



Appendix A - Statutory Review

Option 1: Status Quo and Years 1-3 of Proposal – Parker Lane Discharge

This option will see the discharge continue in its current location but with an increase in the discharge to 25,680 cubic metres per day of treated Wastewater to the Parker Lane Stream. This option promotes no technological improvements to the process or water quality discharge improvements

National Policy Statement on Freshwater Management

NPSFM Objectives and Policies	Ability of Option 1 to have regard to the NPSFM
<p>A. Water quality</p> <p>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, at least as affected by secondary contact with fresh water; in sustainably managing the use and development of land, and of discharges of contaminants.</p>	<p>The application includes an assessment of the existing life supporting capacity of the stream.</p> <p>The assessment concludes that for a number of reasons (including the existing discharge of wastewater) the existing stream ecology is poor. Furthermore it is accepted by Watercares' own assessment that continuing to discharge into Parker Lane for the interim will degrade water quality, through higher than acceptable concentrations of Ammonia, which will occur in low flow stream times. As such failing to give effect to Objective A1.</p> <p>Objective A1(b) seeks to achieve water quality that enables safe secondary contact.</p> <p>The NPSFM defines safe secondary contact as meaning peoples contact with freshwater that involves only occasional immersion and includes wading or boating. This is not considered relevant, as the Vision and Strategy for the Waikato River sets standards much higher than secondary contact, ie the ability to be able to swim and gather mahinga kai safely.</p>
<p>D. Tāngata whenua roles and interests</p> <p>Objective D1 To provide for the involvement of iwi and hapū, and to ensure that tāngata 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.</p>	<p>The health and wellbeing of Waikato Tainui and its special relationship with the Waikato River is inherently connected with the health and wellbeing of the Waikato River. Tangata whenua values are represented in in this CIA, and must be taken into account in order to have regard to NPSFM</p>





NPSFM Objectives and Policies	Ability of Option 1 to have regard to the NPSFM
<p>Policy D1 Local authorities shall take reasonable steps to: a) involve iwi and hapū in the management of fresh water and freshwater ecosystems in the region; b) work with iwi and hapū to identify tāngata whenua values and interests in fresh water and freshwater ecosystems in the region; and c) reflect tāngata whenua values and interests in the management of, and decision-making regarding, fresh water and freshwater ecosystems in the region.</p>	
National Bottom Line - Ammonia	Fails

Waikato-Tainui Environmental Plan

Specific objectives, policies and methods	The ability of the proposed option 1 to have regard to the Waikato-Tainui Environmental Plan
<p>7 Towards Environmental Enhancement</p> <p>11.7 Objectives, Policies & Methods Objective – Te Ture Whaimana prevails</p> <p>11.7.1 Te Ture Whaimana prevails in any resource management, use and activity within the Waikato River catchment in the Waikato-Tainui rohe.</p> <p>Policy – Te Ture Whaimana prevails</p>	<p>The applicant does not identify how it has had regard to section 7. This option does not provide for positive environmental or social outcomes.</p> <p>The proposed development of Option 1 does not accord the necessary weight to Te Ture Whaimana. The proposed development as stated above in the specific Vision and Strategy review, does not restore and enhance the health and wellbeing of the Waikato River.</p>



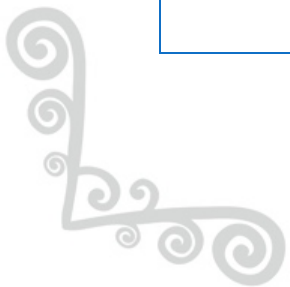


Specific objectives, policies and methods	The ability of the proposed option 1 to have regard to the Waikato-Tainui Environmental Plan
<p>11.7.1.1 To ensure that Te Ture Whaimana prevails in any resource management, use and activity within the Waikato River catchment in the Waikato-Tainui rohe.</p> <p>Methods</p> <p>(a) Resource management, use, and activities within the Waikato River catchment in the Waikato-Tainui rohe is consistent with Te Ture Whaimana.</p>	
<p>Section D19 – Freshwater</p> <p>Summary of the Waikato-Tainui view of water, and regard for its use can be broadly noted as the following:</p> <p>(a) Wai Ora – Life giving and sustaining. These waters are generally regarded as pristine, sanctified water, primarily used for “higher” purposes such as ceremonial use, blessings, cleansing of chiefs etc. These waters are generally spring waters (puna), or in areas specifically designated for higher purposes. These waters must be protected.</p> <p>(b) Wai Maaori – Useable for general purposes. These are waters that can be used for general purposes such as drinking, recreation, sustenance, economic use and provision for food gathering. Waters used to sustain the marae functions should be protected for marae use. Waters used for general purpose should be managed in a way that ensures the future of the tribe can be sustained.</p> <p>(c) Wai Kino – Waters of limited use. These waters can still be used generally, but may have limited ability to sustain life or to be safely used due to poor water quality, accessibility, or other limiting factors. These waters require greater management to ensure safe and optimal use.</p> <p>(d) Wai Mate – Waters that have exceeded the ability to properly sustain life. These waters are regarded as not fit for human or certain productive use. To some they are identified as ‘dead’ waters, but to Waikato-Tainui, no water is regarded as being ‘dead’, as all things, including water, have mauri. Therefore, these waters must be better managed and restored to a higher quality.</p>	<p>The Waikato River is the Awa Tupuna (ancestral river) and tangata whenua view the river as an indivisible entity. So any harm to the mauri (life force) of the river is considered to be harmful to the mauri of the Waikato-Tainui people. Water quality will be degraded further as a result of the increased volumes of wastewater discharge, and therefore this option will not improve the water quality to achieve a water state that is without limitations, maintains and enhances that values for which tangata whenua have identified as being important, and assists in achieving the Vision and Strategy.</p>





Specific objectives, policies and methods	The ability of the proposed option 1 to have regard to the Waikato-Tainui Environmental Plan
<p>19.1.3 The classification of water into the above 'states' of water should be determined by whaanau, marae, hapuu, and iwi who are kaitiaki and/or exercise mana whenua over part or all of a water body, and be incorporated in the future of water management.</p> <p>The relationship between Waikato-Tainui and Water</p> <p>19.3.2 The regard that Waikato-Tainui has for the Waikato River cannot be understated. Historically, through tikanga and kawa, Waikato-Tainui learned how to manage water bodies to ensure their capacity to sustain the tribe. Over many generations, successive governments, and the development of plans and policies that dictate the management of all water bodies, the ability of Waikato-Tainui to actively manage its waters diminished.</p>	
<p>Water Quality</p> <p>19.3.4 The quality of water determines the relationship that the tribe has with its waters. Environmental degradation, at a national level, has occurred at a large cost and the physical, chemical, and biological quality of water has deteriorated as a result of both point source pollution (discharges into a body of water at a single location), and non-point source pollution (contamination from diffuse sources). The waters of the Waikato region have been modified to support economic gains, and the impacts of previous poor management practices are increasingly being seen. As a result, human impacts from such uses as farming/agriculture, wastewater discharges, damming, horticulture, urban development, alterations to the natural hydrology (straightening) of rivers and streams, and forestry conversions have modified natural water flows and increased the degree of contaminants that a water body receives resulting in a decrease in water quality of rivers and streams, and forestry conversions have modified natural water flows and the degree of contaminants that a water body receives resulting in a decrease in water quality.</p>	<p>The proposed development has not had regard to this objective as the quality of water being discharged will not allow for drinkable water the length of the river, will not improve the quality of the water for safe swimming, and will have detrimental effects for the life supporting capacity of the river ecosystem, therefore affecting the ability to harvest mahinga kai</p>





