associated with human activity	Coastal water quality will be maintained, and will be improved through a progressive reduction in overflow events and overflow volumes. Ecological effects associated with existing discharges have been assessed as minimal. However, any effects will reduce further with reduced overflows over time.
Objective 3 To take account of the principles of the Treaty of Waitangi, recognise the role of tangata whenua as kaitiaki and provide for tangata whenua involvement in management of the coastal environment by: ▪ recognising the ongoing and enduring relationship of tangata whenua over their lands, rohe and resources; ▪ promoting meaningful relationships and interactions between tangata whenua and persons exercising functions and powers under the Act; ▪ incorporating mātauranga Māori into sustainable management practices; and ▪ recognising and protecting characteristics of the coastal environment that are of special value to tangata whenua.	The principles of the Treaty of Waitangi and the role of tangata whenua has been taken into account in this application. An assessment of the cultural impacts of wastewater overflows has been undertaken by tangata whenua and a summary of this process is included in Section 7 of the application. Conditions of consent have been proposed that include greater provision for tangata whenua input into the implementation of the consent.
Policies	**Assessment**
Policy 21 Enhancement of water quality Where the quality of water in the coastal environment has deteriorated so that it is having a significant adverse effect on ecosystems, natural habitats, or water based recreational activities, or is restricting existing uses, such as aquaculture, shellfish gathering, and cultural activities, give priority to improving that quality by: c. where practicable, restoring water quality to at least a state that can support such activities and ecosystems and natural habitats;	During an overflow event, temporary restrictions on existing uses are required to protect human health. A range of overflow performance measures and associated targets have been developed. These demonstrate a programme of continuous improvement to reduce the number (and associated adverse effects) of wet weather overflow events and associated overflow volumes over time.

e. engaging with tangata whenua to identify areas of coastal waters where they have particular interest, for example in cultural sites, wāhi tapu, other taonga, and values such as mauri, and remedying, or, where remediation is not practicable, mitigating adverse effects on these areas and values	Dry weather overflows will continue to be managed in accordance with best practice to ensure they are managed to a practicable minimum and are responded to promptly and effectively.
Policy 23 Discharge of contaminants. 1. In managing discharges to water in the coastal environment, have particular regard to: a. the sensitivity of the receiving environment; b. the nature of the contaminants to be discharged, the particular concentration of contaminants needed to achieve the required water quality in the receiving environment, and the risks if that concentration of contaminants is exceeded; and c. the capacity of the receiving environment to assimilate the contaminants; and: d. avoid significant adverse effects on ecosystems and habitats after reasonable mixing; e. use the smallest mixing zone necessary to achieve the required water quality in the receiving environment; and f. minimise adverse effects on the life-supporting capacity of water within a mixing zone	An assessment of the receiving environment and ecological effects of discharges to the coastal environment has been undertaken by Coast and Catchment Ltd. They conclude that wet weather discharges do not have a substantial impact on water quality or benthic ecology in estuarine sections of Gisborne's rivers, and the ecological effects (of wet weather overflows) are relatively minor. This is because: ▪ overflow and corresponding river water quality analyses suggested that the effects of the monitored, wet weather discharges on urban river water quality, were below levels of ecological concern; ▪ the results of water quality monitoring were consistent with model predictions that suggest nitrogen, phosphorus and suspended solids concentrations from discharges will rapidly be diluted to levels well below those recorded in GDC's river monitoring programme; ▪ only minor changes in sediment quality were detected directly below two of the primary and secondary outfalls; ▪ adverse ecological effects were not apparent immediately below primary and secondary outfalls in lower river sections.
2. In managing discharge of human sewage, do not allow: a. discharge of human sewage directly to water in the coastal environment without treatment; and b. the discharge of treated human sewage to water in the coastal environment, unless: i. there has been adequate consideration of alternative methods, sites and routes for undertaking the discharge; and ii. informed by an understanding of tangata whenua values and the effects on them.	Although Council has consolidated its overflows points (wet weather), and there are no longer any direct discharges of wastewater to the CMA during wet weather, overflows are proposed within the tidal reaches of Gisborne's main waterways. Council has considered alternatives, but has concluded that reducing stormwater inflow at source is the most effective long term solution. Other options, for example storage, require substantial investment and do not address the cause of the overflows. Engagement with tangata whenua has informed the application and associated effects assessment.

Tairāwhiti Resource Management Plan

Part B: Regional Policy Statement	Assessment
B1 Tangata Whenua	
Objectives	
B1.2.1 Objective 1. To take into account the principles of the Treaty of Waitangi in the exercise of functions and powers under the Act.	An assessment of the cultural impacts of wastewater overflows has been undertaken by tangata whenua and a summary of this process is included in Section 7 of the application. Conditions of consent have been proposed that include greater provisions for tangata whenua to advise on and input into the implementation of the consent.
B1.3.1 Objective 1. To have particular regard to the concept of kaitiakitanga when managing the use, development and protection of natural and physical resources, in a way which accommodates the views of individual iwi and hapu.	
B1.4.2 Objectives 1. To promote, where practicable, the preservation and protection of sites of value to Māori. 2. To recognise and provide for the relationship of Māori with their culture, traditions, ancestral lands, and other resources.	
Policies	
B1.3.2 Policies 1. To consult with iwi and hapu on an individual basis to determine how kaitiakitanga can be recognised and integrated in the management of the use, development and protection of natural and physical resources in the Gisborne district. 2. To recognise and provide for the role and mana of kaitiaki as resource managers or guardians of local resources. 4. To take account any relevant planning document/s recognised by the appropriate iwi, hapu or marae.	As above, an assessment of the cultural impacts of wastewater overflows has been undertaken by mana whenua and a summary of this process is included in Section 7 of the application. Conditions of consent have been proposed that include greater provisions for tangata whenua to advise on and input into the implementation of the consent.
B1.4.3 Policies 1. To recognise that each iwi, hapu and marae has its own priorities and preference for the management of resources and to respect those priorities and preferences within the limits of the Act.	

B4 Coastal Environment	
Objectives	
B4.3.1 Objectives 3. Coastal water quality that is maintained or enhanced.	Coastal water quality will be maintained, and progressively enhanced through a reduction in overflow events (duration and frequency) and overflow volumes.
B4.4.1 Objectives 2. The protection of the integrity, functioning, resilience and quality of natural coastal processes, natural physical resources and biological communities in the coastal environment. 3. Restoration and rehabilitation of areas of the coastal environment where the integrity, functioning, resilience and quality of natural coastal processes, natural physical resources and biological communities has been degraded and appropriate remedial action can be taken.	A key finding of the attached Ecology Report is that wet weather discharges do not have a substantial impact on water quality or benthic ecology in estuarine sections of Gisborne's rivers. Further, biological communities are not to be degraded by overflows to a point where remedial action is required. The proposed progressive reduction in overflow frequency, duration and volume will further reduce these minimal adverse effects.
B4.7.1 Objectives 1. Improvement of the water quality in the rivers and streams draining Gisborne city and the near shore waters of Poverty Bay, where appropriate. 2. Recognition of the mauri of coastal waters and restoration of mauri of degraded coastal waters.	The overflows consent seeks to reduce adverse effects over time, through a range of mechanisms, including reducing the frequency and duration of overflow events, the volume of overflows, as well as through implementing a hierarchy of overflow points (wet weather) to avoid more sensitive receiving environments. This is considered to also contribute to restoring the mauri of coastal waters, as assessed by the application of the 'Mauri Compass'.
B4.8.1 Objective 1. To avoid, mitigate or remedy the adverse effects of point-source discharges on receiving waters.	The consent includes a range of methods and management approaches to avoid, mitigate or remedy the adverse effects on receiving waters. These include: ▪ progressively reducing stormwater inflow and hence the frequency, duration and volume of overflow events; ▪ mitigation such as developing a hierarchy of wet weather overflow points and limiting overflows to a few locations; ▪ manual control of wet weather overflows to ensure the network only discharge when absolutely necessary; ▪ best practice design and management of the network; ▪ operational and response procedures to mitigate public health risk.

