1.	***Condition Schedule APP-2005011178.01 and APP-2018201909.00 – Eketāhuna Wastewater Treatment Plant General Conditions Applying to all Permits***	
TDC mark up on HRC conditions	**Applicant Comment**	**Alternative conditions from TDC**
Descriptive Specification G1. The activity authorised by these permits shall be undertaken in general accordance with the concepts, parameters, drawings, specifications, statement of intent, proposed mitigation measures and other information supplied in the application received on 1 April 2015 and supplementary documents received: a. On 11 December 2015, being a response to the s92 further information request of June 2015; b. On 27 February 2017, being a response to the s92 further information request of November 2016; and c. On 29 June 2018, being a new application (APP-2018201909.00) for the construction of a wetland and associated structures; and d. On 21 September 2018, via email, being a response to the section s92 further information request relating to APP-2018201909.00. Where the application is inconsistent with the requirements of the conditions, the conditions will prevail.		
G2. The wastewater discharge authorised by these permits shall be limited to: a. A maximum 12 month rolling median daily (midnight to midnight) discharge of 640 cubic metres; b. A 95th percentile daily flow of **[Applicant to indicate]** m^3/day, at approximate map reference BN35:280-977.[1]		
Environmental Standard G3. Within three months of commencement of these permits the Consent Holder shall prepare a plan detailing the final plant structured optimisation programme (SOP) for the Eketāhuna Treatment Plant and submit it to the Manawatu-Wanganui Regional Council's Regulatory Manager. The optimisation programme shall be completed by 1 July 2019. The SOP shall specify a suitably qualified operations technician who will implement the structured optimisation programme. The SOP plan shall describe the measures and steps required to optimise the treatment plant components so that the treatment plant is able to meet the conditions of this permit and shall specify a stepwise optimisation process of the Chemical dosing system, lamella clarifier operation, micro-filter operation and UV disinfection, which shall be implemented as part of the optimisation programme.	HRC G3 not applicable here as cannot optimise something that is not built yet. Performance testing is included. Replaced with Condition put forward based on evidence of Mr Crawford from original hearing	G3. The Consent Holder shall finalise the details of the Treatment Plant, and the treatment process to be used to treat wastewater so it will meet all the conditions of Permit xxxx. The Permit Holder shall prepare an RFP to call for a design for the Treatment Plant within 2 months of the grant of these permits. As a minimum the RFP shall specify the minimum effluent standards to be achieved, and detail requirements for monitoring influent flows and characteristics. As a requirement, the RFP shall specify that final design of the process improvements necessary to meet the effluent standards and a procurement strategy shall be completed within 13 months of grant of these permits. The Permit holder shall ensure that a contract is awarded for the design and construction of upgrades to the WWTP within four months of release of the RFP. The contract shall include milestones details to ensure all upgrades are installed at the plant no later than 12 months from award of construction contract. No later than 11 months following award of the construction contract the Permit Holder shall forward details of a plan for the Commissioning phase of the upgrades and details of performance testing to be undertaken. Performance testing, including making seasonal adjustments, shall be undertaken in parallel with the receiving water investigations required by Condition xx.

[1] Approximate discharge location following construction of Wetland

		Advice Note: The milestones for design are subject to negotiation with a contractor to be awarded the tender for the finalised design of WWTP. The dates specified above recognise major milestones and will be subject to additional milestones. Advice Note: This condition does not replace condition xx which requires a report to be prepared looking in to xxxx. The expectation would be that data collected during the design phase would be able to be used in the process of xx condition
WWTP Operations and Management Plan G4. **Within six months of** commencement of ~~these permits~~the treatment plant upgrades being constructed the consent holder shall prepare, and forward to Manawatu-Wanganui Regional Council's Regulatory Manager, an Operation and Management Plan (OMP). The OMP shall include but not be limited to: a. A description of the entire treatment system facility including a description of each of the respective system components, b. Plans of the treatment facility, c. A description of routine inspection and maintenance procedures to be undertaken with respect to the treatment plant and discharge components including dates and times when inspections and maintenance is to be undertaken, ~~d. Records of the commissioning and optimisation programme (in accordance with **condition G3**),~~ e. Procedures for recording routine maintenance and all repairs that are undertaken f. A description of monitoring, including cultural monitoring, methodology, locations and frequency, and record keeping of that monitoring, including a map showing details of monitoring locations, g. Details of the personnel or organisations responsible for undertaking monitoring or who should be present during monitoring (such as iwi), including their contact details h. Procedures for reporting compliance purposes, including the dates when particular reports are to be completed, when they are to be provided to other parties and who those parties are i. A description of procedures for reporting non-compliances to the Manawatu-Wanganui Regional Council, j. Procedures for reviewing and updating the Operations and Management Plan, k. An Odour Operation and Management Plan (OOMP) prepared in accordance with **condition A1**. l. Procedures and actions to be taken when monitored parameters exceed acceptable levels. This includes actions to be taken when DO levels reduce below those specified in **condition A6** of the discharge to air permit, and when water level alarms specified in **condition G18** are triggered; and	Agree O&M Plan, and one offered up in original application, but suggest would be more useful post upgrades and should include reference to the wetland plan, could be an appendix.	
G5. Any updates to the Plan shall be forwarded to Manawatu-Wanganui Regional Council within two months of their completion.		
G6. The OMP required by condition G4 shall be certified in writing by the Manawatu-Wanganui Regional Council's Regulatory Manager or his agent acting in a technical certification capacity.		

	ADVICE NOTE: The Manawatu-Whanganui Regional Council will consider the OMP and either certify that the OMP is in accordance with Condition G4 and the other conditions of this and the associated permits, or advise the Consent Holder that the OMP does not meet the conditions. Technical certification is limited to those matters relating to how the applicant intends to comply with the conditions of consent.		
G7.	The consent holder shall undertake all activities authorised by these permits in accordance with the certified OMP.		
G8.	The consent holder shall ensure that a copy of the OMP, including any amendments, is kept onsite. This copy shall be updated within 5 working days of any amendments being made to the design, operation or management of the treatment system. Any updates to the Plan shall be forwarded to the Manawatu-Wanganui Regional Council within two weeks of an amendment.		
G9.	The Consent holder shall maintain a register recording all updates made to the OMP, including details of the changes made, date the change was made and who authorised the change. The register shall be made available to Manawatu-Wanganui Regional Council's Regulatory Manager on request.		
G10.	Any changes to the OMP that relate to clauses (c), (f), ~~(g)~~ or (h) of Condition G4 shall only be undertaken if the amended are certified by Manawatu-Wanganui Regional Council's Regulatory Manager in accordance with **Condition G6**.	Issue with (g) as any change in personnel will need HRC certification. That will provide a very inefficient system with regular certification of personnel changes.	
G11.	Within three months of commencement of these permits, the permit holder shall install and maintain signage advising river users that treated wastewater is being discharged at the location. **ADVICE NOTE:** Signage shall also be installed and maintained ~~at any point~~ where there is public access within 500 metres downstream of the discharge location advising that treated wastewater is being discharged within 500m upstream.	Suggest delete "at any point" as it is uncertain.	
G12.	**Within five years** of commencement of these permits, the permit holder shall have completed an investigation into alternative methods of treatment and discharge, including land based disposal. The alternative disposal feasibility study shall inform the permit holder's decision on the best practicable option for treatment and disposal from the Eketāhuna Wastewater Treatment Plant. The findings of the feasibility study shall be provided to the Tararua District Wastewater Forum (TDWF), and to the Regulatory Manager of the Manawatu-Wanganui Regional Council within two months of its completion.	Proposing within six years to allow for more monitoring of proposed system.	Within six years of commencement of these permits, the permit holder shall have completed an investigation into alternative methods of treatment and discharge, including land based re-use, treatment or disposal. The alternative disposal feasibility study shall inform the permit holder's decision on the best practicable option for treatment and disposal from the Eketāhuna Wastewater Treatment Plant. The findings of the feasibility study shall be provided to the Tararua District Wastewater Forum (TDWF), and to the Regulatory Manager of the Manawatu-Wanganui Regional Council within two months of its completion.
G13.	**Within three years** of commencement of the discharge of treated wastewater from the wetland to the Makakahi River permits, the permit holder shall have completed a recreational user's investigation of the Makakahi River 500m upstream and 500m downstream of the discharge point and mixing zone.		
G14.	The permit holder shall inspect the Sewage Treatment Plant at least once weekly for the term of these permits for the purpose of attending to all operational requirements, monitoring and maintenance. A record of these visits and any maintenance undertaken shall be kept in a log book, available to the Manawatu-Wanganui Regional Council's Consents Monitoring Officer upon request.		
~~G15.~~	~~**By 1 July 2020,** the Consent Holder shall have completed a study identifying the measures to be undertaken to reduce infiltration and inundation (I&I) entering the wastewater network. The results of this study shall be included in the Annual Environmental Report of that year (2020).~~	New condition proposed, based on evidence of Mr King recognising that TDC already have a work programme regarding I&I in place.	By 31 October in years 2021, 2023 and 2025 the Consent Holder shall forward details of inflow and infiltration investigations undertaken in the previous financial years, and details of any forward works programme for repairs or upgrades to the Council network.