Specific objectives, policies and methods	The ability of the proposed option 1 to have regard to the Waikato-Tainui Environmental Plan
<p>Objective – water quality</p> <p>19.4.2 Water quality is such that fresh waters within the rohe of Waikato-Tainui are drinkable, swimmable and fishable in all places (with water quality to the level that Kiingi Taawhiao could have expected in his time).</p>	
<p>Section D20 – Wetlands</p> <p>20.1.2 For Waikato-Tainui, the lower Waikato wetlands are areas of huge significance. Due to the concealing nature of wetlands, people would store and preserve taonga within them, thus ensuring the safety of those taonga. Key wetlands continue to conceal the koiwi of Waikato-Tainui tuupuna who lost their lives during the battles of Rangiriri and Meremere in 1863.</p> <p>20.1.3 Wetlands are an integral component within the whakapapa of Waikato-Tainui rivers and lakes. They provide important spawning grounds and habitat for fish and other taonga species. They also provide important ecosystem services such as reducing peak flood flows, increasing low flows, and trapping and removing sediments and nutrients.</p>	<p>The River delta consists of a number of islands that are covered in Kahikatea, Harakeke, Raupo, Kiekie, and other plant life. Many species of birds also make the lower River their home.</p> <p>Land drainage and flood protection works have seen the demise of large areas of wetlands. Tides still cover the some lands and islands maintaining swampy areas that provide habitat for plants, birds and fish.</p> <p>Restoration and protection of the Waikato River includes the restoration and protection of habitats that provide quality ecosystems for the fish, flora and fauna of the lower Waikato River.</p> <p>This proposal contributes to the loss of habitat on the river due to potential permanence of the structure.</p>

Option 2: Rock Wall Discharge - Stage 2 – Years 3 to 2019

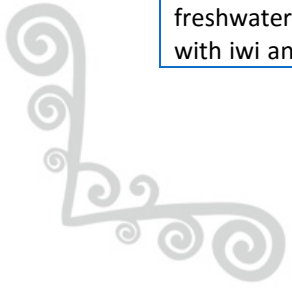
This proposed option will see the development of a Rockwall on the Waikato River bank, to discharge treated wastewater for a period of 3 years. This option will not introduce any new treatment technology, the treated water quality will be similar to what is currently being discharged, but will see greater dilution rates than those occurring currently in Parker Lane Stream. This option would remove the need for additional structures to be located within the river bed, such as a Diffuser.

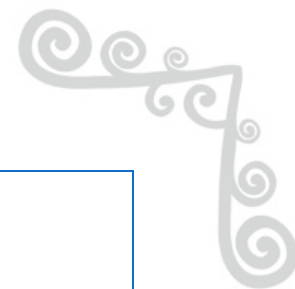




National Policy Statement on Freshwater Management

NPSFM Objectives and Policies	Ability of Option 2 to have regard to the NPSFM
<p>A. Water quality 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, at least as affected by secondary contact with fresh water; in sustainably managing the use and development of land, and of discharges of contaminants.</p>	<p>The application includes an assessment of the existing life supporting capacity of the Waikato River. The assessment concludes that for a number of reasons (including the existing discharge WWTP), the existing river ecology is poor. While the proposal will certainly not improve water quality in a way that will assist in achieving Objective A1, it is acknowledged that (according to the application) the use of a rock wall prior to discharge to the river will have no significant adverse impacts on existing stream water quality.</p> <p>Objective A1(b) seeks to achieve water quality that enables safe secondary contact. The NPSFM defines secondary contact as meaning people's contact with fresh water that involves only occasional immersion and includes wading or boating. This is not considered relevant, as the Vision and Strategy for the Waikato River sets expectations for standards much higher than secondary contact (specifically the ability to be able to swim and gather mahinga kai safely).</p>
<p>D. Tāngata whenua roles and interests Objective D1 To provide for the involvement of iwi and hapū, and to ensure that tāngata 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.</p> <p>Policy D1 Local authorities shall take reasonable steps to: a) involve iwi and hapū in the management of fresh water and freshwater ecosystems in the region; b) work with iwi and hapū to identify tāngata whenua</p>	<p>The health and wellbeing of Waikato-Tainui and its special relationship with the Waikato River is inherently connected with the health and wellbeing of the Waikato River. Tangata whenua values and interests are represented in this Cultural Impact Assessment, and must be taken into account in order to have regard to Objective D1 of the NPSFM.</p>





values and interests in fresh water and freshwater ecosystems in the region; and c) reflect tāngata whenua values and interests in the management of, and decision-making regarding, fresh water and freshwater ecosystems in the region.	
National Bottom line - Ammonia	It is noted that unlike the status quo (Option 1), with the use of a rock wall ammonia levels are above the National Bottom Line identified in the NPSFM.

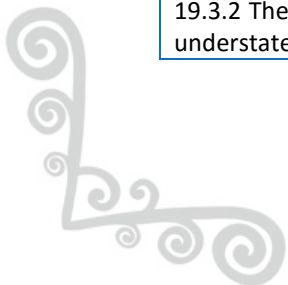
Waikato-Tainui Environmental Plan

Specific objectives, policies and methods	The ability of the proposed option 2 to have regard to the Waikato-Tainui Environmental Plan
<p>7 Towards Environmental Enhancement</p> <p>11.7 Objectives, Policies & Methods</p> <p>Objective – Te Ture Whaimana prevails</p> <p>11.7.1 Te Ture Whaimana prevails in any resource management, use and activity within the Waikato River catchment in the Waikato-Tainui rohe.</p> <p>Policy – Te Ture Whaimana prevails</p> <p>11.7.1.1 To ensure that Te Ture Whaimana prevails in any resource management, use and activity within the Waikato River catchment in the Waikato-Tainui rohe.</p> <p>Methods</p> <p>(a) Resource management, use, and activities within the Waikato River catchment in the Waikato-Tainui rohe is consistent with Te Ture Whaimana.</p> <p>Section D19 – Freshwater</p> <p>Summary of the Waikato-Tainui view of water, and regard for its use can be broadly noted as the following:</p>	<p>The applicant does not identify how it has had regard to section 7. This option does not provide for positive environmental or social outcomes.</p> <p>The proposed development does not give effect to Section 11.7 of the Environmental Management Plan. The proposal will (at best) maintain current water quality and not restore or protect the health and wellbeing of the Waikato River.</p> <p>The Waikato River is the Awa Tupuna (ancestral river) and tangata whenua view the river as an indivisible entity. So any harm to the mauri (life force) of the river is considered to be harmful to the mauri of the Waikato-Tainui people. Water quality will not be improved as a result of the increased volumes of wastewater discharge (at best it remains the same),</p>



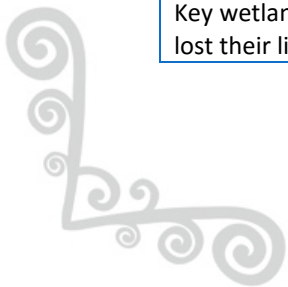


Specific objectives, policies and methods	The ability of the proposed option 2 to have regard to the Waikato-Tainui Environmental Plan
<p>(a) Wai Ora – Life giving and sustaining. These waters are generally regarded as pristine, sanctified water, primarily used for “higher” purposes such as ceremonial use, blessings, cleansing of chiefs etc. These waters are generally spring waters (puna), or in areas specifically designated for higher purposes. These waters must be protected.</p> <p>(b) Wai Maaori – Useable for general purposes. These are waters that can be used for general purposes such as drinking, recreation, sustenance, economic use and provision for food gathering. Waters used to sustain the marae functions should be protected for marae use. Waters used for general purpose should be managed in a way that ensures the future of the tribe can be sustained.</p> <p>(c) Wai Kino – Waters of limited use. These waters can still be used generally, but may have limited ability to sustain life or to be safely used due to poor water quality, accessibility, or other limiting factors. These waters require greater management to ensure safe and optimal use.</p> <p>(d) Wai Mate – Waters that have exceeded the ability to properly sustain life. These waters are regarded as not fit for human or certain productive use. To some they are identified as ‘dead’ waters, but to Waikato-Tainui, no water is regarded as being ‘dead’, as all things, including water, have mauri. Therefore, these waters must be better managed and restored to a higher quality.</p> <p>19.1.3 The classification of water into the above ‘states’ of water should be determined by whaanau, marae, hapuu, and iwi who are kaitiaki and/or exercise mana whenua over part or all of a water body, and be incorporated in the future of water management.</p> <p>The relationship between Waikato-Tainui and Water</p> <p>19.3.2 The regard that Waikato-Tainui has for the Waikato River cannot be understated. Historically, through tikanga and kawa, Waikato-Tainui learned</p>	<p>and therefore this option will not improve the water quality to achieve a water state that is without limitations, maintains and enhances that values for which tangata whenua have identified as being important, and assists in achieving the Vision and Strategy.</p>