Policies	
B4.4.2 Policies 1. To avoid, remedy or mitigate the effects of activities which have an adverse effect on biological diversity and ecosystem integrity.	Ecological effects have been assessed as low. However, as detailed above, the consent includes a range of methods and management approaches to avoid, mitigate or remedy the adverse effects on receiving waters and associated ecology.
B4.8.2 Policies	
Protection of Existing or Potential Future Uses 1. To endeavour to ensure that the effects of any contaminants contained in point-source discharges are such that they: a) do not unduly impact on the receiving environment; and b) do not reduce, after reasonable mixing, the quality of the receiving water below any standards established in any plan for that water.	As discussed in Sections 5 and 6, wastewater overflows have the potential to contribute to temporary increases in contaminants, which may affect water quality. These effects are episodic and primarily occur during periods of heavy rain. However, overflow discharges are not likely to affect the ability to achieve the narrative/numeric objectives for most attributes. The exception to that are enterococci numeric objectives, where wastewater overflows may contribute significant levels of enterococci during overflow events. It is noted that the median numeri objective of 280 CFU(ent)/100mL is currently met at most sites, other than the upper-most site on the Taruheru River (Tuckers - above the influence of wastewater overflows) and the Hirini site on the Kaupuawhakapata Stream (where no overflow points are located). Reduction in the frequency and volume of overflows, as proposed in this application, will contribute to maintaining this target being met. Infrequent wastewater overflows are more likely to affect the 95%ile objective of 500 CFU(ent)/100mL. However background water quality (in the absence of overflows) well exceeds the objective at all sites, particularly in upper catchment areas, indicating substantial catchment microbial sources. Reduction in the frequency and volume of overflows as proposed in this application, such that overflows do not occur in events less than the 50% AEP rainfall event, will contribute to a reduction in catchment microbial sources that is required to meet this numeric objective.

Matters to be taken into account when Assessing Discharge Proposals 2. When considering proposals or applications to discharge contaminants directly to water, matters to be taken into account include: a) the total contaminant load of the effluent [composition/flow rate]; b) the assimilative capacity [including available dilution and dispersal] of the water body and existing water quality; c) the need to safeguard the life-support capacity of the water body; d) actual or potential uses of the water body and the degree to which the needs of other water users are or may be compromised; e) scenic, aesthetic, amenity and recreational values including fisheries values and the habitat of trout and indigenous fish; f) allowance for a reasonable mixing zone; g) the potential for bio-accumulative or synergistic effects; h) the actual or potential risk to human and animal health from the discharge; i) measures to reduce the quantity of contaminants to be discharged; j) the cultural and spiritual values of tangata whenua, and k) the use of the best practicable option for the treatment and disposal of contaminants, which in the case of human sewage wastewater, may include the use of land disposal or wetland treatment.	The consent application has taken into account these matters. The proposed consent seeks to apply management procedures and practices to ensure overflows are managed to a practicable minimum while progressively reduce existing overflow discharges to reduce any adverse effects.
B6 Freshwater	
Objectives	
B6.2.1 Objectives Note: The Objectives in this section are both Regional Policy Statement and Regional Plan Objectives. They must be read in their entirety and considered together. No single objective has more importance over any other.	
1. Land and freshwater is sustainably managed in a way that safeguards the life-supporting capacity of freshwater, including ecosystem processes and indigenous species, and the health of people and communities.	The overflows consent includes a range of performance measures and targets which represent a programme for continuous improvement. These have been set taking into account the financial constraints of Council and what the community can reasonably afford, while providing a pathway for progressive improvement and reduction in adverse effects.

2. The quality of freshwater is maintained and is improved where it is degraded or does not meet the relevant objectives for the freshwater unit.	The overflows consent seeks to progressively reduce the adverse effects of wastewater discharges and hence improve water quality over time.
4. Scheduled waterbodies and their margins, and the significant values of both outstanding waterbodies and wetlands, are protected or enhanced to provide for their values.	Waikanae Creek (G20 - Watercourses in Land Drainage Areas with Ecological Values), Taruheru River (G15A - Habitats and Migratory Pathways of Indigenous Fish Species) and the Waimata River (G15A - Habitats and Migratory Pathways of Indigenous Fish Species) are all scheduled waterbodies. Wastewater overflows will not impact on migratory pathways of indigenous species. Coast and Catchment has assessed effects on ecology to be no more than minor. A reduction in overflow discharges will reduce effects further.
7. The interactions between land, land use and development, freshwater, and the coastal environment and associated ecosystems are recognised and provided for through the integrated management of freshwater resources to maintain or improve their values.	The overflows consent includes a range of mechanisms to manage land-based activities to reduce wastewater overflows to fresh water and the coastal environment.
10. The mauri of waterbodies is recognised and provided for and action is taken to restore the mauri of degraded waters.	Engagement with tangata whenua was undertaken in preparing the application. The mauri of the receiving environments is recognised within this application and a range of mechanisms are proposed to progressively restore the mauri of degraded waters.
11. Mana whenua values, matauranga and tikanga are reflected in resource management processes and decision making.	The overflows consent recognises mana whenua values.
Policies	
B6.2.2 Strategic Policies 2. Collaborate with iwi and hapū to recognise their kaitiaki role and identify their freshwater values and priorities, including the development of cultural assessment frameworks for mauri and other freshwater values. 3. Have regard to the freshwater issues and outcomes identified in iwi and hapu planning documents, statutory acknowledgements and governance and partnership agreements.	The consultation undertaken with relevant stakeholders and iwi and hapū has been detailed in Section 7. The application has had regard to iwi and hapū planning documents and statutory acknowledgements, as assessed in Section 8.
B6.2.6 Integrated Management Policies 2. Manage the use of land and freshwater so that coastal water quality and ecosystems are maintained or improved where degraded. 5. Manage the adverse effects of land use to maintain water quality, or improve it where it is degraded, and protect the physical form and character of rivers, lakes and wetlands and their margins.	A range of overflow performance measures and associated targets have been developed. These demonstrate a programme of continuous improvement to reduce the number (and associated adverse effects) of overflow events over time. This will, overtime, improve water quality. Coast and Catchment has assessed the ecological effects of past overflows to be minor, and any effects will further reduce as overflow frequencies and volumes