		Advice Note: Forward works programmes assessment would be expected to be in general accordance with the principals of *Infliltration and Inflow Control Manual. Water New Zealand, 2015 (or relevant updates)*
~~G16. The infiltration and inundation (I&I) study required by **condition** Error! Reference source not found. shall include a remedial works programme and timescale for achievement of reduction of infiltration and inundation into the wastewater system.~~		
G17. **By 31 October** of each year, the Consent Holder shall provide the Manawatu-Wanganui Regional Council's Consents Monitoring Team and the Tararua District Wastewater Forum (TDWF), an Annual Environmental Report for the 12 month period ending 30 June. The monitoring report shall include but shall not be limited to: a) A summary of analyses and records collected in accordance with conditions of these permits, including all sampling conditions; b) A summary of the daily inflow and outflow volumes for the oxidation ponds including a comment on the relative volumes; c) An assessment of the analyses and records; d) An assessment of the effects on both groundwater and surface water including an assessment of those water quality analyses under **Conditions DSW10, DSW16, 0 and 0** and against any relevant targets in Schedule E of the One Plan. e) A report on the effects of the discharge on the benthic biota of the Makakahi River as required by **condition DSW17 and DSW21** of the discharge to water permit; f) A comment on the extent to which conditions of these permits have been complied with; g) A record of any complaints that are received relating to the operation of the Oxidation ponds; h) Report on trends as a result of permit monitoring. **ADVICE NOTE**: For remedial actions to be undertaken an overview on timing of actions, including reference to appropriate Asset Management Plans would be required		
G18. **Within 3 months** of these permits commencing, the Permit Holder shall install a pond level sensor alarm on Pond 2. The sensor shall provide a continuous measure of pond level to the Supervisory Control and Data Acquisition (SCADA) system. The sensor shall provide the following alarm functions: a. Alert level at 500mm below overflow, b. High level at 300mm below overflow, and c. High-high level (Overflow imminent) at 100mm below overflow. **ADVICE NOTE**: In relation to the sensor, the measurement and poling rates need not be high.		
Tararua District Wastewater Forum (TDWF) G19. The permit holder shall initiate the inaugural meeting of the Tararua District Wastewater Forum (TDWF) on or before 31 October in the year either or both of the Pahiatua (APP-1993001253.02) or Eketāhuna application (APP-2005011178.01) commence. **ADVICE NOTE:** The inaugural TDWF meeting shall be initiated following commencement of the earliest application to be authorised.		

G20.	The permit holder shall secure the services of an independent facilitator who is responsible for facilitating discussions any time the forum meets.		
G21.	The permit holder shall, for all TDWF's, provide the venue and administrative support, including but not limited to recording attendees recording and circulating notes and outcomes discussed at the forum.		
G22.	Two weeks prior to hosting any meeting of the TDWF, the permit holder shall by way of formal correspondence issue invitations to the following parties: a) Kahungunu ki Tamaki nui-a-rua Trust and Rangitane o Tamaki nui a Rua Inc, b) Water & Environmental Care Assn. Inc, c) Water Protection Society Inc, d) MIdCentral District Health Board, e) Manawatu Estuary Trust, f) Wellington Fish and Game , g) John Bent, Christina Paton, Te Roopu Taiao o Ngati Whakatere, Corny and Charlotte Andrews, h) A representative of Horizons Regional Council as the Regulatory Authority, i) A representative of the Tararua District Council as the permit holder, and j) Manawatu River Accord participants.		
G23.	In addition to **condition G19** above, the permit holder shall place in the Manawatu Standard and the Bush Telegraph a public notice advising of the date, time, location and purpose of the TDWF meeting.		
G24.	The permit holder shall ensure that at least one TDWF meeting ~~shall~~ occurs annually. Meeting frequency can be amended if participants in the TDWF agree. ~~**ADVICE NOTE**: Meeting frequency can be amended if participants in the TDWF agree.~~	Suggest insert "meeting" after TDWF. Also suggest the Advice note forms a second sentence to the condition.	
Review G25.	**Twelve months** prior to the expiry of these consents, the permit holder shall ~~commission~~ invite ~~a Cultural Values Assessment from~~ Kahungunu ki Tamaki nui-a-rua Trust[2] and Rangitāne o Tamaki nui a Rua Inc to prepare a Cultural Values Assessment.	Suggest "invite" in place of "commission" as otherwise an unlawful obligation on a third party. Rangitāne have not provided a CVA to date and neither iwi may wish to in the future.	
G26.	The Manawatu-Wanganui Regional Council may, pursuant to section 128 of the Act, initiate a review of any conditions of these permits in the month of July 2020. Any review shall be for the purpose of reviewing the effectiveness of the conditions in avoiding, or mitigating any adverse effects on the environment, which may arise as a result of the exercise of this permit. The review of conditions shall be for the purpose of: a) The modification of the monitoring programme, including reviewing the frequency of the monitoring or the determinants required; b) Requiring compliance with any relevant rule of an operative Regional Plan; c) The amendment, deletion or addition of new conditions as necessary to avoid, remedy or mitigate any adverse effect on the environment but not limited to conditions to mitigate adverse effects attributed to any breach of any condition; d) Addressing any adverse effects on the environment which may arise that are appropriately addressed at a later stage; e) Requiring the permit holder to adopt the best practicable option to remove or reduce any unforeseen adverse effects on the environment;	Delete (f) as it is a repeat of (e). The 2020 date is in practice meaningless, as the system will only have just been established.	