Specific objectives, policies and methods	The ability of the proposed option 2 to have regard to the Waikato-Tainui Environmental Plan
<p>how to manage water bodies to ensure their capacity to sustain the tribe. Over many generations, successive governments, and the development of plans and policies that dictate the management of all water bodies, the ability of Waikato-Tainui to actively manage its waters diminished.</p>	
<p>Water Quality 19.3.4 The quality of water determines the relationship that the tribe has with its waters. Environmental degradation, at a national level, has occurred at a large cost and the physical, chemical, and biological quality of water has deteriorated as a result of both point source pollution (discharges into a body of water at a single location), and non-point source pollution (contamination from diffuse sources). The waters of the Waikato region have been modified to support economic gains, and the impacts of previous poor management practices are increasingly being seen. As a result, human impacts from such uses as farming/agriculture, wastewater discharges, damming, horticulture, urban development, alterations to the natural hydrology (straightening) of rivers and streams, and forestry conversions have modified natural water flows and increased the degree of contaminants that a water body receives resulting in a decrease in water quality of rivers and streams, and forestry conversions have modified natural water flows and the degree of contaminants that a water body receives resulting in a decrease in water quality.</p> <p>Objective – water quality 19.4.2 Water quality is such that fresh waters within the rohe of Waikato-Tainui are drinkable, swimmable and fishable in all places (with water quality to the level that Kiingi Taawhiao could have expected in his time).</p>	<p>The proposed development does not have regard to this objective as the quality of water being discharged will not allow for drinkable water the length of the river, will not improve the quality of the water for safe swimming, and will have detrimental effects for the life supporting capacity of the river ecosystem, therefore affecting the ability to harvest mahinga kai.</p>
<p>Section D20 – Wetlands 20.1.2 For Waikato-Tainui, the lower Waikato wetlands are areas of huge significance. Due to the concealing nature of wetlands, people would store and preserve taonga within them, thus ensuring the safety of those taonga. Key wetlands continue to conceal the koiwi of Waikato-Tainui tuupuna who lost their lives during the battles of Rangiriri and Meremere in 1863.</p>	<p>The River delta consists of a number of islands that are covered in Kahikatea, Harakeke, Raupo, Kiekie, and other plant life. Many species of birds also make the lower River their home.</p>





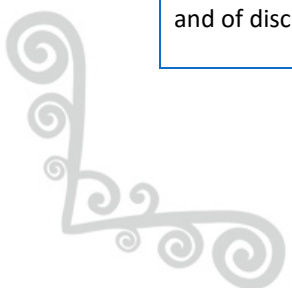
Specific objectives, policies and methods	The ability of the proposed option 2 to have regard to the Waikato-Tainui Environmental Plan
20.1.3 Wetlands are an integral component within the whakapapa of Waikato-Tainui rivers and lakes. They provide important spawning grounds and habitat for fish and other taonga species. They also provide important ecosystem services such as reducing peak flood flows, increasing low flows, and trapping and removing sediments and nutrients.	<p>Land drainage and flood protection works have seen the demise of large areas of wetlands. Tides still cover the some lands and islands maintaining swampy areas that provide habitat for plants, birds and fish.</p> <p>Restoration and protection of the Waikato River includes the restoration and protection of habitats that provide quality ecosystems for the fish, flora and fauna of the lower Waikato River.</p> <p>This proposal contributes to the loss of habitat on the river due to potential permanence of the structure.</p>

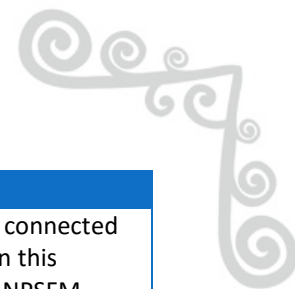
Option 3: Diffuser Discharge Stage 2 – Years 3 to 2019

This proposed option will see the development of a Diffuser in the Waikato River bed, to discharge treated wastewater for a period of 3 years. This option will not introduce any new treatment technology, the treated water quality will be similar to what is currently being discharged, but will see greater dilution rates than those occurring currently in Parker Lane Stream.

National Policy Statement on Freshwater Management

NPSFM Objectives and Policies	Ability of Option 3 to have regard to the NPSFM
<p>A. Water quality</p> <p>Objective A1</p> <p>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.</p>	<p>The application includes an assessment of the existing life supporting capacity of the Waikato River. The assessment concludes that for a number of reasons (including the existing discharge WWTP), the existing river ecology is poor. While the proposal will certainly not improve water quality in a way that will assist in achieving Objective A1, it is acknowledged that (according to the application) the use of a diffuser to discharge to the river will have no significant adverse impacts on existing river water quality.</p> <p>Objective A1(b) seeks to achieve water quality that enables safe secondary contact. The NPSFM defines secondary contact as meaning people's contact with fresh water that involves only occasional immersion and includes wading or boating. This is not considered relevant, as the Vision and Strategy for the Waikato River sets expectations for standards much higher than secondary contact (specifically the ability to be able to swim and gather mahinga kai safely).</p>





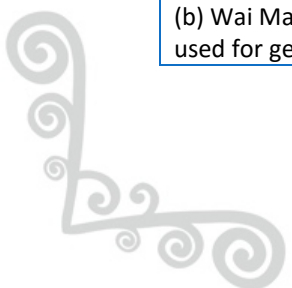
NPSFM Objectives and Policies	Ability of Option 3 to have regard to the NPSFM
<p>D. Tāngata whenua roles and interests Objective D1 To provide for the involvement of iwi and hapū, and to ensure that tāngata whenua values and interests are identified and reflected in the management of fresh water including associated ecosystems, and decision-making regarding freshwater planning, including on how all other objectives of this national policy statement are given effect to.</p> <p>Policy D1 Local authorities shall take reasonable steps to: a) involve iwi and hapū in the management of fresh water and freshwater ecosystems in the region; b) work with iwi and hapū to identify tāngata whenua values and interests in fresh water and freshwater ecosystems in the region; and c) reflect tāngata whenua values and interests in the management of, and decision-making regarding, fresh water and freshwater ecosystems in the region.</p>	<p>The health and wellbeing of Waikato-Tainui and its special relationship with the Waikato River is inherently connected with the health and wellbeing of the Waikato River. Tangata whenua values and interests are represented in this Cultural Impact Assessment, and must be taken into account in order to have regard to Objective D1 of the NPSFM.</p>
<p>National Bottom Line - Ammonia</p>	<p>It is noted that unlike the status quo (Option 1), with the use of a Diffuser, Ammonia levels are above the National Bottom Line identified in the NPSFM.</p>





Waikato-Tainui Environmental Plan

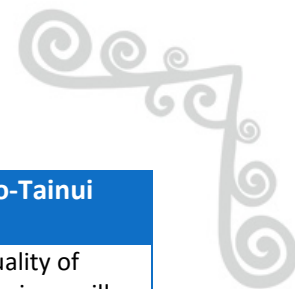
Specific objectives, policies and methods	The ability of the proposed option 3 to have regard to the Waikato-Tainui Environmental Plan
<p>7 Towards Environmental Enhancement</p> <p>11.7 Objectives, Policies & Methods Objective – Te Ture Whaimana prevails</p> <p>11.7.1 Te Ture Whaimana prevails in any resource management, use and activity within the Waikato River catchment in the Waikato-Tainui rohe.</p> <p>Policy – Te Ture Whaimana prevails</p> <p>11.7.1.1 To ensure that Te Ture Whaimana prevails in any resource management, use and activity within the Waikato River catchment in the Waikato-Tainui rohe.</p> <p>Methods (a) Resource management, use, and activities within the Waikato River catchment in the Waikato-Tainui rohe is consistent with Te Ture Whaimana.</p>	<p>The applicant does not identify how it has had regard to section 7. This option does not provide for positive environmental or social outcomes.</p> <p>The proposed development does not give effect to Section 11.7 of the Environmental Management Plan. The proposal will maintain current water quality and not restore or protect the health and wellbeing of the Waikato River.</p>
<p>Section D19 – Freshwater Summary of the Waikato-Tainui view of water, and regard for its use can be broadly noted as the following: (a) Wai Ora – Life giving and sustaining. These waters are generally regarded as pristine, sanctified water, primarily used for “higher” purposes such as ceremonial use, blessings, cleansing of chiefs etc. These waters are generally spring waters (puna), or in areas specifically designated for higher purposes. These waters must be protected. (b) Wai Maaori – Useable for general purposes. These are waters that can be used for general purposes such as drinking, recreation, sustenance, economic</p>	<p>The Waikato River is the Awa Tupuna (ancestral river) and tangata whenua view the river as an indivisible entity. So any harm to the mauri (life force) of the river is considered to be harmful to the mauri of the Waikato-Tainui people. Despite the effect of the diffuser diluting the discharge, water quality will not be improved as a result of the increased volumes of wastewater discharge (at best it remains the same), and therefore this option will not improve the water quality to achieve a water state that is without limitations, maintains and enhances that values for which tangata whenua have identified as being important, and assists in achieving the Vision and Strategy.</p>