9. In addition to measures to avoid, remedy or mitigate adverse environmental effects, consider the use of: a) Biodiversity Offsets in circumstances where there are ecologically significant residual adverse effects; and/or b) Any proposed environmental compensation or other measures that will result in positive environmental effects.	are reduced. Hence the proposal will not have ecologically significant residual adverse effects. As such, biodiversity offsets and/or environmental compensation is not considered necessary or appropriate.
Part C (1-11) Region Wide Provisions	
C2 Built Environment, Infrastructure and Energy	
Objectives	
C2.1.3 Objectives (Infrastructure) 1. Infrastructure that enables people and communities to provide for and enhance their environmental, social, cultural and economic well-being. 2. Infrastructure that is designed, located, constructed, operated and maintained to ensure: ▪ A safe and healthy environment. ▪ The efficient use of energy and resources. ▪ Adverse effects are avoided, remedied or mitigated.	The wastewater network is piece of essential regional infrastructure and an effective and efficient wastewater network is fundamental in an urban environment. Gisborne's wastewater network has expanded and been significantly improved over time to meet the needs of a growing city and changing community and cultural expectations. As with all wastewater (and drainage) networks, this continual process of expansion and improvement is on-going, in order to meet the foreseeable needs of future generations and to provide for the health and well-being of the community. This application provides for the ongoing operation of the network, subject to a range of management and maintenance requirements and a programme of progressive improvement which collectively ensure adverse effects are avoided, remedied or mitigated.
Policies	
C2.1.4.1 Policies (Network Utility Operations) 1. Provide for the ongoing operation, maintenance, replacement and upgrading of network utilities and for the future development and operational requirements of new network utilities. 2. Recognise the benefits of efficient network utility infrastructure and, that in order to achieve sustainable management given the technical and physical constraints which may be experienced by network utility operations, including those associated with their scale, location, design and operation, a compromise of the natural and physical environment may occur.	As assessed in C2.1.3 above.

3. To enable the development, maintenance and use of network utility infrastructure (including individually owned and operated systems) in a manner that avoids, as far as practicable, remedies or mitigates any adverse effects on the environment.	
C3 Coastal Management	
Objectives	
C3.10.2 Objectives 1. To maintain or, where practicable enhance the physical and cultural quality of water (including that found in aquifers) and land in the Coastal Environment. 2. The progressive upgrade of the quality of existing point and non-point discharges to water of the Coastal Environment. 3. Avoidance, where practicable of the adverse effects of discharges to land or water on the natural character and amenity of the Coastal Environment. Where avoidance is not practicable, adverse effects on amenity and natural character will be remedied or mitigated.	The proposed consent seeks to progressively reduce wastewater overflows, thereby enhancing the physical and cultural quality of water, and mitigate any temporary adverse effects on the amenity and natural character of the Coastal Environment, over time. Wet weather overflow management has progressively improved over time such that most overflow points have been sealed and where necessary, overflows are managed through priority overflow points. No direct discharges to the CMA are proposed. However, complete avoidance of overflows to the coastal environment may not practicable in extreme rainfall events where there is substantial flooding.
C3.14.1 Objective 1. Protection of the quality of water, wetlands and aquatic habitats, and the preservation of the natural character associated with lakes, rivers, wetlands and their margins, and the Coastal Environment of the Gisborne District.	As discussed in Section 6, the potential impacts of wastewater overflows on the natural character on Gisborne's urban rivers and the Bay are considered to be minor and temporary as: ▪ The rivers have been identified as having moderate or low natural character values and due to the substantial modification that occurs in an urban environment, it can be expected that the urban reaches of these rivers would typically have lower natural character values than more natural reaches. ▪ Past and current wastewater overflows have been assessed as having minimal effects on the estuarine ecology. ▪ Wet-weather overflows only occur infrequently (average of 2.5 times per year) in heavy and prolonged rain events. These large rain events carry significant sediment and contaminant loads from up-catchment areas and urban stormwater that will dominate visual and other impacts. ▪ Dry weather overflows are relatively infrequent, typically small and most do not reach waterways.

	In respect of the potential for adverse effects on the character of the Wherowhero/Waipaoa Estuary. Hydrodynamic modelling indicates that wet weather wastewater overflows may be dispersed throughout the Bay during a large (10-year ARI) rain event under current stormwater and wastewater drainage. However, it is highly dispersed and diluted at the point at which it reaches the estuary and effects on natural character are likely to be less than minor – particularly given the large flows and contaminant (sediment and other contaminants from rural activities) loads discharged from the large Waipaoa Estuary during such a significant rainfall event. Following the implementation of the DrainWise Programme, overflow discharges (both frequency and volume) will be substantially reduced, further reducing the potential for any adverse effects on the natural character of the rivers and the Wherowhero/Waipaoa Estuary.
Policies	
C3.2.3	
3. The adverse effects of activities on the integrity, functioning and resilience of natural processes and qualities should be avoided as far as practicable and, where complete avoidance is not practicable, the adverse effects shall be mitigated and provision made for remedying those effects to the extent practicable. Natural processes and qualities include: ▪ Biodiversity. ▪ Freedom of movement of biota (living organisms). ▪ Intrinsic values. ▪ Natural substrate composition. ▪ Natural air and water quality. ▪ Water quantity. ▪ Dynamic processes and features arising from the natural movement of sediments, water and air.	Short duration overflow events, which are low volume discharges when compared to river flows (particularly in heavy rain) are unlikely to affect natural coastal processes.
8. Ecosystems that are unique to the Coastal Environment and vulnerable to modification – such as estuaries, coastal wetlands, dune systems, and their margins – should be	See previous assessment above (C3.14.1 Objective).

protected from the adverse effects of activities in order to preserve the natural character of the Coastal Environment.	
14. Lighting, glare, colour or any plume that is visually discernible as the result of any discharge to air or water, that occurs as a result of subdivision, use and development in the Coastal Environment and that is incongruous with natural levels of lighting, glare, colour, or any naturally occurring plume should as far as practicable be avoided. Where complete avoidance is not practicable, the adverse effects should be mitigated and provision made for remedying those effects, to the extent practicable.	Wet weather overflows occur during high-rainfall events are unlikely to be visually discernible, due to large sediment loads already present in waterbodies, primarily from up catchment source. A prolonged dry weather discharge to water could potentially have visually discernible effects, however these discharges do not often reach waterbodies, and associated effects are temporary. A range of avoidance, response and mitigation measures are in place to reduce the likelihood of dry weather discharges to waterbodies and mitigate effects.
C3.6.3 Policies 1. The Council and consent authorities will take into account the guarantees of rangitiratanga and its relationship with kawanatanga in resource management planning and decision-making. 2. People exercising powers, duties and functions under the RMA will recognise that each hapu has its own priorities and preference for the management of coastal resources and will respect those priorities and preferences. 3. The Council will encourage applicants for resource consents in the Coastal Environment to demonstrate that the tangata whenua have been consulted in respect of applications. 4. The Council will recognise and, where appropriate, enhance the kaitiaki responsibilities of tangata whenua with respect to the Coastal Environment and will endeavour, by its actions in respect of management of the CMA, to maintain or enhance that responsibility. 5. The Council and consent authorities shall have regard to the need to protect the mauri of coastal resources and, where necessary and appropriate, will encourage the restoration of the mauri of coastal resources. 9. Consent authorities will, in respect of activities or developments which involve the discharge of contaminants into the CMA, have particular regard to Māori spiritual and cultural values and physical use of the CMA.	As discussed above, engagement has been undertaken with tangata whenua and the views of CMT applicants has been sought. Proposed conditions of consent provide for ongoing tangata whenua advice on, and input into, the consent application.
C3.10.3 Policies	
1. Water quality of the CMA between Pariokonohi Point and Young Nick's Head to approximately 2km offshore will be managed to accommodate the following purposes:	These water quality standards have been taken into account in this consent application. The application does not anticipate any direct discharges to the