[2] In accordance with the Application pg. 30 (The application only specified Kahungunu, but for completeness Rangitāne have been included as well)

~~f) Requiring the permit holder to adopt the best practicable option to remove or reduce any adverse effects on the environment;~~ ~~g)~~f) Assessing the performance of the wastewater treatment plant in terms of the quality of the effluent being discharged to the receiving environment; ~~h)~~g) Reviewing the effectiveness of the standards in the conditions of this permit in addressing the adverse effects on the Makakahi River; ~~i)~~h) The review may result in any of the following outcomes to ensure that any adverse effects are appropriately mitigated: i. The deletion or amendment of any conditions of the permits; ii. The addition of new conditions of consent including conditions imposing more stringent discharge quality standards or more stringent receiving water standards; - iii. The addition of new conditions requiring the permit holder to adopt the best practicable option; - iv. Achieving an outcome that arises from a review that is initiated by the equivalent **ADVICE NOTE:** Any review exercised under this condition may result in the wastewater discharge volume and / or rate being reduced and / or restricted, or further restrictions being placed on the discharge volume and / or rate during low flow conditions.		
Duration G27. Discharge to water permit **ATH-2013010987.01,** Discharge to air permit **ATH-2013011395.01,** Water permit (Diversion) **ATH-2018202079.00**, Land use consents **ATH-2018202078.00** and **ATH-2018202080.00** and Discharge to land permits **ATH-2015200247.00** and **ATH-2018202081.00** shall expire on [date], seven years after the commencement of these permits~~1 July 2025~~.		

2.	*Condition Schedule ATH-2013010987.01 – Eketāhuna Wastewater Treatment Plant – Discharge to Water Permit*		
HRC		**Applicant Comment**	
	Definitions: $cBOD_5$ Carbonaceous five days Biochemical Oxygen Demand $ScBOD_5$ Soluble Carbonaceous five days Biochemical Oxygen Demand NH_4-N Ammoniacal Nitrogen NO_xN Total oxidised nitrogen TN Total Nitrogen TSS Total Suspended Solids DRP Dissolved Reactive Phosphorous *E.coli* *Escherishia coli* g/m^3 Grams per cubic metre		
Environmental Standards DSW1. **Until 1 ~~July 2020~~October 2021,** the treated wastewater shall meet the following standards: a. The concentration of Ammonical-nitrogen (NH_4-N) shall not exceed 4 g/m^3 in more than 8 out of 12 consecutive samples, and no more than 11 g/m^3 in more than 2 out of 12 consecutive samples; b. The concentration of soluble carbonaceous BOD5 (sCBOD5) shall not exceed 3 g/m^3 in more than 8 out of 12 consecutive samples; and no more than 6 g/ m^3 in more than 2 out of 12 consecutive samples c. The concentration of total suspended solids shall not exceed 21 g/m^3 in more than 8 out of 12 consecutive samples, and no more than 27 g/m^3 in more than 2 out of 12 consecutive samples. **ADVICE NOTE**: Compliance shall be based on grab samples taken immediately downstream of the UV treatment plant.	Dates adjusted to recognise construction timeframe	Until 1 October 2021
DSW2. **Until 1 ~~July 2020~~October 2021,** the treated wastewater shall meet the following standards in the Makakahi River as measured at "Makakahi at Hamua" flow recording station is at or below the 20th flow exceedance percentile flow: a. The concentration of *E.coli* shall not exceed 490 MPN/100ml in more than 8 out of 12 samples, and no more than 4,700 MPN/100ml in more than 2 out of 12 consecutive samples. b. The concentration of DRP shall not exceed 0.5 g/m^3 in more than 8 out of 12 samples, and no more than 2 g/m^3 in more than 2 out of 12 consecutive samples.		Until 1 October 2021
DSW3. ~~By~~ From **1 ~~July 2020~~October 2021,** the treated wastewater shall meet the following standards: a. The concentration of Ammonical-nitrogen (NH_4-N) shall not exceed ~~4~~ 10 g/m^3 in more than 8 out of 12 consecutive samples, and no more than ~~11~~ 15 g/m^3 in more than 2 out of 12 consecutive samples; b. The concentration of soluble carbonaceous BOD_5 ($sCBOD_5$) shall not exceed ~~3~~ 5 g/ m^3 in more than 8 out of 12 consecutive samples; and no more than ~~6~~ 8 g/m^3 in more than 2 out of 12 consecutive samples c. The concentration of total suspended solids shall not exceed 15 g/m^3 in more than 8 out of 12 consecutive samples, and no more than 30 g/m^3 in more than 2 out of 12 consecutive samples.		By 1 October 2021

	ADVICE NOTE: Compliance shall be based on grab samples taken immediately ~~downstream of the UV treatment plant~~prior to the wetland outlet structure.		
DSW4.	~~**By**~~ **From 1 July 2020,** the treated wastewater shall meet the following standards in the Makakahi River as measured at "Makakahi at Hamua" flow recording station is at or below the 20th flow exceedance percentile flow: a. The concentration of *E.coli* shall not exceed ~~50~~ 260 MPN/100ml in more than 8 out of 12 samples, and no more than ~~200~~ 1000 MPN/100ml in more than 2 out of 12 consecutive samples. b. The concentration of DRP shall not exceed 0.5 g/m^3 in more than 8 out of 12 samples, and no more than ~~0.7~~1.0 g/m^3 in more than 2 out of 12 consecutive samples. **ADVICE NOTE:** Compliance with condition DSW4 will be based on the flow at the "Makakahi at Hamua" flow recording station is less than 8,293 l/s. Compliance for DRP shall be based on grab samples taken immediately prior to the wetland outlet structure and for E.coli immediately downstream of the UV treatment plant.		By 1 October 2021
DSW5.	**By 1 ~~July 2020~~August 2021,** all wastewater discharge into the Makakahi River shall pass through the primary screening unit, the oxidation ponds, be treated by the UV disinfection unit, and pass through the constructed wetland.		
DSW6.	The UV disinfection unit shall be equipped with a UV sensor to monitor UV transmission or intensity through the wastewater during operation.		
DSW7.	The UV sensor shall be monitored continuously, with an alarm notifying the consent holding is the applied UV intensity is operating ineffectively.		
	Receiving Water Quality	As discussed at original hearing	
DSW8.	The treated wastewater discharge shall not cause any of the following in the Makakahi River at the river flows outlined in Table 1, and after the reasonable mixing distance of 100 metres: a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or b) bacterial and / or fungal slime growths visible to the naked eye as plumose growths or mats; or c) any emission or objectionable odour; or ~~d) render the receiving water unsuitable for consumption by farm animals; or~~ ~~e) a more than minor adverse effect on aquatic life; or~~ ~~f)~~d) a change in horizontal visibility, defined as the horizontal sighting range of a black disc, by more than 20%; or ~~g)~~e) the DO concentration to fall below 80 % saturation; or ~~h)~~f) the ammoniacal nitrogen (NH_4-N) concentration to exceed 2.1 grams per cubic metre at any time, or to exceed 0.4 grams per cubic metre on an rolling annual average; or ~~i)~~g) the average POM concentration to exceed 5 g/m^3 at flows below median; or ~~j)~~h) the *Chlorophyll a*. to exceed 120 mg/m^2 on more than 8% of sampling occasions, on the basis of monthly measurements taken over a period of at least 36 months; or		

~~k)~~i) the Chlorophyll a level to move between bands as prescribed by the Freshwater NPS 2017, on the basis of monthly measurements taken over a period of at least 36 months; or

~~l)~~j) the cover of filamentous mats greater than 2 cm long to exceed 30% or cover of mats greater than 3mm thick to exceed 60%; or

~~m)~~k) a reduction in QMCI of greater than 20%; or

~~n) the concentration of toxicants to exceed the trigger values for freshwater for the protection of 99% of species (ANZECC 2000); or~~

~~o)~~l) the soluble carbonaceous BOD_5 concentration due to dissolved organic compounds (that is, material passing through a GF/C filter) to exceed 1.5 g/m^3 at flows below the 20th FEP.