Specific objectives, policies and methods	The ability of the proposed option 3 to have regard to the Waikato-Tainui Environmental Plan
<p>use and provision for food gathering. Waters used to sustain the marae functions should be protected for marae use. Waters used for general purpose should be managed in a way that ensures the future of the tribe can be sustained.</p> <p>(c) Wai Kino – Waters of limited use. These waters can still be used generally, but may have limited ability to sustain life or to be safely used due to poor water quality, accessibility, or other limiting factors. These waters require greater management to ensure safe and optimal use.</p> <p>(d) Wai Mate – Waters that have exceeded the ability to properly sustain life. These waters are regarded as not fit for human or certain productive use. To some they are identified as ‘dead’ waters, but to Waikato-Tainui, no water is regarded as being ‘dead’, as all things, including water, have mauri. Therefore, these waters must be better managed and restored to a higher quality.</p> <p>19.1.3 The classification of water into the above ‘states’ of water should be determined by whaanau, marae, hapuu, and iwi who are kaitiaki and/or exercise mana whenua over part or all of a water body, and be incorporated in the future of water management.</p> <p>The relationship between Waikato-Tainui and Water</p> <p>19.3.2 The regard that Waikato-Tainui has for the Waikato River cannot be understated. Historically, through tikanga and kawa, Waikato-Tainui learned how to manage water bodies to ensure their capacity to sustain the tribe. Over many generations, successive governments, and the development of plans and policies that dictate the management of all water bodies, the ability of Waikato-Tainui to actively manage its waters diminished.</p>	





Specific objectives, policies and methods	The ability of the proposed option 3 to have regard to the Waikato-Tainui Environmental Plan
<p>Water Quality 19.3.4 The quality of water determines the relationship that the tribe has with its waters. Environmental degradation, at a national level, has occurred at a large cost and the physical, chemical, and biological quality of water has deteriorated as a result of both point source pollution (discharges into a body of water at a single location), and non-point source pollution (contamination from diffuse sources). The waters of the Waikato region have been modified to support economic gains, and the impacts of previous poor management practices are increasingly being seen. As a result, human impacts from such uses as farming/agriculture, wastewater discharges, damming, horticulture, urban development, alterations to the natural hydrology (straightening) of rivers and streams, and forestry conversions have modified natural water flows and increased the degree of contaminants that a water body receives resulting in a decrease in water quality of rivers and streams, and forestry conversions have modified natural water flows and the degree of contaminants that a water body receives resulting in a decrease in water quality.</p> <p>Objective – water quality 19.4.2 Water quality is such that fresh waters within the rohe of Waikato-Tainui are drinkable, swimmable and fishable in all places (with water quality to the level that Kiingi Taawhiao could have expected in his time).</p>	<p>The proposed development will not have regard to this objective as the quality of water being discharged will not allow for drinkable water the length of the river, will not improve the quality of the water for safe swimming, and will continue to have detrimental effects for the life supporting capacity of the river ecosystem, therefore affecting the ability to harvest mahinga kai.</p>
<p>Section D20 – Wetlands 20.1.2 For Waikato-Tainui, the lower Waikato wetlands are areas of huge significance. Due to the concealing nature of wetlands, people would store and preserve taonga within them, thus ensuring the safety of those taonga. Key wetlands continue to conceal the koiwi of Waikato-Tainui tuupuna who lost their lives during the battles of Rangiriri and Meremere in 1863. 20.1.3 Wetlands are an integral component within the whakapapa of Waikato-Tainui rivers and lakes. They provide important spawning grounds and habitat for fish and other taonga species. They also provide important ecosystem</p>	<p>The River delta consists of a number of islands that are covered in Kahikatea, Harakeke, Raupo, Kiekie, and other plant life. Many species of birds also make the lower River their home.</p> <p>Land drainage and flood protection works have seen the demise of large areas of wetlands. Tides still cover the some lands and islands maintaining swampy areas that provide habitat for plants, birds and fish.</p>





Specific objectives, policies and methods	The ability of the proposed option 3 to have regard to the Waikato-Tainui Environmental Plan
services such as reducing peak flood flows, increasing low flows, and trapping and removing sediments and nutrients.	<p>Restoration and protection of the Waikato River includes the restoration and protection of habitats that provide quality ecosystems for the fish, flora and fauna of the lower Waikato River.</p> <p>This proposal contributes to the loss of habitat on the river due to potential permanence of the structure.</p>

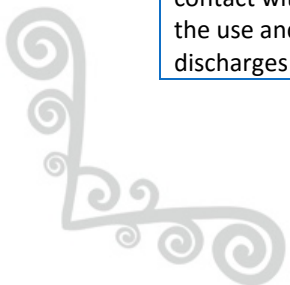
Option 4: Supplementary Water Take and Discharge Stage 2 – Years 3 to 2019

This option whilst not explained in any great detail in the application, represents an alternative that would result in dilution prior to the Waikato River. This option will require the consenting of additional water take, 500 litres per second, which is pumped back to the point where Parker Lane discharge occurs; the river water is then added to the discharge and dilution occurs before it enters the Waikato River. This option does require a significant structure to be located on the river bed to facilitate the water take and a pumping station on the river bank.

The water quality of this discharge is comparable to Options 2 and 3. This option does dilute the Ammonia in the water, which is an improvement on the status quo option which is the current discharge method to Parker Lane Stream. The benefit being that the water quality has improved prior to reaching the Waikato River.

This option whilst not included in the application, has been discussed with Te Taniwha o Waikato as a possible alternative.

NPSFM Objectives and Policies	Ability of Option 4 to have regard to the NPSFM
<p>A. Water quality 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, at least as affected by secondary contact with fresh water; in sustainably managing the use and development of land, and of discharges of contaminants.</p>	<p>The application includes an assessment of the existing life supporting capacity of the Waikato River. The assessment concludes that for a number of reasons (including the existing discharge WWTP), the existing river ecology is poor. While the proposal will certainly not improve water quality in a way that will assist in achieving Objective A1, it is acknowledged that (according to the application) the use of a supplementary watertake to discharge to the river will have no significant adverse impacts on existing river water quality.</p> <p>Objective A1(b) seeks to achieve water quality that enables safe secondary contact. The NPSFM defines secondary contact as meaning people's contact with fresh water that involves only occasional immersion and includes wading or boating. This is not considered relevant, as the Vision and Strategy</p>





	for the Waikato River sets expectations for standards much higher than secondary contact (specifically the ability to be able to swim and gather mahinga kai safely).
<p>D. Tāngata whenua roles and interests Objective D1 To provide for the involvement of iwi and hapū, and to ensure that tāngata 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.</p> <p>Policy D1 Local authorities shall take reasonable steps to: a) involve iwi and hapū in the management of fresh water and freshwater ecosystems in the region; b) work with iwi and hapū to identify tāngata whenua values and interests in fresh water and freshwater ecosystems in the region; and c) reflect tāngata whenua values and interests in the management of, and decision-making regarding, fresh water and freshwater ecosystems in the region.</p>	<p>The health and wellbeing of Waikato-Tainui and its special relationship with the Waikato River is inherently connected with the health and wellbeing of the Waikato River. Tangata whenua values and interests are represented in this Cultural Impact Assessment, and must be taken into account in order to have regard to Objective D1 of the NPSFM.</p>
National Bottom Line - Ammonia	<p>It is noted that unlike the status quo (Option 1), with the use of a Diffuser, Ammonia levels are above the National Bottom Line identified in the NPSFM.</p>