a) SA: Water managed to afford all water values the highest protection. b) SB: Water managed for contact recreation (to at least provide for low health risks while bathing) while also protecting ecosystem values. c) SC: Water managed to at least provide for low risk occasional human contact whilst protecting ecosystem values. d) SD: Water managed to at least protect organisms from death by toxic discharge and prevent fouling of fishing grounds. Refer: Method C3.10.4(10) for Water Quality Standards.	CMA (other than a possibility during extreme rainfall events), and there are no formal points that will direct discharges to the CMA. However, hydrodynamic modelling indicates that wastewater overflows may adversely affect water quality in the Bay and potentially affect water quality for contact recreation – in combination with other catchment sources. Importantly, the hydrodynamic modelling demonstrates that the contribution of wastewater overflows to microbial levels in the Bay are substantially reduced following the implementation of the DrainWise programme (section 6.6.4). This contributes significantly to achieving the desired water quality management objectives, although it is recognised that other microbial sources may mean that these objectives are not able to be met.
2. Council will seek to enhance Poverty Bay water quality through: c) Ongoing commitment to continued upgrading, where necessary, of infrastructure to manage the quality of urban run-off.	The targets and associated performance measures in this consent application provide an on-going commitment to continued upgrading of infrastructure to reduce inflow and infiltration of stormwater into the wastewater network.
4. The Consent authority shall not grant a permit for a discharge to water of the CMA which on its own, or in combination with other existing lawful discharges, will, after reasonable mixing, result in existing water classification standards being exceeded except where: a) Exceptional circumstances justify the granting of the consent. b) The discharge is of a temporary nature and will not result in adverse effects that are cumulative. c) The discharge is needed for maintenance work, the result of which will be an improvement in the quality of the discharge, and the discharge will not result in adverse effects that are cumulative. d) The existing water classification can be demonstrated to be inappropriate, and exceeding the standards is consistent with sustainable management having particular regard to the desirability of enhancing water quality, and public expectations for water quality.	No direct discharges to the CMA are proposed, other than a possibility in very heavy rainfall. Additionally, any discharges will be of a temporary nature. Also, as discussed above, the hydrodynamic modelling demonstrates that the contribution of wastewater overflows to microbial levels in the Bay are substantially reduced following the im0lementation of the DrainWise programme (section 6.6.4). This contributes significantly to achieving the desired water quality management objectives, although it is recognised that other microbial sources may mean that these objectives are not able to be met.
5. A discharge of human sewage, excluding discharges of human sewage from ships, direct into the water of the Coastal Environment, which does not pass through land, shall only occur where: a) It better meets the purpose of the Act than disposal onto land.	The discharge of wastewater overflows to land is not a feasible alternative and would give rise to significant public health risks. Wet weather overflows occur to avoid this from happening. However, in very large rain events informal overflow may occur and discharge over land to the CMA.

b) There has been consultation with the tangata whenua in accordance with tikanga Māori and due weight has been given to Sections 6, 7 and 8 of the Act. c) There has been consultation with the community generally.	Most dry weather overflows discharge via land prior to entering water. Consultation with tangata whenua and the community has been undertaken, and the outcome of this is documented in section 7.
6. The consent authority shall not permit the discharge of human sewage direct to the CMA of a Protection Management Area unless it can be demonstrated that the adverse effects of the discharge will be minor. In particular the consent authority will have regard of the effects of the discharge on: a) The mauri of the receiving environment. b) The actual or perceived amenity values of the receiving environment. c) Any values protected or sought to be protected by the Protection Management Area, including any adverse effect on the natural character of the Protection Management Area.	No direct discharges to the CMA are anticipated as no overflow points are directed to the CMA and the wastewater network is largely set back from the CMA. A coastal permit to discharge wastewater overflows to the CMA has been sought to cover the possibility that in very rare instances, a wastewater discharge to the CMA may occur.
7. The discharge of a contaminant (either by itself or in combination with other discharges) directly into the CMA should only be allowed in circumstances where: a) The existing water quality is maintained and, where appropriate, enhanced. b) The effects on the community of not allowing the discharge would not promote the social and economic well-being of the community. c) The discharge to an alternative receiving environment would create a greater adverse effect than the proposed discharge to sea.	No direct discharges to the CMA are anticipated as no overflow points are directed to the CMA and the wastewater network is largely set back from the CMA. A coastal permit to discharge wastewater overflows to the CMA has been sought to cover the possibility that in very rare instances, a wastewater discharge to the CMA may occur. Not withstanding this, the proposed consent contains a range of measures to reduce overflow discharges (that may reach coastal waters) and to progressively improve water quality.
8. All discharges of contaminants to water, land of the Coastal Environment shall avoid creating adverse effects on habitats, feeding grounds or ecosystems by: a) Not locating where locally important habitats, feeding grounds, or ecosystems are likely to be adversely affected by the contaminant. b) Not having physical or chemical properties such as a temperature, toxicity, pH or turbidity suspended solids which alone, or in combination with other discharge properties, is likely to cause fish mortality, a failure of fish spawning or passage, significant changes in the abundance and composition of aquatic flora and fauna in the receiving environment.	An assessment of the receiving environment and ecological effects of discharges to the coastal environment has been undertaken by Coast and Catchment Ltd. They find that wet weather discharges do not have a substantial impact on water quality or benthic ecology in estuarine sections of Gisborne's rivers, and the ecological effects (of wet weather overflows) are relatively minor. This is because: ▪ overflow and corresponding river water quality analyses suggested that the effects of the monitored, wet weather discharges on urban river water quality, were below levels of ecological concern; ▪ the results of water quality monitoring were consistent with model predictions that suggest nitrogen, phosphorus and suspended solids

	concentrations from discharges will rapidly be diluted to levels well below those recorded in GDC's river monitoring programme; ▪ only minor changes in sediment quality were detected directly below two of the primary and secondary outfalls; ▪ adverse ecological effects were not apparent immediately below primary and secondary outfalls in lower river sections. Dry weather overflows are unpredictable and can occur anywhere along the network. These have the potential to cause significant adverse effects if they reach a waterbody and the discharge is undetected for some time. However, this potential effect primarily relates to dry weather overflows to small streams with limited available dilution and not significant habitats in the CMA. To mitigate dry weather overflow risks, Council has a significant programme in place, including proactive maintenance works, appropriate operational procedures, and community awareness programmes.
9. Particular regard will be given to avoiding the adverse effects of discharges that: a) Do not readily degrade in the Coastal Environment into harmless forms. b) Have the potential, once discharged into the Coastal Environment, to be transformed into a more toxic form. c) When combined with other contaminants, have serious synergistic effects. d) Have poorly understood effects. Where complete avoidance is not practicable, the adverse effects should be mitigated and provision made for remedying those effects, to the extent practicable.	Section 6.9 of the application addresses the potential adverse effects of Emerging Organic Contaminants (EOCs), which are any synthetic or naturally occurring organic chemical that is not commonly monitored in the environment but has the potential to enter the environment and cause known or suspected adverse ecological and (or) human health effects. Wastewater overflows are a potential source of EOCs. This assessment concluded that there is a potential for some EOCs to bioaccumulate within the receiving environment – although there are no established analytical methods to measure EOCs in biota and there is a large knowledge gap of the potential human health risks from consumption of these species. The assessment notes that while there is an ongoing risk of bioaccumulation, GDC's implementation of the DrainWise programme will reduce both the frequency and volume of wet weather overflows substantially. So while an overflow event will result in EOCs being discharged, and hence the potential for bioaccumulation to occur with some of the EOCs, the load of EOCs discharged via overflows will be reduced substantially over time, and will significantly reduce the rate at which any bioaccumulation occurs.