Table 1

Condition	Contaminant or Effect (abbreviated, for reference only)	River Flows	Zone of Reasonable Mixing downstream
(a)	Films, scums, foams	All	100 metres
(b)	Bacterial/fungal slime growths	All	100 metres
(c)	Objectionable odour	All	100 metres
(e)	Unsuitable for farm animals	All	100 metres
(f)	Effects on Aquatic Life	All	100 metres
(g)	Horizontal visibility	All	100 metres
(h)	Dissolved Oxygen	All	100 metres
(i)	Ammonia-nitrogen	All	100 metres
(j)	Particulate organic matter	At or below the median	100 metres
(k ,l)	Periphyton biomass	All	100 metres
(m)	Periphyton cover	All	100 metres
(n)	QMCI	All	100 metres
(o)	Toxicants	All	100 metres
(p)	Soluble carbonaceous BOD_5	At or below the 20th FEP	100 metres

ADVICE NOTE: The River flows in Table 1 are those measured at the “Makakahi at Hamua” water level recording station and the 20th flow exceedance percentile at the station is 8,293 l/s.

~~DSW9. If the consent holder is unable to comply with any of the limits in **condition DSW8** due to the upstream exceedances, the consent holder shall use a Wilcoxon Signed Rank test to determine if there are any significant increases or decreases that are having adverse effects. If it is determined that there are significant adverse effects occurring, it will be considered as a non-compliance with the respective limit.~~

~~**ADVICE NOTE:** To perform the statistical test, analysis needs to be against a minimum of 12 upstream and downstream paired results from the monthly sampling.~~

Compliance with DSW 8 shall be assessed as follows

a. If clause 8.e (change in horizontal visibility of more than 20% between upstream and downstream of the discharge) is exceeded, the permit Holder shall:
   i) immediately repeat the horizontal visibility measurement upstream and downstream of the discharge; and

		ii) If a greater than 20% reduction in horizontal visibility is confirmed by the second measurement, the consent holder shall assess whether the discharge is the cause for the reduction in horizontal visibility, based on the results of water quality analyses undertaken the same day under Condition 17 of this Permit, and any additional measurements, other observations or photographs. b. If the consent holder is unable to comply with the limits in Condition 8g (ammoniacal nitrogen), 8h (Particulate Organic Matter) or 8l ($ScBOD_5$) due to upstream exceedances, the permit holder shall use a Wilcoxon Signed Rank test to determine if there are any statistically significant increases or decreases between upstream and downstream. c. If it is determined that there are significant increases or decreases in accordance with the Wilcoxon Signed Rank test (p=0.05 or lower), the Permit Holder shall undertake an investigation into the effects of the discharge from the Pahiatua WWTP compared with upstream to investigate the possible cause of the exceedance. d. Within one week of the result being received, notify the Manawatu-Wanganui Regional Council's Environmental Regulation Manager of the exceedance, with a written comment outlining mitigation measures taken and if required, further proposed measures to remedy the problem. The written statement shall include but is not limited to mitigation

		proposed, and a timeline for proposed remediation; and e. The findings and if required, further proposed measures to remedy the problem, shall be reported in the annual report required by condition [2XX] of the general conditions f. If the limits in clause 8j. are exceeded downstream of the discharge, the Permit Holder shall assess whether a more than 15 point increase in the percentage cover by filamentous algae over 2 cm long or mat over 0.3 cm thick has occurred between upstream and downstream of the discharge on that sampling occasion. The assessment shall be conducted on the basis of an equivalence test using no less than 20 individual visual observations collected upstream and downstream. g. Compliance with the limit in clause 8k shall be determined using equivalence testing at the 20% interval h. Compliance with clause 8i (periphyton biomass) shall be assessed on the basis of monthly measurements collected under condition 21. Any missing monthly measurements due to high flow conditions (defined as being defined as 26.7 m^3/s in the Mangatainoka River at Pahiatua Town Bridge) on the day of monitoring shall be assumed to have a biomass of less than 120 mg/m^2. i. If it is determined that there are significant effects occurring, it will be considered as a non-compliance with the respective limit. **ADVICE NOTE:** A statistically significant difference is defined as a P value equal to or less than 0.05.

Effluent Monitoring ~~DSW10.~~DSW9. To enable the sampling of the treated wastewater, easy and safe access to a sampling port(s) shall be provided by the Consent Holder and maintained as close as is practicable to those sampling locations specified in **condition DSW16**.		
~~DSW11.~~DSW10. The consent holder shall take monthly grab samples of the wastewater immediately prior to ~~upstream of~~ the wetland discharge structure and downstream of the UV treatment unit and the samples shall be analysed for the constituents and at the frequencies listed in Table 2 to assess compliance with Condition ~~DSW8~~ DSW8 and ~~DSW9~~ DSW1 of these consents.	Change to downstream of treatment wetland, with exception of e.coli	
~~DSW12.~~DSW11. **Within three months** of commencement of these consents**,** the consent holder shall have a flow meter installed, by an accredited installer. The installer must ensure the flow meters are located on the inflow and outflow line. The flow meters must have a pulse counter output traceably calibrated to +/- 5 % or better. The flow meter shall be capable of providing daily inflow and discharge volumes use as well as a pulse counter output. The flow meter shall be positioned to measure the entire volume of treated sewage effluent discharge into the surface water of the Makakahi River discharged under authorisation of these consents.		
~~DSW13.~~DSW12. The consent holder shall ensure the flow meter required by Condition DSW11, is installed by an Irrigation New Zealand Blue Tick accredited installer and be installed in accordance with the standards set out in the Ministry for the Environment Guidelines *Resource Management (Measurement and Reporting of Water Takes) Regulations 2010*.		
~~DSW14.~~DSW13. **Within three months of** commencement of these consents, the consent holder shall install and maintain, in a fully operational condition, a GPRS data logger / telemetry unit compatible with the Manawatu-Wanganui Regional Council's Telemetry system on the discharge line traceable to +/- 5 % or better. **ADVICE NOTE:** This unit, which is attached to the pulse counter output, will be monitored by the Manawatu-Wanganui Regional Council to ensure compliance with the resource consent conditions.		
~~DSW15.~~DSW14. Where telemetry equipment fails for reasons other than fair wear and tear, replacement or repair will be at the consent holder's expense and replacement will be required within seven days.		
~~DSW16.~~DSW15. With the exception of network power failure or network maintenance the consent holder shall ensure that power supply is maintained at the site at all times. **ADVICE NOTE:** If power supply is lost at the site due to consent holder negligence or abuse and telemetry units require recalibration by Manawatu-Wanganui Regional Council staff the costs associated will be recovered from the consent holder.		
River Monitoring ~~DSW17.~~DSW16. The consent holder shall take samples from the Makakahi River at approximately T25:380-592; BN35:280-975 90 metres upstream (Site A) and at approximately T25:383-595; BN35:283-977 ~~100 metres~~ downstream (Site B) of the discharge point to the Makakahi River, ~~a sample of the discharge prior to entering the wetland and~~ a sample of the discharge at the Discharge Point as shown on **Plan APP-200511178.01 A**[3] attached to and forming part of these consent conditions. The samples shall be analysed for the constituents and at the frequency listed in Table 2 to assess compliance with Condition DSW8 of these consents.	Downstream monitoring point likely to be greater than 100m. Assume that the map provided in Mr Brown's evidence would be attached and the downstream monitoring point be	