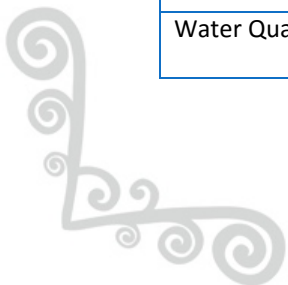
Waikato-Tainui Environmental Plan

Specific objectives, policies and methods	The ability of the proposed option 4 to have regard to the Waikato-Tainui Environmental Plan
<p>7 Towards Environmental Enhancement</p> <p>11.7 Objectives, Policies & Methods</p> <p>Objective – Te Ture Whaimana prevails</p> <p>11.7.1 Te Ture Whaimana prevails in any resource management, use and activity within the Waikato River catchment in the Waikato-Tainui rohe.</p> <p>Policy – Te Ture Whaimana prevails</p> <p>11.7.1.1 To ensure that Te Ture Whaimana prevails in any resource management, use and activity within the Waikato River catchment in the Waikato-Tainui rohe.</p> <p>Methods</p> <p>(a) Resource management, use, and activities within the Waikato River catchment in the Waikato-Tainui rohe is consistent with Te Ture Whaimana.</p>	<p>The applicant does not identify how it has had regard to section 7. This option does not provide for positive environmental or social outcomes.</p> <p>The proposed development does not give effect to Section 11.7 of the Environmental Management Plan. The proposal will maintain current water quality and not restore or protect the health and wellbeing of the Waikato River.</p>
<p>Section D19 – Freshwater</p> <p>Summary of the Waikato-Tainui view of water, and regard for its use can be broadly noted as the following:</p> <p>(a) Wai Ora – Life giving and sustaining. These waters are generally regarded as pristine, sanctified water, primarily used for “higher” purposes such as ceremonial use, blessings, cleansing of chiefs etc. These waters are generally spring waters (puna), or in areas specifically designated for higher purposes. These waters must be protected.</p>	<p>The Waikato River is the Awa Tupuna (ancestral river) and tangata whenua view the river as an indivisible entity. So any harm to the mauri (life force) of the river is considered to be harmful to the mauri of the Waikato-Tainui people. Despite the effect of the supplementary water take diluting the discharge, water quality will not be improved as a result of the increased volumes of wastewater discharge (at best it remains the same), and therefore this option will not improve the water quality to achieve a water state that is without limitations, maintains and enhances that values for which tangata whenua have identified as being important, and assists in achieving the Vision and Strategy.</p>





<p>(b) Wai Maaori – Useable for general purposes. These are waters that can be used for general purposes such as drinking, recreation, sustenance, economic use and provision for food gathering. Waters used to sustain the marae functions should be protected for marae use. Waters used for general purpose should be managed in a way that ensures the future of the tribe can be sustained.</p> <p>(c) Wai Kino – Waters of limited use. These waters can still be used generally, but may have limited ability to sustain life or to be safely used due to poor water quality, accessibility, or other limiting factors. These waters require greater management to ensure safe and optimal use.</p> <p>(d) Wai Mate – Waters that have exceeded the ability to properly sustain life. These waters are regarded as not fit for human or certain productive use. To some they are identified as ‘dead’ waters, but to Waikato-Tainui, no water is regarded as being ‘dead’, as all things, including water, have mauri. Therefore, these waters must be better managed and restored to a higher quality.</p> <p>19.1.3 The classification of water into the above ‘states’ of water should be determined by whaanau, marae, hapuu, and iwi who are kaitiaki and/or exercise mana whenua over part or all of a water body, and be incorporated in the future of water management.</p> <p>The relationship between Waikato-Tainui and Water</p> <p>19.3.2 The regard that Waikato-Tainui has for the Waikato River cannot be understated. Historically, through tikanga and kawa, Waikato-Tainui learned how to manage water bodies to ensure their capacity to sustain the tribe. Over many generations, successive governments, and the development of plans and policies that dictate the management of all water bodies, the ability of Waikato-Tainui to actively manage its waters diminished.</p>	
Water Quality	The proposed development has not had regard to this objective, as the quality of water being discharged will not allow for drinkable water the length of the river.





<p>19.3.4 The quality of water determines the relationship that the tribe has with its waters. Environmental degradation, at a national level, has occurred at a large cost and the physical, chemical, and biological quality of water has deteriorated as a result of both point source pollution (discharges into a body of water at a single location), and non-point source pollution (contamination from diffuse sources). The waters of the Waikato region have been modified to support economic gains, and the impacts of previous poor management practices are increasingly being seen. As a result, human impacts from such uses as farming/agriculture, wastewater discharges, damming, horticulture, urban development, alterations to the natural hydrology (straightening) of rivers and streams, and forestry conversions have modified natural water flows and increased the degree of contaminants that a water body receives resulting in a decrease in water quality of rivers and streams, and forestry conversions have modified natural water flows and the degree of contaminants that a water body receives resulting in a decrease in water quality.</p> <p>Objective – water quality</p> <p>19.4.2 Water quality is such that fresh waters within the rohe of Waikato-Tainui are drinkable, swimmable and fishable in all places (with water quality to the level that Kiingi Taawhiao could have expected in his time).</p>	
<p>Section D20 – Wetlands</p> <p>20.1.2 For Waikato-Tainui, the lower Waikato wetlands are areas of huge significance. Due to the concealing nature of wetlands, people would store and preserve taonga within them, thus ensuring the safety of those taonga. Key wetlands continue to conceal the koiwi of Waikato-Tainui tuupuna who lost their lives during the battles of Rangiriri and Meremere in 1863.</p> <p>20.1.3 Wetlands are an integral component within the whakapapa of Waikato-Tainui rivers and lakes. They provide important spawning grounds and habitat for fish and other taonga species. They also provide important ecosystem services such as reducing peak flood flows, increasing low flows, and trapping and removing sediments and nutrients.</p>	<p>The River delta consists of a number of islands that are covered in Kahikatea, Harakeke, Raupo, Kiekie, and other plant life. Many species of birds also make the lower River their home.</p> <p>Land drainage and flood protection works have seen the demise of large areas of wetlands. Tides still cover the some lands and islands maintaining swampy areas that provide habitat for plants, birds and fish.</p> <p>Restoration and protection of the Waikato River includes the restoration and protection of habitats that provide quality ecosystems for the fish, flora and fauna of the lower Waikato River.</p> <p>This proposal contributes to the loss of habitat on the river due to potential permanence of the structure.</p>





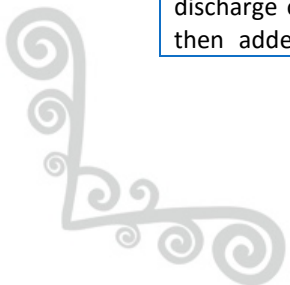
Comparative Table

Proposed Options	Vision & Strategy Objectives													National Policy Statement FM				Waikato Iwi EP		
	1	2	3	4	5	6	7	8	9	10	11	12	13	OA1*	OD1*	PD1*	NBL/A*	7	11.7	D19
<p>Option One – Status Quo and Years 1 – 3 of Proposal – Parker Lane Discharge</p> <p>This option will see the discharge continue in its current location but with an increase in the discharge from 8,450 to 36,600 cubic metres per day of treated wastewater to the Parker Lane Stream.</p> <p>This option promotes no technological improvements to the process or water quality discharge improvements.</p>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	?	x	x
<p>Option Two – Rock Wall Discharge – Stage 2 – Years 3 to 2019</p> <p>This proposed option will see the development of a Rockwall on the Waikato River bank to discharge treated wastewater for a period of 3 years.</p> <p>This option will not introduce any new treatment technology, the treated water quality will be similar to what is currently being discharged but will see greater dilution rates than those occurring currently in Parker Lane Stream.</p>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	?	x	x