10. Maintain and where practicable, enhance amenity values in the following: a) Locations with a high public interest or public use of water except for the Port Management Area b) Locations with a particular tangata whenua interest in the water c) Places where food is regularly gathered d) Places which can be demonstrated to be regionally important in respect of the amenity they provide and which may include: i. Important scenic sites. ii. Important recreation sites, including sites that may be used for active recreation such as surfing, swimming or fishing or passively used sites which may be appreciated for their relative ease of access, scenic beauty or seclusion. iii. Sites which contain a special mix of built and natural amenity values which combine to enhance people's perception of amenity. For the purposes of this policy, the Port Management Area includes the area in the Tairāwhiti Plan planning maps. Within the Port Management Area, the dredge dump areas are excluded from amenity considerations in relation only to the deposition of dredge spoil and its discharge, and not in relation to any other discharge or deposit.	Amenity values will be enhanced as a result of the implementation of the DrainWise programme and the proposed operational and management regime to progressively reduce wet weather overflow frequency and volume and maintain dry weather overflows at a practicable minimum.
13. The Council shall minimise the practical uncertainty created by the use of the terms 'reasonable mixing' and 'natural perturbations' by: a) Requiring applicants for discharges water of the CMA to assess dispersion and mixing characteristics for their discharge in the receiving environment. b) Based upon the dispersion and mixing characteristics of the discharge defining, on a case by case basis, a zone that will be used for the discharge as the reasonable mixing zone.	No direct discharges to the CMA are anticipated as no overflow points are directed to the CMA and the wastewater network is largely set back from the CMA. A coastal permit to discharge wastewater overflows to the CMA has been sought to cover the possibility that in very rare instances, a wastewater discharge to the CMA may occur. Notwithstanding this, dispersion of wet weather overflows within the Bay has been assessed.
C3.10.4 Methods 12. Discharge water quality standards refer to Schedule G14: Note: Water classes are fully described in Schedule G14. Please refer there to determine the bounds of the respective water quality class areas. Note: The standards listed for each class apply after reasonable mixing of any contaminant or water with the receiving water and disregard the effect of any natural perturbations that may affect the waterbody.	These water quality standards have been taken into account in this consent application. The application does not anticipate any direct discharges to the CMA (other than a possibility during extreme rainfall events), and there are no formal points that will direct discharges to the CMA. However, hydrodynamic modelling indicates that wastewater overflows may adversely affect water quality in the Bay and potentially affect water quality for contact recreation – in combination with other catchment sources.

STANDARDS FOR CLASS SA WATERS The quality of Class SA waters shall conform to the following requirements: a) The natural water temperature shall not be changed by more than 3 degrees celsius. b) The natural pH of the waters shall not be changed by more than 0.1 unit and at no time shall be less than 6.7 or greater than 8.5. c) There shall be no destruction of natural aquatic life by reason of a concentration of toxic substances nor shall the waters emit objectionable odours. d) The natural colour and clarity of the water shall not be changed to a conspicuous extent. e) Aquatic organisms shall not be rendered unsuitable for human consumption by the presence of contaminants, and the water shall not be rendered unsuitable for bathing by the presence of contaminants. STANDARDS FOR CLASS SB WATERS The quality of Class SB waters shall conform to the following requirements: a) The natural water temperature shall not be changed by more than 3 degrees celsius. b) The natural pH of the waters shall not be changed by more than 0.1 unit and at no time shall be less than 6.7 or greater than 8.5. c) There shall be no destruction of natural aquatic life by reason of a concentration of toxic substances nor shall the waters emit objectionable odours. d) The natural colour and clarity of the water shall not be changed to a conspicuous extent. e) The water shall not be rendered unsuitable for bathing by the presence of contaminants. STANDARD FOR CLASS SC WATERS The quality of Class SC waters shall conform to the following requirements: a) The natural water temperature shall not be changed by more than 3 degrees celsius. b) The natural pH of the waters shall not be changed by more than 0.1 unit and at no time shall be less than 6.7 or greater than 8.5. c) There shall be no destruction of natural aquatic life by reason of a concentration of toxic substances nor shall the waters emit objectionable odours. d) The natural colour and clarity of the water shall not be changed to a conspicuous extent:	Importantly, the hydrodynamic modelling demonstrates that the contribution of wastewater overflows to microbial levels in the Bay are substantially reduced following the implementation of the DrainWise programme (section 6.6.4). This contributes significantly to achieving the desired water quality management objectives, although it is recognised that other microbial sources may mean that these objectives are not able to be met. In respect of Standard for Class SA, a conservative health risk assessment has been undertaken by Streamlined Environmental Limited to assess the potential risks of overflows in respect of shellfish consumption. This assessment indicates potentially high risks associated with the current level of discharge during a 2 year and 10-year ARI event in some locations – including those along the Kaiti coast (Sites 2, 3 and 5 in Appendix M). However, these risks reduce substantially as a result of the implementation of the DrainWise programme to be low to moderate – noting that a 10 year rainfall event will occur, on average, only once every 10 years. The aim of the consent is to achieve no overflows in events up to the 50% AEP (1 in 2 year ARI) – ie no effect in events up to this size; and discharge volumes in larger events will be substantially reduced, such that effects on shellfish will be substantially lower than currently occurs. As predicted by the Heath Risk Assessment, heath risks will be reduced to low in a 10 year ARI (future) event at sites 2, 3 and 5 for almost all tide and wind scenarios (see Table 7, Appendix M). Given their relatively small volumes compared to river flows in both dry and wet weather, it is unlikely that overflows will impact of standards relating to temperature, pH, colour and clarity. The assessment of ecological effects indicates that potential effects on ecology are minimal in close proximity to overflow discharge locations as a result of past overflows. Any effects will be further reduced in the future as overflow frequencies and volumes are reduced.
C6 Freshwater	