[3] This will be updated depending on discharge location

Table 2: Effluent and River Monitoring | Constituent	Wastewater - Monthly	River - Monthly
$cBOD_5$	X	
$ScBOD_5$	X	X
Dissolved oxygen		X
NH4-N	X	X
Nitrite	X	X
Nitrate	X	X
TN	X	X
TSS	X	X
Turbidity		X
Horizontal visibility (black disc)		X
Particulate organic matter	X	X
DRP	X	X
Total Phosphorus	X	X
E.coli	X	X
pH		X
Conductivity		X
Temperature		X | **ADVICE NOTE:** pH, temperature, horizontal visibility and dissolved oxygen shall be measured on site, directly in the River. **ADVICE NOTE:** It is preferable that the downstream sample is collected before the upstream sample so that disturbed sediment does not impact the downstream sampling result.	confirmed utilising that.	
~~DSW18.~~DSW17. All wastewater and river water quality analysis shall be undertaken by an appropriate accredited laboratory. All methodologies adopted shall be appropriate for either wastewater or river water analyses respectively and the soluble $CBOD_5$ shall be GF/C filtered. The methodologies shall be determined in consultation with the Manawatu-Wanganui Regional Council's Regulatory Manager.		
~~DSW19.~~DSW18. The consent holder shall have an appropriately experienced and qualified freshwater ecologist undertake macroinvertebrate sampling in the Makakahi River at least once prior to the discharge point moving. The freshwater ecologist shall ensure that the physical characteristics (including but not limited to substrate, depth, velocity, shading) of the upstream and downstream sites are, as much as practicable, similar/adequately match. The macroinvertebrate assessment shall be undertaken following a period of at least three weeks without a significant flood event (defined as an instantaneous river flow exceeding three times the median flow, defined as 9.54 m^3/s in the Makakahi River at Hamua) and during a period of low flow (at least one week below ½ median flow in the Makakahi River at Hamua defined as 1.59 m^3/second).		
~~DSW20.~~DSW19. The locations of the assessments and sampling are shown on **Plan APP-200511178.01 A** ~~as Site A, and Site B and~~ as detailed below: a) the Makakahi River at a site located in a within the upstream reach identified on **Plan APP-200511178.01 A** (Reach A A); and b) The Makakahi River at a site located in a riffle within the downstream reach (Reach B) identified on **Plan APP-200511178.01 A** ~~a)~~ The exact location of monitoring sites shall be determined in consultation with the Manawatu-Wanganui Regional Council's Regulatory Manager to ensure, as much as practicable, that the upstream and downstream sites have comparable physical attributes (depth, velocity, shading and substrate size). ~~the~~		

~~Makakahi River at a site located in the first riffle within 200 metres upstream of the discharge point to the Makakahi River (Site A); and~~ ~~b)~~c) ~~The Makakahi River at a site located in the first riffle after 100 metres downstream of the discharge point to the Makakahi River (Site B); and.~~		
~~DSW21.~~DSW20. Macroinvertebrate sampling referred to in Condition DSW18 is to be undertaken **annually** between **January to March** inclusive. The macroinvertebrate sampling shall follow Protocols C3 (Hard-bottomed quantitative), P3 (full count with subsampling option) and QC3 (Quality control for full count with subsampling option) from the Ministry for the Environment's "protocols for sampling macroinvertebrates in wadeable streams" (Stark et al. 2001). This shall involve: a) collection of 5 replicate 0.1 m^2 Surber samples at random within a 20 m section of riffle habitat at each sampling site. b) full count of the macroinvertebrate taxa within each replicate sample to the taxonomic resolution level specified for use of the Macroinvertebrate Community Index (MCI). c) enumeration of the results as taxa richness, MCI, QMCI, %EPT taxa and %EPT individuals. ~~c)~~d) Analysis of the QMCI results using equivalence testing at the 20% interval		
~~DSW22.~~DSW21. The consent holder shall have an appropriately experienced and qualified freshwater ecologist undertake monthly assessments of the percentage cover, biomass, chlorophyll a, AFDW and community composition of periphyton, filamentous algae and cyanobacterial mats in riffle habitat, as close as possible to the sites selected under **Condition DSW18** above regardless of flows. The periphyton and algae assessment is to include: a) a visual assessment of the percentage cover of both filamentous algae and algal mats (to the nearest 5%) at 5 points across each of four transects encompassing riffle habitat and extending across the width of the river at each sampling site. The visual monitoring methods shall follow the protocols outlined in Appendix 2 of "A periphyton monitoring plan for the Manawatu-Wanganui Region" (Kilroy et al. 2008). Reported estimates shall include: i. percentage cover of visible stream or river bed by bacterial and/or fungal growths (sewage fungus) visible to the naked eye; ii. percentage cover of visible stream or river bed by filamentous algae more than 2 cm long; iii. percentage cover of visible stream or river bed by diatoms or cyanobacteria mats more than 0.3 cm thick; iv. percentage cover of visible stream or river bed by diatoms less than 0.3 cm thick; and v. percentage cover of visible stream or river bed that is clean. b) the collection of a periphyton sample at the same established monitoring sites and transects as defined in Condition DSW18 above, using method QM-1b from the Stream Periphyton Monitoring Manual (Biggs & Kilroy 2000). Analysis of periphyton samples shall follow the Biggs & Kilroy (2000) guidelines for *chlorophyll a* analysis.		
~~DSW23.~~DSW22. The consent holder shall advise the Manawatu-Wanganui Regional Council's Regulatory Manager if the absence of low flow conditions prevent the monitoring required by **Conditions DSW18, DSW20 and DSW21** within five days of a decision being made that the monitoring cannot be undertaken.		
Operational Restrictions ~~DSW24.~~DSW23. **Within three months** of commencement of these consents, the consent holder shall arrange safe access to sampling sites consistent with the requirements of **Conditions DSW16 and DSW18** of these consents. Such safe access		

shall be maintained at all times for the duration of these consents, with the exclusion of times when high flows in the River may render access hazardous.		
Post-Development Assurance ~~DSW25.~~DSW24. ~~At least once every five years, or earlier if there is an unexplained increase in flows, the Consent Holder must review records of wastewater flows received at the treatment plant to ensure there has been no unexplained increase in flows (based on a five year running average) that could adversely affect treatment plant performance. The results of the review must be included in the next annual monitoring report to the Regulatory Manager. In the event that the review shows that unexplained increased flows could result in adverse effects on treatment plant performance, the permit holder must investigate the reasons for the unexplained increased flows and put in place remedial works as necessary. In the event there is disagreement between the permit holder and consent authority in relation to the need for investigations and/or remedial works, the permit holder must commission an independent review by a suitably qualified expert acceptable to the consent authority.~~	No evidential basis provided for this condition. Applicant's position is that the I&I programme already undertaken by TDC is sufficient.	
~~DSW26.~~DSW25. The consent holder shall notify the Manawatu-Wanganui Regional Council's Environmental Protection Manager within two working days of any non-compliance occurring or when it becomes certain that a breach of consent conditions is about to occur. For conditions requiring compliance with a particular water quality standard, notification is required within two working days of receipt of the water quality analysis from the Laboratory.		
Monitoring Provision ~~DSW27.~~DSW26. The consent holder shall make results of monitoring undertaken required by **Conditions DSW16 and DSW18** of these consents available to the Manawatu-Wanganui Regional Council's Regulatory Manager on request, and data records for each three month period ending March, June, September and December shall be forwarded to Manawatu-Wanganui Regional Council's Regulatory Manager in a suitable electronic format, within 14 days after the end of each three monthly period.		
~~DSW28.~~DSW27. ~~At least six months prior to the assessment of water quality being required pursuant to condition DSW1 the permit holder shall engage an independent panel comprising three appropriately qualified and experienced scientists:~~ ~~a) one scientist nominated by the permit holder;~~ ~~b) one scientist nominated by Manawatu-Wanganui Regional Council; and~~ ~~c) one independent scientist (and, for these purposes, an independent scientist shall exclude any person who has presented evidence to the hearing of this permit).~~ ~~Should the engagement of any of the appointed scientists cease the party who nominated that scientist shall nominate a further appropriately qualified and experienced replacement.~~	Applicant's position is that this is not needed here given relative effects of discharge. Annual reporting is undertaken that will assess compliance etc. As outlined at original hearing.	
~~DSW29. The independent panel engaged pursuant to **Condition DSW28** shall, no later than 5 years following the upgrades are completed, undertake an assessment of the water quality, periphyton, and macroinvertebrate monitoring data collected during the monitoring periods.~~ ~~The assessments shall:~~ ~~a) examine the effects of the discharge on the Schedule B values identified in the One Plan for this reach of the Makakahi River;~~ ~~b) Consider any reports received from the Liaison Group;~~		