Proposed Options	Vision & Strategy Objectives													National Policy Statement FM				Waikato Iwi EP		
	1	2	3	4	5	6	7	8	9	10	11	12	13	OA1*	OD1*	PD1*	NBL/A*	7	11.7	D19
This option would remove the need for additional structures to be located within the river bed, such as the diffuser.																				
<p>Option Three – Diffuser Discharge Stage 2 – Years 3 – 2019</p> <p>This proposed option will see the development of a Diffuser in the Waikato River bed to discharge treated wastewater for a period of 3 years.</p> <p>This option will not introduce any new treatment technology, the treated water quality will be similar to what is currently being discharged but will see greater dilution rates than those currently in Parker Lane Stream.</p>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	?	x	x
<p>Option 4</p> <p>This option whilst not explained in any great detail in the application represents an alternative that would result in dilution prior to the Waikato River. This option will require the consenting of an additional water take, 500 litres per second which is pumped back to the point where the Parker Lane discharge occurs, the river water is then added to the discharge and</p>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	?	x	x





Proposed Options	Vision & Strategy Objectives													National Policy Statement FM				Waikato Iwi EP		
	1	2	3	4	5	6	7	8	9	10	11	12	13	OA1*	OD1*	PD1*	NBL/A*	7	11.7	D19
<p>dilution occurs before it enters the Waikato River.</p> <p>This option does require a significant structure to be located on the river bed to facilitate the water take and a pumping station on the river bank. The water quality of this option is comparable to Options 2 & 3. This option does dilute the Ammonia n the water which is an improvement on the status quo option which is the current discharge method to Parker Lane Stream. The benefit being that the water quality has improved prior to reaching the Waikato River.</p> <p>This option whilst not included in the application has been discussed with Te Taniwha o Waikato as a possible alternative.</p>																				

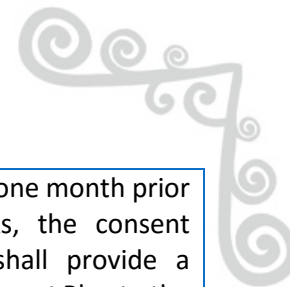




Appendix B - Municipal Discharge Audit

WWTP	Consent approval	Consent expiry	Secondary treatment	Tertiary treatment	Diffusion Method	Volume (quantity of discharge consented)	Expected discharge quality (consented)	Upgrades required
<i>Ngaruawahia WWTP</i>	13 April 2012	31 st of March 2029	Oxidation pond	UV	Multi-port diffuser located on the bed of the Waikato River	Not exceeding 11,200 cubic metres per day	<p>pH levels no less than 6 or greater than 9 pH units;</p> <p>Median 5 day carbonaceous biochemical oxygen demand concentration shall not exceed 30 grams per m³ and the 90th percentile shall not exceed 60 grams per m³;</p> <p>Median suspended solids concentration shall not exceed 30 grams per m³ and the 90th percentile shall not exceed 60 grams per m³;</p> <p>Median ammoniacal-nitrogen concentration shall not</p>	<p>Decommissioning of the wetland, gravel filter and construction of the rock-lined channel shall be completed within 12 months of the commencement of this resource consent by 23 April 2013.</p> <p>Consent holder shall decommission the wetland and gravel filter, and construct the rock-lined channel in a way that will minimise sediment losses.</p> <p>Works are to be consistent with the WRC "Erosion and Sediment Control – Guidelines for Soil Disturbing Activities".</p>

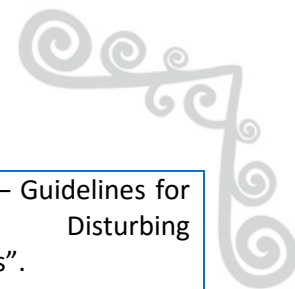




						<p>exceed 10 grams per m³ and the 90th percentile shall not exceed 20 grams per m³;</p> <p>Median total nitrogen (TN) concentration shall not exceed 25 grams per m³;</p> <p>Median summer total nitrogen concentration shall not exceed 20 grams per m³;</p> <p>Median summer total nitrogen load for NWWTP and HWWTP combined shall not exceed 57 kgs per day;</p> <p>Median total phosphorus concentration shall not exceed 8 grams per m³;</p> <p>Median summer total phosphorus concentration shall not exceed 8 grams per m³;</p>	<p>At least one month prior to works, the consent holder shall provide a Management Plan to the WRC.</p> <p>If a “trigger” level is met the consent holder shall design, build and commission the appropriate upgrade to the treatment process within two years after the “trigger” level is reached.</p> <p>Unless otherwise agreed with the WRC in writing, the consent holder shall ensure that the treatment system is upgraded in accordance with the application documentation to the satisfaction of WRC.</p>
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							<p>Median summer phosphorus load for NWWTP and HWWTP combined shall not exceed 17.3 kgs per day;</p> <p>Median E.coli concentration shall not exceed 126 cfu per 100 millilitres.</p>	
Huntly WWTP	13 April 2012	31 st of March 2029	Aeration basin and clarifiers	UV	Multi-port diffuser located on the bed of the Waikato River	Not exceed 11,500 cubic metres per day	<p>The pH of the discharge shall not be less than 6 or greater than 9 pH units;</p> <p>Median five day carbonaceous biochemical oxygen demand concentration shall not exceed 30g per m³ and the 90th percentile shall not exceed 60g per m³;</p> <p>Median suspended solids concentration shall not exceed 30g per m³ and the 90th</p>	<p>Decommissioning of the gravel filters and construction of the rock-lined channel shall be completed within 12 months of commencement of this resource consent.</p> <p>Consent holder shall decommission the gravel filters, and construct the rock-lined channel in a way that will minimise sediment losses. Works are to be consistent with the WRC "Erosion and Sediment</p>



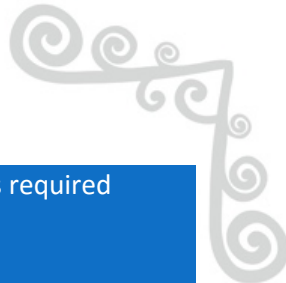
							<p>percentile shall not exceed 100g per m³;</p> <p>Monitoring point for suspended solids shall be at the outlet from the gravel beds until 30 Nov 2016. From 1 Dec 2016 the median suspended solids concentration shall not exceed 30g per m³.</p> <p>Median ammoniacal-nitrogen concentration shall not exceed 10g per m³ and the 90th percentile shall not exceed 20g per m³;</p> <p>Median total nitrogen concentration shall not exceed 25g per m³;</p> <p>Median summer total nitrogen concentration shall not exceed 20g per m³;</p> <p>Median summer total nitrogen load for</p>	<p>Control – Guidelines for Soil Disturbing Activities”.</p> <p>At least one month prior to decommissioning the gravel filters, the consent holder shall provide a Management Plan to the WRC.</p> <p>If a “trigger” level will be met the consent holder shall design, build and commission the appropriate upgrade to the treatment process within two years after the “trigger” level is reached.</p> <p>Unless otherwise agreed with the WRC in writing, the consent holder shall ensure that the treatment system is upgraded in accordance with the application documentation to the satisfaction of WRC.</p>
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							<p>NWWTP and HWWTP combined shall not exceed 57 kgs per day;</p> <p>Median total phosphorus concentration shall not exceed 8g per m³;</p> <p>Median summer total phosphorus concentration shall not exceed 8g per m³;</p> <p>Median summer total phosphorus load for NWWTP and HWWTP combined shall not exceed 17.3 kgs per day;</p> <p>Median E-coli concentration in any 12 month period shall not exceed 126 cfu per 100 millilitres.</p>	
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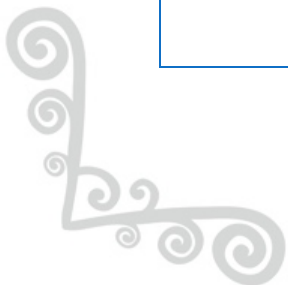


WWTP	Consent approval	Consent expiry	Secondary treatment	Tertiary treatment	Diffusion Method	Volume (quantity of discharge consented)	Expected discharge quality (consented)	Upgrades required
<i>Te Kauwhata Wastewater Treatment Plant (discharge into Lake Waikare)</i>	2008	Fifteenth years after the date of its commencement	Aqua mats	Wetland	-	Not exceed 3,600 cubic metres per day	<p>Median five day carbonaceous biochemical oxygen demand concentration shall not exceed 10g per m³ and the 90th percentile shall not exceed 20g per m³;</p> <p>Median suspended solids concentration shall not exceed 15g per m³ and the 90th percentile shall not exceed 25g per m³;</p> <p>Median Total Nitrogen concentration shall not exceed 6g per m³ and the 90th percentile shall not exceed 12g per m³;</p> <p>Median total nitrogen concentration shall not exceed 8g per m³;</p>	The consent holder shall investigate alternative disposal locations for the disposal of treated wastewater from the Te Kauwhata Wastewater Scheme and, within two years of the commencement of this consent, shall provide a report to the Waikato Regional Council with a preliminary assessment of the alternative options.