C6 provisions are regional plan provisions. The exception are some rules for riparian management areas, which are both regional and district rules.	
Policies	
C6.2.1 General Water Quality Policies	
1. When considering any application for a discharge the consent authority must have regard to the following matters: a) The extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of fresh water including on any ecosystem associated with fresh water and b) The extent to which it is feasible and dependable that any more than minor adverse effect on fresh water, and on any ecosystem associated with fresh water, resulting from the discharge would be avoided.	The policies do not apply as the application relates to an existing discharge, which is proposed to be progressively reduced in the future, rather than increased. Not withstanding this, the discharge has been assessed as having no more than minor adverse effects on ecology. Overflow discharges can, and do, affect bathing water quality. However, as assessed in the application, the effects will be substantially reduced following the implementation of the DrainWise programme and the achievement of the objectives and targets in Section 4, and effects will be managed through consent conditions .
2. When considering any application for a discharge the consent authority must have regard to the following matters: a) The extent to which the discharge would avoid contamination that will have an adverse effect on the health of people and communities as affected by their secondary contact with fresh water; and b) The extent to which it is feasible and dependable that any more than minor adverse effect on the health of people and communities as affected by their secondary contact with fresh water resulting from the discharge would be avoided.	
3. This policy applies to the following discharges (including a diffuse discharge by any person or animal): a) A new discharge or b) A change or increase in any discharge – of any contaminant into fresh water, or onto or into land in circumstances that may result in that contaminant (or, as a result of any natural process from the discharge of that contaminant, any other contaminant) entering fresh water.	
C6.2.2 Policies for Point Source Discharges	
1. That there are no direct discharges to surface waterbodies, or to land where it can flow directly into a waterbody or to groundwater of:	This policy seeks no direct discharges of wastewater to water (other than wet weather overflows).

a) Untreated sewage, wastewater (except as a result of extreme weather related overflows where these are being reduced over time); or b) ...	This consent also seeks authorisation for dry weather overflows. Dry weather overflows are unpredictable and could occur throughout the network. To reduce the likelihood of dry weather overflows, Council has increased its proactive maintenance of critical wastewater assets to minimise the risk of build-up of material in the network leading to dry weather overflows. Council also undertakes regular education campaigns to reduce foreign materials being disposed of into the network. The overflows consent also includes a performance measure to manage dry weather overflows to a practicable minimum, consistent with best practice.
2. Manage point source discharges to land and water so that the existing ecosystem functions within the Region's waterbodies are maintained and that: a) Point source discharges to: i. Regionally Significant Wetlands identified in Schedule G17; ii. Outstanding Waterbodies identified in Schedule G18; iv. Degraded waterbodies where the discharge is of contaminants which cause the waterbody to be degraded; b) Point source discharges are avoided to sensitive waterbodies or to land where it can directly enter water within Aquatic Ecosystem Waterbodies identified in Schedule G15, Significant Recreation Areas identified in Schedule G19 or freshwater bodies discharging within 100m of Marine Areas of Coastal Significance identified in Schedule G22, only occur if this will not impact on the values for which those waterbodies are scheduled; c) The mauri of waterbodies is retained, and where degraded are improved.	As indicated previously, the discharge has been assessed as having no more than minor adverse effects on ecology and any minimal adverse effects will be progressively reduced. Overflow discharges occur to both the Taruheru and Waimata Rivers, which are identified in G19 Schedule : Significant Swimming and Recreation Areas. While the discharge may affect the ability for contact recreation in these rivers for several days following an event: ▪ These restrictions occur primarily following heavy rainfall, when these rivers are unlikely to be suitable for bathing due to other catchment sources; and ▪ A management and improvement regime is proposed to reduce overflow events so they occur infrequently (not occur in events up to the 50% AEP), consistent with Policy 6.2.2 (9) below.
6. Where a water quality objective in not being met or a limit/target has been exceeded or the waterbody, including coastal waters, is identified as degraded: a) Targets, methods and timeframes for improvements in water quality will be identified through the catchment planning process; b) Ongoing monitoring will be undertaken to track the progress in water quality improvement; c) New discharges and renewals of existing discharge consents will be managed to bring the waterbody back within the water quality limit and/or to better achieve the freshwater quality objective;	The assessment provided in Section 5.4 of the AEE demonstrates that some water quality objectives of the Gisborne Urban FMU are not currently being met (including in the absence of overflows). Accordingly, this application includes: ▪ Objectives, targets, methods and timeframes for reductions in existing overflows; ▪ On-going monitoring and reporting of performance.

d) No discharge consents for new point source discharges of contaminants of concern will be issued unless the contaminants of concern are reduced to a concentration that maintains or improves water quality after reasonable mixing; e) As existing discharge consents are renewed additional requirements for avoidance of contamination, recovery of contaminants, treatment, or alternative disposal methods will be required unless treatment reduces the contaminants of concern to a concentration that maintains or improves water quality after reasonable mixing; and f) Where a section 128 review of conditions of an existing discharge consent is undertaken additional conditions aimed at bringing the waterbody back within the limit, or to better achieve the freshwater quality objectives, may be placed on the consent.	
7. When waterbodies are identified in a catchment as degraded due to: a) Bacterial contaminants, wastewater discharges will be required to improve the quality of the discharge and/or reduce the volume of the discharge in order to meet the relevant freshwater objective as quickly as practicable; and	As discussed, the enterococci objectives for the Urban FMU are not currently being met – including in the absence of wastewater overflows. Notwithstanding this, a substantial programme (DrainWise) and on-going improvements to operational and management processes have been implemented to reduce the frequency and volume of the discharge, consistent with this policy.
8. When considering applications to discharge contaminants directly to land or water, assessment criteria are: a) The total contaminant load of the discharge [composition/flow rate] and how the water quality will be maintained within the limits for the waterbody, in a manner than achieves the objectives; b) The proposed treatment methods and the likelihood of this being the Best Practicable Option for the contaminants; c) The need to provide for a high standard of pre-discharge treatment for Scheduled waterbodies and where water quality limits for a waterbody have been exceeded or are likely to be exceeded, or water quality objectives are not met; d) The actual or potential impact on any values of scheduled waterbodies; e) The assimilative capacity and an allowance for reasonable mixing in the waterbody; f) The need to safeguard the life-supporting capacity of the waterbody; g) The potential for bio-accumulative or synergistic effects;	These matters have been taken into account in the consent application.

h) The actual or potential risk to human and animal health from the discharge; i) The measures to reduce the quantity of contaminants to be discharged; j) The mauri of the receiving waterbody and any other values placed on the site by tangata whenua; k) The need to avoid exacerbation of flooding risk; l) The need to avoid erosion of the banks or bed or land instability at or downstream of the discharge point.	
9. Discharges of untreated sewage from the reticulated infrastructure network shall be managed to: a) Minimise the frequency of these discharges; and b) Achieve performance of an overflow occurrence of no more than 50% probability in any given year; c) Issue discharge permits for no longer than 5 years except where there is evidence from past performance to demonstrate that wastewater overflow events can reliably achieve the performance standard in clause b. above.	The performance targets for wet weather overflows have been set out in Section 4. These include reducing the frequency and duration of wet weather overflows to meet the policy aim of no wet weather overflows in events up to the 50% AEP. Accordingly, the proposed aligns with the expectations of this policy. It is also considered that the causes of overflows are well known and understood and the proposed DrainWise programme is appropriate to meet this target, such that there is confidence that it will be achieved within the timeframes in Section 4. Given this, it is not considered to be appropriate to restrict the duration of this consent to 5 years. The adverse effects of overflows, and the receiving environments are well known and clearly outlined in Section 6. The overflows consent seeks to progressively reduce the number of overflows and duration of overflows through a programme of work to reduce stormwater inflow and infiltration, and to respond to and mitigate effects associated with overflows if they occur. As such, the applicant seeks a consent duration of 20 years. This enables concerted investment (time and resource) to be targeted to resolving overflows. Additionally, a review condition in accordance with section 128 of the RMA is proposed, providing for the ability to review the conditions of consent should circumstances change.
Part D: Area Based Provisions	
DC2 General Coastal Management Area	
Objectives	