~~c) Consider the results of macroinvertebrate and periphyton monitoring undertaken in accordance with Conditions DSW19, DSW20, DSW21 and DSW22;~~ ~~d) Consider past and likely future compliance with Conditions DSW3 and DSW4.~~ ~~e) Provide recommendations on the monitoring frequency and monitoring parameters for the remainder of the permit;~~ ~~f) Provide recommendations on any changes required to the discharge regime, and effluent quality (including nutrient concentrations and loads discharged to the Makakahi River),so as to minimize adverse effects on the One Plan's Schedule B values for the Makakahi River.~~ ~~g)~~a) ~~The findings of the independent panel's assessment shall be submitted to the Regulatory Manager and the **TDWF** by **1 July 2022**.~~		
~~DSW30.~~DSW28. **By 31 July** each year commencing **31 July ~~2017~~ 2020** the consent holder shall prepare a report that summarises and assesses all of the monitoring information required under **Conditions DSW16, DSW18,** Error! Reference source not found. **and DSW21** of these consents. The provision of this report should be included in the Annual Environmental Report required by **condition G17** of the general conditions.		
~~DSW31.~~DSW29. The Report required by **condition DSW28** will be provided to the Manawatu-Wanganui Regional Council's Regulatory Manager by **31 October** of each year.		

3.	*Condition Schedule ATH-2015200247.00 and ATH-2018202081.00 – Eketāhuna Wastewater Treatment Plant Discharge to Land Permit – Pond and Wetland Seepage*	
HRC	**Applicant Comment**	
Environmental Standards ~~DLW1. **Within three months** of commencing this permit, the Consent Holder shall monitor, calculate and record the daily rate of leakage from the WWTP pond system to groundwater. This leakage rate shall be determined based on a water balance calculation incorporating monitored daily WWTP pond influent and effluent flows and daily climate data (rainfall and evaporation).~~	Very unlikely to be able to accurately determine daily seepage rates given accuracy measure of meters. Further, as likely constructed in mudstone bedrock unlikely for leaking to be occurring. Alternative is recommended	**Permeability Investigations** **Within six months** of commencement of this Permit the Consent Holder shall submit to the Manawatu-Wanganui Regional Council's Regulatory Manager a plan to investigate the rate of leakage of all the existing treatment ponds. The plan shall include, but not be limited to: a. A methodology for a water balance to be undertaken for each of the ponds. As a minimum inflows and outflows from the treatment system shall be recorded over a 12 month period, as shall local daily rainfall. Consideration to be given to measuring pond levels and measurement and recording of representative evaporation rates; or other suitable method to determine rate of leakage of each of the treatment ponds. b. Geotechnical investigations adjacent to the existing ponds c. The methodology proposed shall be peer reviewed by an independent IPENZ Chartered engineer.
~~DLW2. The Consent Holder shall provide daily Pond Seepage rate data, as monitored and calculated in accordance with consent condition 2 above, on a quarterly basis, in a format that is compatible with the Manawatu-Wanganui Regional Council data system.~~		Buy 1 July 2020 the Consent Holder shall submit a report to the Manawatu-Wanganui Regional Council's Regulatory Manager and Tararua Wastewater Forum detailing the findings of the permeability investigations. The report shall include but not be limited to: a. As assessment of calculated seepage rates and assessment of effects on groundwater; and b. A recommendation for ongoing monitoring if required.
~~DLW3. **By 1 July 2020,** all wastewater treatment ponds must have a lining with a permeability not exceeding 1 x10^{-9} m/s.~~	Not lining	
~~DLW4. Following completion of the wastewater pond lining as required by condition 0, the Consent Holder shall undertake six monthly monitoring of a sub-liner drainage/leakage detection system.~~		
DLW5. ~~**By 1 July 2020**~~**No later than 1 May 2021,** the wetland base shall be constructed such that the permeability ~~of the wetland shall~~does not exceed 1.4 x 10^{-7} m/s. The permeability of the constructed layer shall be confirmed by a suitably qualified engineer.		
~~DLW6. **By 1 July 2020,** the nitrate concentration as measured at the wetland outlet shall be reduced by 50% compared to the inflow to the wetland.~~		

~~DLW7. **By 1 July 2020,** the Consent Holder shall ensure that other contaminants in the discharge as listed in **condition 0** and as measured at the wetland outlet shall not be exacerbated as a result of the operation of the wetland.~~		
~~***Monitoring Provision***~~ ~~DLW8. Samples collected under Condition 0 shall be analysed for the following parameters:~~ ~~a. Total Phosphorus (TP)~~ ~~b. Dissolved Reactive Phosphorus (DRP)~~ ~~c. Total Nitrogen (TN)~~ ~~d. Nitrate Nitrogen (NO3-N)~~ ~~e. Nitrite Nitrogen (NO2N)~~ ~~f. Ammoniacal Nitrogen (NH$-N)~~ ~~g. Escherichia coli (E. coli)~~ ~~h. Dissolved oxygen (field measurements)~~ ~~i. Electrical Conductivity (EC) (field measurements)~~ ~~j. Chloride~~ ~~k. Static water level~~ ~~l. pH (field measurement and laboratory measurement)~~ ~~m.~~a. ~~Soluble Carbonaceous Biological Oxygen Demand (ScBOD5)~~		
~~DLW9. Results of this monitoring shall be transferred within ten working days of their receipt to the Manawatu-Wanganui Regional Council in a format compatible with the Manawatu-Wanganui Regional Council systems.~~		
~~DLW10. The results from the monitoring required by condition 6 of this permit shall be collated, analysed and interpreted and included in the Annual Report, as required by **condition G17** in the General Conditions.~~		
DLW11. **Wetland Development and Maintenance** **Within 12 months** of commencement of this permit, this consent holder shall submit to the Manawatu-Wanganui Regional Council a technical management plan (TMP) for certification for both the treatment and biodiversity wetlands. The wetlands are to be designed in general accordance with the application and in particular Appendix III of **APP-2018202081.00** – Eketāhuna WWTP Wetland Proposal. The management plan shall include but not be limited to information demonstrating the following matters: **Construction and Establishment phase of treatment wetland** a. Final details of the construction design of the treatment wetland; i) The design shall demonstrate that, once constructed, the average water depth shall not exceed 300mm and the maximum water depth shall not exceed 500mm. ii) A functional explanation of the hydraulic structures (weirs) that will be utilised to ensure the depths are not exceeded shall be provided. ~~ii)~~iii) Details of reinforced flood sills for the upstream and downstream ends b. Final design details of the weirs, each weir shall be built with a reinforced spillway; i) The final design shall demonstrate that the width to length ratio of between 3:1 and 5:1 will be achieved.	Applicant's position is that detailed performance monitoring is not required. Primary purpose is for allowing land passage prior to discharge. Cultural monitoring is proposed. As the applicant has recommended that the compliance monitoring point be at the end of the wetland prior to the outlet structure. This is sufficient to avoid effects on the river. Not relying on the wetland for treatment, but good	