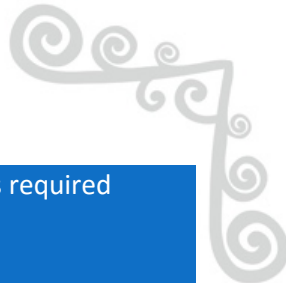
							<p>Median total nitrogen load shall not exceed 8.8 kgs per day;</p> <p>Median total phosphorus concentration shall not exceed 5.6g per m³;</p> <p>Median total phosphorus load shall not exceed 3.1 kgs per day;</p> <p>Median E-coli concentration in any 12 month period shall not exceed 1500 MPN per 100 millilitres.</p>	
<i>Meremere Wastewater Treatment Plant</i>	5 TH of August 2003	5 TH of August 2018	Oxidation ponds	Planted rock filter	Pumped to diffuser outlet in Waikato River	Not exceed 480 cubic metres per day	<p>Median total Kjeldahl Nitrogen shall not exceed 12g per m³, and the 90th percentile shall not exceed 15g per m³;</p> <p>Median Ammoniacal Nitrogen shall not exceed 8g per m³, and the 90th percentile</p>	The consent holder shall provide to the Waikato Regional Council, Watercare Services Limited Ngati Naho Co-operative Society and Mercer Rowing Club Incorporated a written monitoring report by 1 June 30 September each year that this consent is current.






							<p>shall not exceed 10g per m³;</p> <p>Median total Phosphorus shall not exceed 5g per m³, and the 90th percentile shall not exceed 7g per m³;</p> <p>Median Biochemical Oxygen Demand shall not exceed 15g per m³, and the 90th percentile shall not exceed 20g per m³;</p> <p>Median Suspended Solids shall not exceed 20g per m³, and the 90th percentile shall not exceed 30g per m³;</p> <p>Median E.coli shall not exceed 3,500 MPN per 100ml, and the 90th percentile shall not exceed 17,000 MPN per 100ml.</p>	
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WWTP	Consent approval	Consent expiry	Secondary treatment	Tertiary treatment	Diffusion Method	Volume (quantity of discharge consented)	Expected discharge quality (consented)	Upgrades required
<i>Te Kuiti Wastewater Treatment Plant (discharge to the Mangaokewa Stream)</i>	2008	30 January 2040	Activated sludge and clarifier filters	UV light	Discharged to Mangaokewa stream	Not exceed 7,000 cubic metres per day	<p>Concentration of E.coli shall not exceed 200 MPN/100ml in more than 2 of 20 consecutive samples AND over December to March inclusive, no consecutive sample shall exceed 235 MPN/100ml.</p> <p>Unfiltered five day carbonaceous biochemical oxygen demand shall not exceed 20 g/m³ in more than 2 of 20 consecutive samples AND over December to March inclusive, no sample shall exceed 20 g/m³.</p> <p>Ammoniacal Nitrogen shall not exceed 12 g/m³ in more than 2 of 20 consecutive</p>	<p>The Consent Holder shall undertake riparian planting with native species, including but not limited to planning, weeding, fencing and maintenance, to the value of no less than \$15,000 per year for the first five years that the consent is operative.</p> <p>To offset the effect of the activities authorised by this consent, the Consent Holder shall within 3 years undertake a fish passage/migration barrier assessment of Waitomo District Council owned structures in the Mangaokewa Stream and tributaries, above the discharge.</p>





							<p>samples AND over December to March inclusive, no sample shall exceed 12 g/m³.</p> <p>Total Oxygen Demand shall not exceed 74 g/m³ over December to March inclusive.</p> <p>Total Suspended Solids in the discharge shall not exceed 20g/m³ in more than 2 of 20 consecutive samples.</p> <p>Total Nitrogen daily load discharged shall not exceed a median of 43 kg/day based on weekly samples over December to March inclusive.</p> <p>Total Phosphorus daily load shall not exceed a median of 30 kg/day based on weekly samples over December to March inclusive.</p>	
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							The pH of the discharge shall be maintained between 6 and 8.	
<i>Watercare Service Ltd Wastewater Treatment Plant Tuakau (discharge into Parker Lane Stream)</i>	20 th of July 1995	30 th June 2015	Oxidation ponds, mechanical aerators	Wetland and gravel seepage bed	-	Not exceeding 8450 cubic metres (dry weather flow)	<p>Ammoniacal nitrogen concentration shall not exceed 10g per m³ for 10% of the 26 samples. Ammoniacal nitrogen concentration shall not exceed 15g per m³.</p> <p>Total phosphorus concentration shall not exceed 8g per m³ for 10% of the of the 26 samples.</p> <p>Total phosphorus concentration shall not exceed 10g per m³.</p> <p>Suspended solids concentration shall not exceed 18g per m³ for 10% of the of the 26 samples.</p> <p>The suspended solids concentration shall not exceed 20g per m³.</p>	The upgraded treatment system shall be operational so it is capable of producing an effluent quality as detailed in the document titled "Assessment of Environmental Effects, Pukekohe/Tuakau Oxidation Ponds, Revised November 1994" prepared for Franklin District Council by Beca Steven in support of this application within two years of the date of granting of this permit.





							<p>5 day biochemical oxygen demand concentration shall not exceed 12g per m³ for 10% of the of the 26 samples.</p> <p>The 5 day biochemical oxygen demand concentration shall not exceed 15g per m³. Number of faecal coliform bacteria shall not exceed 103 for 10% of the of the 26 samples.</p> <p>The number of faecal coliform bacteria shall not exceed 104.</p>	
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<i>Tokoroa Wastewater Treatment Plant (discharge into the Whakauru Stream)</i>	3 rd May 1995	31 st of December 2011	Activated Sludge	UV	Discharge to Whakauru stream	<p>Periods when flows in the Whakauru Stream are at Q5 flows or below: Discharge rate shall not exceed 4000m³/d or an instantaneous flow rate of 95l/s.</p> <p>Periods when flows in the Whakauru Stream are above Q5 flows: The daily discharge rate shall be permitted to increase proportionally with stream flow to a maximum of 6000m³/d or an</p>	<p>Five day biochemical oxygen demand shall not exceed 12g per m³ as determined from a 24 hour flow balanced composite sample.</p> <p>Concentration of suspended solids shall not exceed 12g per m³ as determined from a 24 hour flow balanced composite sample.</p> <p>Concentration of ammoniacal nitrogen shall not exceed 5g per m³ measured as N as determined from a 24 hour flow balanced composite sample and the monthly mean of daily spot samples.</p> <p>Concentration of nitrite-nitrogen shall not exceed 0.5g per m³ measured as N as determined from a 24 hour flow balanced composite and the monthly mean of daily spot samples.</p>	The Grantee shall investigate improvements and advancements in technology as applicable to the operations occurring on this site with respect to improving the processes, minimising contaminant loadings, and improving the reliability of the plant components, and report the findings of these investigations to the Council by 30 June 2001 and again by 30 June 2008.
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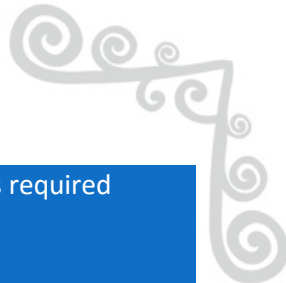
						instantaneous flow rate of 150l/s.	<p>Concentration of total nitrogen shall not exceed 40g per m³ as determined from a 24 hour flow balanced composite sample.</p> <p>Concentration of Faecal Coliforms and Enterococci shall not exceed a daily median of 200 MPN/100 ml and 100 MPN/100 ml respectively.</p> <p>pH shall be between 6 and 9 pH units.</p>	
<i>Waitomo Caves Holdings Limited (discharge into the Waitomo Stream)</i>	31 st of May 2000	15 th of April 2015	-	-	Rock gallery	Not exceed 97 cubic metres per day	<p>Discharge shall not result in the temperature of the Waitomo Stream exceeding 25 degrees Celsius after reasonable mixing.</p> <p>Discharge shall not result in the pH of the Waitomo Stream exceeding 9 pH units</p>	