2. The maintenance and enhancement of the quality and integrity of the coastal environment.	The effects of overflow events are temporary and the quality and integrity of the coastal environment will be maintained (and progressively enhanced).
Policies	
1. Gisborne District Council will ensure that people wishing to use, develop or protect the coastal environment in the General Management Area provide information concerning the adverse effects of their proposal on the environment.	This consent application is supported by a range of technical specialist reports, providing a comprehensive assessment of the adverse effects of overflows on the environment.
DP1 Port Coastal Management Area	
Objectives	
4. Non port-related development provided for in the Port Coastal Management Areas in a way that does not compromise the operational requirements of the Port or those port-related industries and activities which have a direct relationship with marine activities and which benefit from a location in the Port.	There are no wet weather overflow points that direct wastewater overflows to the Port Coastal Management Area.
DF1 Freshwater Management Units: Waipaoa Catchment Plan	
Objectives	

DF1.5.2.1 Water Quality Objectives

Attribute	Narrative Objective	Numeric Objective	Assessment
Dissolved oxygen - INTERIM OBJECTIVE	Occasional minor stress on sensitive organisms caused by short periods (a few hours each day) of lower dissolved oxygen. Risk of reduced abundance of sensitive fish and macroinvertebrate species.	Summer (1 Nov -30 April) DO 1 day minimum ≥ 5mg/L, (B Band) based on sampling at least monthly during daylight hours) Summer (1 Nov -30 April) DO 7-day mean minimum ≥ 5.0mg/L, (C Band) the mean value of 7 consecutive daily minimum values based on continuous sensor monitoring for at least one week.	The assessment undertaken by Coast and Catchment (Appendix H), compared dissolved oxygen (DO) levels from estuary and freshwater sites with available reference values. In the estuary sites, lowest DO levels were obtained from the uppermost Taruheru site (Lytton Road), and from the Grey Street site on Waikanae Stream. This is significant because, the Lytton Road site was upstream of the controlled overflows and no controlled overflows into Waikanae Stream occurred during the period monitored. In general, DO saturation increased down-river, but there also appeared to be a pattern of lower DO saturation during and/or after discharge events. A similar pattern occurred at freshwater sites around 4 km above the nearest outfall on Taruheru River (Tuckers) and around 7 km above the nearest
	In the Waikanae Stream and Awapuni Moana, moderate stress	Summer (1 Nov -30 April) DO 1 day minimum ≥ 4mg/L (C Band) based	

	on a number of aquatic organisms caused by low dissolved oxygen levels for several hours each day. Risk of sensitive fish and macroinvertebrate species being lost.	on sampling at least monthly during daylight hours Summer (1 Nov -30 April) DO 7-day mean minimum ≥ 5.0mg/L, (C Band) the mean value of 7 consecutive daily minimum values based on continuous sensor monitoring for at least one week.	outfall on Waimata River. This suggests that the DO sags were related to rainfall and associated storm flows rather than wastewater inputs. Any effects of wastewater overflows on dissolved oxygen will reduce as stormwater inflow is progressively removed from the wastewater network.
Nitrate toxicity – INTERIM OBJECTIVE	High conservation value system. Unlikely to be toxicity effects on even the most sensitive organisms	Nitrate Annual median ≤1.0mg/L (A Band) Nitrate Annual 95th Percentile ≤1.5mg/L (A Band) Both calculated from monthly samples over a 5 year rolling period	Highest nitrate-N concentrations were regularly recorded at the Taruheru Lytton site, in the outer urban area. Nitrate-N concentrations routinely exceeded the ANZECC (2000) freshwater and SE Australian estuarine triggers for the protection of ecosystems at the three downstream sites in Taruheru River, but nitrate-N toxicity guidelines were not exceeded during the monitoring periods examined when overflows occurred. The infrequent (no more than once every two years) wet weather wastewater overflows that are targeted will have minimal impact on nitrate levels. It is noted that nitrogen appears to be largely source from upper catchment areas.
	In the Awapuni Moana some growth effect on up to 5% of species	Annual median ≤2.4mg/L (B Band) Annual 95th Percentile ≤3.5mg/L (B Band) Both calculated from monthly samples over a 5 year rolling period	
Ammonia toxicity – INTERIM OBJECTIVE	80% species protection level: Starts impacting regularly on the 20% most sensitive species (reduced survival of most sensitive species).	Ammonia Annual median ≤1.3mg/L NH4 –N/L (C band) Ammonia Annual Maximum ≤2.20 mg/L NH4 –N/L Both calculated from monthly samples over a 5 year rolling period	Ammonia toxicity was assessed by both Coast and Catchment (Appendix H) and 4Sight (Appendix I). Both concluded that ammonia toxicity was below relevant guideline median levels, including the interim objective, during and following overflow events. Accordingly, it is concluded that the proposal will not affect the ability to meet this objective and associated target.
Enterococci	People are exposed to a low risk of infection (less than 1% risk) from contact with water during activities with occasional immersion and some ingestion of water (such as wading and boating).	Annual median ≤ 280 cfu/100mL Annual 95th percentile ≤ 500 cfu/100mL Median and 95th percentile values both calculated from monthly samples over a 5 year rolling period	A detailed analysis of enterococci levels was undertaken by 4Sight (Appendix I). This demonstrates that the objective/target is currently met in the urban sections of the Taruheru and Waimata River and Waikanae Stream in the absence of overflows. The only sites where this median is not met is Tuckers, which is well outside the urban area that may be affected by overflows and in the Kopuawhakapata Stream.

			However 95%ile background (in the absence of overflows) well exceeds the objective at all sites indicating substantial catchment microbial sources. Wastewater overflows have the potential to increase enterococci levels. However, the proposed programme to reduce stormwater inflow will substantially reduce wastewater overflow frequency and volume and contribute to achieving the enterococci targets.
Physical habitat	Physical habitat, riparian margins and flow are modified but provide areas for some invertebrates and birds, and for some native fish species to spawn and live. Habitat primarily provides for less sensitive species such as shortfin and longfin eel (tuna) and inanga, including inanga spawning habitat in the side streams of the Taruheru River and Waikanae Stream.		Wastewater overflows are unlikely to affect physical habitat. As assessed by Coast and Catchment, effects on aquatic ecosystems are minor immediately adjacent to overflow points.
Clarity	Moderate levels of visual clarity during normal flows.	Visual Clarity in freshwater streams ≥ 0.5m at times when river flow is less than the median flow.	Wet weather overflows may affect visual clarity, but these overflows occur in heavy rain where clarity is already affected by sediment discharges from up-catchment sources. It is also noted that the target is unlikely to apply in the circumstances. Dry weather overflows have the potential to affect clarity in small streams, should an overflow reach a waterway. However, these are rare and generally of short duration.
Fish	A range of generally less sensitive native fish species live in the waterways, as well as estuarine species and marine species which move into the rivers at high tide. The rivers remain a national stronghold for long finned eel (tuna).		Occasional wastewater overflows are not considered likely to affect fish or bird species.