c. The final treatment wetland surface area shall be not less than 5500m^2; d. The plan shall contain a specific planting plan to demonstrate how the vegetation to be planted shall be established within 6 months of the completion of the bulk earthworks associated with the treatment wetland such that the treated wastewater shall pass through the wetland no later than **1 July 2020**2021**.** e. Planting in the treatment wetland shall be at a density of 2 plants per square metre and the entire base of the wetland shall be planted. f. The plan shall demonstrate that the topsoil stripped to allow for the formation of the wetland shall be re-laid prior to planting. g. The plan shall demonstrate that the topsoil stripped to allow for the formation of the wetland shall be re-laid prior to planting; h. Demonstrate how the treatment plant shall be managed so as to allow for gradual introduction of the treated wastewater to the treatment wetland to allow for planted seedlings to adapt to the fully saturated conditions. i. Demonstrate how the formation of preferential flow paths will be prevented within the wetland, and if preferential flow paths do develop, the process that will be followed to overcome the problem. ~~j. A detailed performance monitoring programme including remedial actions to be undertaken should the wetland not perform as designed.~~ k. Information demonstrating that 95% of the expected maximum treated wastewater flow shall be retained in the wetland for not less than **72**[4] hours. **ADVICE NOTE:** While a length to width ration of between 3:1 and 5:1 is optimal for the purposes of design, a ration of up to 10:1 is acceptable and may be necessary in portions of the wetland depending on local ground conditions, such as substrate encountered.	design principles are proposed. Note that do not require performance standards in between treatment processes at treatment plants.	
DLW12. **Management Plan for Treatment Wetland** Vegetation growing in the wetted area of ~~in~~ the treatment wetland shall be maintained so that ~~the wetted area~~it remains open to sunlight. **Advice Note**: the sedge vegetation within the wetland needs to be exposed to full sunshine to retain its vigor. Tall vegetation adjacent to the wetland could result in shading so should not be planted.		
DLW13. Once established the vegetation shall be pruned not less than once every five years. Material that is pruned shall be removed off site and disposed at an appropriate facility.		
DLW14. Weeding of the Treatment Wetland shall be undertaken manually.		
DLW15. In-fill planting shall be undertaken annually during the management phase to replace gaps formed due to plant mortality and to maintain vegetative cover of 95% in the wetland.		

[4] ~~As per the information contained in Kahungunu's CVA~~

~~***Post-development Assurance***~~ ~~**[Following confirmation from the applicant, condition 14 may not be required.]**~~ ~~DLW16. Should the consent holder not achieve Condition 0 (the pond lining condition) by 1 July 2020, a plan to install and monitor groundwater at one up-gradient and two down-gradient monitoring wells will be provided to Manawatu-Wanganui Regional Council for approval. Groundwater shall be monitored six-monthly for the suite of analytes listed in **condition 0** above and shall commence no later than **1 September 2019.**~~	Not proposing monitoring bores	
~~**DLW17.** The in-situconstructed permeability of the material should be confirmed and documented by an appropriately qualified engineer or scientist.~~		

4.	*Condition Schedule ATH-2013011395.01 – Eketāhuna Wastewater Treatment Plant Discharge to Air Permit*	
HRC		**Applicant Comment**
Pre-Development Assurance		
A1.	**Within two months** of the granting of this permit**,** the permit holder shall provide an Odour Operation and Management Plan (OMP) for certification to the Regulatory Manager of the Manawatu-Wanganui Regional Council. The purpose of the OMP shall be to detail the measures the permit holder intends to take to avoid and mitigate the potential for odour from the wastewater treatment plant and ponds. The Operation and Management Plan shall include, but not be limited to the following: d. Details of regular inspections, plant maintenance and cleaning as required to avoid offensive odours; e. Responsibilities of on-site staff; f. Monitoring procedures, including reporting procedures for measuring dissolved oxygen (DO), g. A programme for developing reference diurnal DO profiles during the year; h. Contingency procedures in the event of equipment failures; i. A complaints procedure including; i. Provision of a 24-hour telephone contact number, ii. A stated commitment by the permit holder to respond to odour complaints within a specified time period, iii. Actions to be taken by the permit holder to verify complaints iv. Provision for recording the responses made by the permit holder to complaints, and v. Records of actions taken by the permit holder to address the sources of any verified odour. j. Management procedures for storage and handling of primary screenings and other solid wastes handling; and k. Procedures for monitoring and managing pond sludge levels to minimize the risk of upset conditions in the ponds resulting in offensive odours.	
Environmental Standards		
A2.	The discharge to air authorised by this consent shall not cause the emission of odour that in the opinion of the Manawatu-Wanganui Regional Council's Consents Monitoring Officer, is offensive or objectionable at or beyond the property boundary of the Eketāhuna Wastewater Treatment Plant site. **ADVICE NOTE:** When considering the objectionableness of odour, the Manawatu-Wanganui Regional Council will take into consideration the FIDOL factors: frequency, intensity, duration, offensiveness and location	
A3.	The Consent Holder shall keep a complaints register to record complaints relating to discharges of odour or contaminant gases to air arising from the Wastewater Treatment Plant. The register shall include: a. The details of the complainant if given; b. The location of where the contaminant, e.g. odour, was detected; c. A description of the wind speed and direction when the alleged adverse effect was detected by the complainant; d. The date and time of the detection; e. The most likely cause of the discharge detected; f. The dissolved oxygen levels in both ponds; and g. If applicable, any corrective action undertaken by the Consent Holder to avoid, remedy or mitigate the adverse environmental effect detected by the Complainant.	
A4.	The Consent Holder shall advise the Manawatu-Wanganui Regional Council's Consents Monitoring Team within 24 hours of any complaints relating to air discharges being received.	

A5.	A copy of information recorded in the complaints register shall be included in the Annual Environmental Report required by **condition G17** of the General Conditions. The Annual Environmental Report shall be provided to the Regulatory Manager by 31 October of each year.	
A6.	The permit holder shall monitor Dissolved Oxygen in the wastewater storage ponds and ensure that the Dissolved Oxygen measurement is at or above 0.5 mg/L. **ADVICE NOTE:** A calibrated handheld meter should be used to measure DO levels. Readings should be taken at similar times of the day as detailed in the Operational and Management Plan.	
A7.	In the event that any dissolved oxygen measurement is less than 0.5 mg/L, the consent holder shall take appropriate action to raise the dissolved oxygen as necessary to avoid the occurrence of an incident likely to cause non-compliance with **condition A2**.	
A8.	The consent holder shall advise the Consents Monitoring Team at least fourteen (14) days prior to undertaking any pond desludging works. The consent holder shall include as part of this advice, notice to the Regional Council of the method or methods proposed for sludge removal, the likely duration of the activity and the methods that will be used to manage the discharge of odour that has the potential to cause non-compliance with **condition A2**.	