							<p>after reasonable mixing.</p> <p>There shall be no conspicuous oil, grease, scums or foams, or floatable materials present in the Waitomo Stream after reasonable mixing.</p> <p>Discharge shall not result in any non-degradable material entering the Waitomo Stream.</p> <p>Ammoniacal nitrogen- 10g per m³;</p> <p>Biochemical oxygen demand- 30g per m³;</p> <p>Suspended solids- 100g per m³.</p>	
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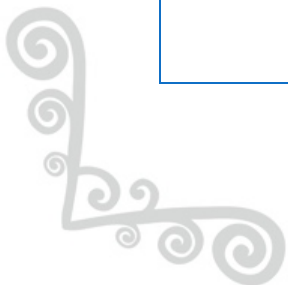


WWTP	Consent approval	Consent expiry	Secondary treatment	Tertiary treatment	Diffusion Method	Volume (quantity of discharge consented)	Expected discharge quality (consented)	Upgrades required
<i>Hamilton Wastewater Treatment Plant</i>	18 th of September 2007	18 th September 2027	Aeration basin and clarifiers	UV	Multi-port diffuser	Not exceed 224,000 cubic metres per day	<p>cBOD₅ concentration over each month no more than 8 exceedances over 10g/m³, and; over each quarter no more than 3 exceedances over 50 g/m³.</p> <p>cBOD₅ mass load over each calendar month, no more than 8 exceedances over 750 kg/day, and; Over each quarter no more than 3 exceedances over 2400 kg/day.</p> <p>Suspended solids concentration over each calendar month, no more than 8 exceedances over 15 g/m³, and; over each quarter no more than 3 exceedances over 100 g/m³.</p>	





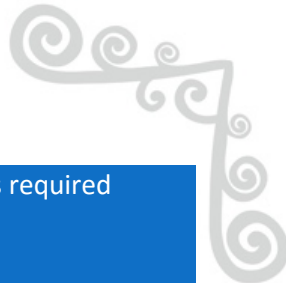
							<p>Suspended solids mass load over each calendar month, no more than 8 exceedances over 700 kg/day, and over each quarter no more than 3 exceedances over 2400 kg/day.</p> <p>Total nitrogen summer mass load over each calendar month from December-to-May inclusive, no more than 8 exceedances over 450 kg/day.</p> <p>Total nitrogen winter mass load over each 26 week period from June-to-November inclusive, no more than 13 exceedances over 1500 kg/day.</p> <p>E. coli routine over each calendar month, no more than 8 exceedances over 126 cfu/100ml: and over each quarter no more</p>	
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							<p>than 3 exceedances over 2000 cfu/100ml.</p> <p>E. coli diurnal over each 24 hour period no more than 12 exceedances over 2000 cfu/100ml.</p> <p>Total Phosphorus Summer mass load over each calendar month from December to May inclusive, no more than 8 exceedances over 100 kg/day.</p> <p>Total Phosphorus Winter mass load over each 26 week period from June to November inclusive, no more than 13 exceedances over 700 kg/day.</p>	
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WWTP	Consent approval	Consent expiry	Secondary treatment	Tertiary treatment	Diffusion Method	Volume (quantity of discharge consented)	Expected discharge quality (consented)	Upgrades required
<i>Te Awamutu Wastewater Treatment Plant (discharge into Mangapiko Stream)</i>	3 rd of November 2000	31 st of October 2015	BRN	UV	Rock filter	Not exceed the combined total of 10 000 cubic metres	<p>Concentration of ammoniacal nitrogen shall not exceed 5g per m³ in more than 10% of samples taken over any one year period, maximum concentration of the 10% of samples exceeding this value being 9g per m³.</p> <p>Carbonaceous biochemical oxygen demand shall not exceed 10g per m³ in more than 10% of samples taken over any one year period, with the maximum concentration of the 10% of samples exceeding this value being 20g per m³ metre.</p>	



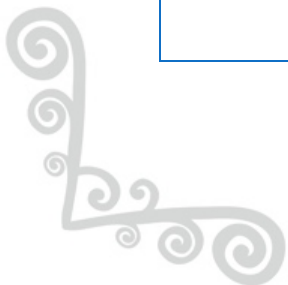


							<p>Suspended solids concentration shall not exceed 30g per m³ in more than 10% of samples taken over any one year period, with the maximum concentration of the 10% of samples exceeding this value being 50g per m³.</p> <p>Mean total nitrogen load over any one year period shall not exceed 58kg per day.</p> <p>Mean total phosphorus load to the stream over any one year period shall not exceed 38kg per day.</p> <p>Concentration of faecal coliforms shall not exceed 400 cfu /100 millilitres in more than 10% of the samples taken over any one year period, with the maximum concentration of the</p>	
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							<p>10% of samples exceeding this value being 4000 cuf/100 millilitres.</p> <p>From 1 October 2006, the mean total phosphorus load over any one year period shall not exceed 26 kilograms per day.</p> <p>pH of the discharge shall be maintained between 6 and 8 pH units.</p>	
<i>Cambridge Wastewater Treatment Plant</i>	13 th of May 1997	1 st of December 2016	Aeration lagoon	Rapid infiltration	Rapid infiltration	7,200 cubic metres of treated sewage effluent	<p>The five day biochemical oxygen demand shall not exceed 20g per m³ for more than 10% of the samples taken in one year and no samples shall exceed 50g per m³.</p> <p>Concentration of suspended solids shall not exceed 20g per m³ for more than 10% of the samples taken in</p>	





							<p>one year and no samples shall exceed 50g per m³.</p> <p>Faecal coliform median of five samples in 30 days shall not exceed 1000 10,000 faecal coliform units per 100 millilitres.</p> <p>Concentration of dissolved reactive phosphorus shall not exceed 10g per m³ for more than 10% of the samples taken in one year and no samples shall exceed 20g per m³.</p> <p>Concentration of dissolved inorganic nitrogen shall not exceed 10g per m³ for more than 10% of the samples taken in one year and no samples shall exceed 20g per m³.</p>	
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<i>Te Kowhai Sewage Treatment Plant (discharge to land)</i>	2 nd September 2008	5 th September 2018	Recirculating sand contactor	Recirculating tank with a screened pump vault	Gravity fed to 5 soakage pits backfilled with drainage metals	Not exceeding 12 cubic metres per day	<p>Not more than one sample in the preceding ten samples taken as required by condition 11 shall exceed 15 grams per cubic metre Biological Oxygen Demand.</p> <p>Not more than one sample in the preceding ten samples taken as required by condition 11 of this consent shall exceed 15 grams per cubic metre Total Suspended Solids.</p> <p>Not more than one sample in each preceding ten samples required by condition 11 of this consent shall exceed 40 grams per cubic metre Nitrate Nitrogen.</p>	
<i>Taupo Urban WWTP –</i>	30 th August 1994	31 st December 2015	Trickling Filters and Clarifiers	-	-	Discharge of up to 9000 cubic metres	The Biochemical Oxygen Demand of the treated waste water	



Emergency Discharge only						of secondary treated municipal waste water per year from the Taupo Pollution Control Plant, into the Waikato River during times of emergency	discharged shall not exceed a concentration of 100 grams per cubic metre at all times.	
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