Birds	The estuarine environment supports a range of native wading species, including migratory birds.		

DF1.5.3.1 Water Quality Limits and Targets

Attribute	**Limit**	**Target**	
Temperature	Annual summer 1 day hottest day temperatures are ≤ 21'C	Improve Taruheru River Waikanae Stream and Awapuni Moana so that 1 day hottest day temperatures are ≤ 21'C and to achieve DO objective by 2030	Wastewater overflows are unlikely to affect river temperature. Wet weather overflows occur in very heavy rain and river temperature will be dominated by up-catchment flows. Dry weather overflows, which are piped underground and hence generally at a lower temperature than above ground watercourses in summer, are not expected to increase annual summer river temperatures.
Suspended sediment	Sediment inputs from land use are managed through FEPs and consent conditions to achieve clarity objective. Numeric limits to be defined when sufficient monitoring data becomes available.[1]	Sediment inputs from land use are managed through rules and resource consents to achieve clarity objective. Numeric targets to be defined when sufficient monitoring data becomes available.	As indicated in Appendix I, sediment in the urban rivers is largely dominated by up-catchment sources. This target is directed at managing those sources.

[1] It is preferable for the plan to set numeric limits for DIN, DRP suspended sediment, turbidity and river flow as these have impacts on achieving the objectives that have been set. However, at the time of plan preparation there is insufficient data to justify numeric limits that relate to those objectives. Consequently, monitoring and reporting is proposed in the methods to establish appropriate numeric limits by 2025. In the absence of numeric limits the policies and rules of the plan, and in particular the requirement for FEPs, provide mechanisms to achieve the objectives.

F1.4.1 Requirements for Inclusion in Wastewater Network Assessment of Environmental Effects (AEE) for Discharges of Emergency Overflows of Sewage to Water and Land (Previously Schedule 18 to the Regional Freshwater Plan)

Schedule 18		Section Addressed in AEE
A (i)	A description of the wastewater network and its current and predicted future performance.	This is described in Section 2 and 3 in relation to the current network and Section 4 in relation to the objectives and targets that are being sought through the consent.
A (ii)	An assessment of the receiving environment and the actual and potential effects (including cumulative effects) of wastewater diversions and discharges, and associated river bed activities on: ▪ Public health; ▪ Flooding hazards; ▪ Watercourse hydrology, and surface water uses; ▪ Receiving environment sediment quality and water quality, including Environmental Indicator monitoring results; ▪ Aquatic habitat, ecology and ecosystem health; ▪ The natural and amenity values of lakes, rivers, wetlands and aquifers; ▪ Riparian vegetation; ▪ The extent and quality of open stream channels; ▪ Fish passage for native fish; ▪ The erosion and sedimentation of rivers; ▪ The discharge and accumulation of litter; and ▪ For discharges to the coastal marine area; erosion, accretion; natural character and public access.	Section 5 and Section 6 of the consent provide a comprehensive assessment of both the receiving environment and the potential adverse effects of the current and future discharges. Several criteria have limited relevance to the consent sought and are more relevant to stormwater discharges: ▪ Flooding hazards – these are discussed to the extent that they contribute to overflows. ▪ Watercourse hydrology – this is briefly discussed in relation to the major rivers that receive overflows. ▪ Riparian vegetation – again, this is briefly discussed in relation to the major rivers that receive overflows but is unlikely to be affected by wastewater overflows. ▪ The extent and quality of open stream channels – again, this is briefly discussed in relation to the major rivers that receive overflows but is unlikely to be affected by wastewater overflows

		compared to erosion caused by stormwater discharges. ▪ Fish passage for native fish – this application does not involve any structures that may impede fish passage. ▪ The discharge and accumulation of litter – again this is primarily a stormwater discharge issue. Wastewater overflows can include material that can be considered litter, and this is addressed through overflow response. ▪ For discharges to the coastal marine area; erosion, accretion; natural character and public access – as discussed above, no discharges to the CMA are anticipated and consent has only been sought out of caution to cover extreme events.
A (iii)	The above assessment should identify the contaminants of concern within the network, which may include zinc and other heavy metals, and petroleum hydrocarbons as well as faecal material. The AEE should assess the effects of wastewater contaminants discharged to estuaries and Poverty Bay.	Assessment of the impacts on water quality is assessed in Section 6. Petroleum hydrocarbons are not relevant to wastewater discharges.
A (iv)	Identification of the urban rivers and streams within the catchment in relation to the values identified in the Freshwater Plan.	The rivers affected by overflows are shown in section 2. As assessment of the discharges against the objectives for relevant water bodies is provided above.
A (v)	Governance structures and management responsibilities for wastewater networks.	This is provided in Section 3.
A (vi)	Significant non-network diversion and discharge activities that may have a material effect on environmental outcomes.	Background water quality and the impact of other sources is discussed in Sections 5 and 6 (and above in respect of receiving water objectives).

B	A description of the strategic objectives sought for the wastewater discharges, diversions and associated activities and receiving environments, including: ▪ The social, ecological, economic, amenity and cultural objectives; ▪ The community and iwi consultation undertaken in determining the strategic objectives; ▪ Identified milestones required to achieve those objectives. These objectives should address the long-term aim of reducing the wastewater overflows.	The objectives of the consent are discussed in Section 4. Engagement with the community and tangata whenua is presented in Section 7. Conditions of consent are proposed in Section 9 to give effect to these.
C	A description and consideration of the range of management options available to achieve, or progress towards, the objectives identified in (B), including: ▪ Methods by which network discharges, will be managed; ▪ Methods for the management of non-network activities, such as discharges from private properties ▪ Education initiatives to support the management regime; ▪ Methods to avoid adverse effects occurring; ▪ Methods for managing high contaminant load sources; and ▪ Design standards and levels of service for the network; and ▪ Methods and timeframes for reducing the wastewater overflows.	These matters are discussed in Sections 2 and 3, and include a discussion on the development of the network and the rationale for the proposed management approach (including DrainWise).
D	The proposed network management method(s), including: ▪ The identification of the Best Practicable Option (BPO) to prevent or minimise, the adverse effects of wastewater diversions, discharges and associated activities, including any methods to mitigate significant unavoidable adverse effects ▪ The methods by which; network interconnections, non-network discharges, urban rivers and streams and associated river bed activities are proposed to be managed and integrated management will be achieved; - Any regulatory methods; and - Any non-regulatory methods.	These matters are primarily discussed in Section 3 and 4.
E	A description of the processes and tools to support compliance with the conditions of a network consent including: ▪ Methods of monitoring and reporting progress; ▪ A monitoring programme addressing human and ecosystem health in both the receiving waters and relevant downstream coastal waters;	These matters are described in Section 4 (monitoring and reporting) and Section 9 (conditions of consent).

	▪ A prioritised programme(s) for implementing the BPO; ▪ Operation and maintenance programmes to ensure the effective functioning of the management method(s); and ▪ A process for reviewing the catchment or network management approach based on an increased understanding of environmental responses, public health issues, community needs and network priorities.