5.	*Condition Schedule ATH-2018202078.00, ATH-2018202079.00 and ATH-2018202080.00 – Eketāhuna Wastewater Treatment Plant Earthworks, Bund and Diversion Consents*	
HRC		**Applicant Comment**
Pre-development Assurance		
EW1.	These land use consents and diversion permit authorise the following activities: a. Land disturbance including earthworks and cut and fill associated with the creation of a wetland and diversion bund and discharge structure, b. Diversion of the floodflows of the Makakahi River around the wetland and bund structure, such works shall be undertaken on the property legally described as Lots 41 & 42 DP 1745, Pt Sec 22 Eketāhuna Settlement (the Golf Course) at approximate map reference NZTopo50 BN35:280-977 (hereafter referred to as the property).	
EW2.	The consent holder must undertake the activity in general accordance with the consent application including all accompanying plans and documents first lodged with the Manawatu-Wanganui Regional Council on **29 June 2018.** **ADVICE NOTE:** Where there may be inconsistencies between information provided by the applicant and conditions of the resource consent, the conditions of the resource consent will apply. **ADVICE NOTE:** Any variance from the location, design concepts and parameters, implementation and or operation may require a new resource consent or a change of consent conditions pursuant to section 127 of the Resource Management Act 1991.	
EW3.	The consent holder shall be responsible for all contracted operations related to the exercise of these resource consents, and shall ensure contractors are made aware of the conditions of these resource consents and ensure compliance with those conditions.	
EW4.	A copy of these consents shall be kept onsite at all times that physical works authorised by these resource consents are being undertaken and shall be produced without unreasonable delay upon request from a servant or agent of the Manawatu-Wanganui Regional Council. **ADVICE NOTE:** An electronic version on a smartphone or tablet is acceptable	
EW5.	Prior to activities commencing as authorised by these resource consents, the consent holder shall appoint a representative(s) who shall be the Manawatu-Wanganui Council's principal contact person(s) in regard to matters relating to these resource consents. The consent holder shall inform the Manawatu-Wanganui Regional Council's Regulatory Manager of the representative's name and how they can be contacted, 5 working days prior to the resource consent being exercised. Should that person(s) change during the term of these resource consents, the consent holder shall immediately inform the Manawatu-Wanganui Regional Council's Regulatory Manager and shall also give written notice to the Manawatu-Wanganui Regional Council's Regulatory Manager of the new representative's name and how they can be contacted	
EW6.	The consent holder shall arrange and conduct a pre-construction site meeting and invite the Manawatu-Wanganui Regional Council's Regulatory Manager, the site representative(s) nominated under **condition EW5** of these consents, the contractor, and any other party representing the consent holder prior to any work authorised by this consent commencing on site. **ADVICE NOTE:** In the case that any of the invited parties, other than the site representative does not attend this meeting, the consent holder will have complied with this condition, provided the invitation requirement is met.	
EW7.	At least **20 working days** prior to the commencement of the activities authorised by these resource consents, the consent holder shall provide to the Manawatu-Wanganui Regional Council's Regulatory Manager for certification a copy of the design and specification of all works (diversion bund and discharge structure design plan), as prepared by an appropriately qualified and experienced Engineer.	

EW8.	At least **20 working days** prior to the commencement of the activities authorised by these resource consents, the consent holder shall provide to the Manawatu-Wanganui Regional Council's Regulatory Manager a revised and updated "Erosion and Sediment Control Plan" (E&SCP). The E&SCP shall be based upon and include, specific principles and practices which are appropriate for the activities authorised by this consent and contained within the Greater Wellington Regional Council document titled "Erosion & Sediment Control – Guidelines for the Wellington Region dated September 2002 & Reprint 2006". The updated E&SCP shall address the following aspects relating to the works: a. Details of all principles, procedures and practices that will be implemented to undertake erosion and sediment control to minimise the potential for sediment discharge from the site, including flocculation; b. The design criteria and dimensions of all key erosion and sediment control structures; c. A site contour plan of a suitable scale to identify; i. The locations of waterways; ii. The extent of soil disturbance and vegetation removal; iii. Any "no go" and/or buffer areas to be maintained undisturbed adjacent to watercourses; iv. Areas of cut and fill; v. Locations of topsoil stockpiles; vi. All key erosion and sediment control structures; vii. The boundaries and area of catchments contributing to all stormwater impoundment structures; viii. The locations of all specific points of discharge to the environment; and ix. Any other relevant site information d. Construction timetable for the erosion and sediment control works and the bulk earthworks proposed; e. Timetable and nature of progressive site rehabilitation and re-vegetation proposed; f. Maintenance, monitoring and reporting procedures; g. Rainfall response and contingency measures including procedures to minimise adverse effects in the event of extreme rainfall events and/or the failure of any key erosion and sediment control structures; h. Procedures and timing for review and/or amendment to the E&SCP; and i. Identification and contact details of personnel responsible for the operation and maintenance of all key erosion and sediment control structures.	
EW9.	The E&SCP and the diversion bund and discharge structure design plan required by **condition EW7 and EW8** shall be certified in writing by the Manawatu-Wanganui Regional Council's Regulatory Manager prior to any activities authorised by these resource consents commencing.	
EW10.	The consent holder shall undertake all earthworks authorised by this consent in accordance with the certified E&SCP and diversion bund and discharge structure design plan.	
EW11.	Any changes proposed to the E&SCP and diversion bund and discharge structure design plan required by **condition EW7 and EW8** shall be confirmed in writing by the consent holder and certified in writing by the Manawatu-Wanganui Regional Council's Regulatory Manager or his agent acting in a technical certification capacity, prior to the implementation of any changes proposed.	

EW12. The consent holder shall ensure that a copy of the certified E&SCP and diversion bund and discharge structure design plan, including any certified amendments, is kept onsite and this copy is updated within **five (5) working days** of any amendments being certified.	
EW13. The consent holder shall contact the Manawatu-Wanganui Regional Council's Regulatory Team **five (5)** working days prior to the commencement of the construction, installation and disturbance works authorised by these consents and on completion of the works. **ADVICE NOTE:** The Regulatory Team can be contacted on 0508 800 800, -OR- compliance.shared@horizons.govt.nz	
Environmental Standards EW14. The consent holder shall ensure that the soluble aluminium concentration of any discharge from a sediment retention pond or decanting earth bund that is treated with an aluminium based flocculent shall not exceed 0.2 grams per cubic metre.	
EW15. The consent holder shall ensure that the pH of any discharge from and sediment control structure treated with any flocculent shall be no less than 5.5 or greater than 8.5 pH units.	
EW16. The consent holder shall ensure that the suspended solids concentration of any discharge from any sediment control device, including but not limited to sediment retention ponds, decanting earth bunds does not exceed 150 grams per cubic metre. **ADVICE NOTE:** The above suspended solids consent limit does not apply during storm events where silt laden stormwater is discharging over the emergency spillway.	
EW17. The consent holder shall ensure that sediment losses discharged from the site during storm events greater than the 5 per cent AEP are minimised by adhering to the E&SCP.	
EW18. The consent holder shall ensure that all cleanfill material deposited at the site is free of pest plants identified in the Manawatu-Wanganui Regional Council Pest Plant Strategy, combustible, putrescible (except that cleanfill material may contain up to 5% by weight putrescible matter), degradable or leachable components, hazardous substances products or materials derived from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices, materials that may present a risk to human health, or liquid waste.	
EW19. The consent holder shall ensure that sediment losses to surface water arising from the exercise of these resource consents are minimised during the duration of the works and during the term of this consent. In this regard, erosion and sediment control measures shall be established and maintained in accordance with the certified E&SCP.	
EW20. All earthmoving machinery, pumps, generators and ancillary equipment shall be operated in a manner, which ensures spillages of fuel, oil and similar contaminants are prevented, particularly during refuelling and machinery servicing and maintenance. Refuelling and lubrication activities shall be carried out away from any water body, ephemeral water body, or overland flow path, such that any spillage can be contained so that it does not enter surface water.	
EW21. The consent holder shall ensure that, as far as practicable, all clean water run-off from stabilised surfaces including catchment areas above the site shall be diverted away from the exposed areas via a stabilised system to prevent erosion. The consent holder shall also ensure the outfall(s) of these systems are protected against erosion.	
EW22. The consent holder shall ensure that all sediment laden run-off from the site is treated by sediment retention structures. These structures are to be fully operational before bulk earthworks commence and shall be maintained to perform at least at 80% of their operational capacity and be designed in accordance with the certified E&SCP.	

EW23.	The consent holder shall ensure that all erosion and sediment control structures are inspected on a weekly basis and within 24 hours of each rainstorm event that is likely to impair the function or performance of the controls.	
EW24.	The consent holder shall carry out monitoring and maintenance of erosion and sediment controls in accordance with the conditions of these resource consents and shall maintain records detailing: c. The date, time and results of the monitoring undertaken; and d. The erosion and sediment controls that required maintenance; and e. The date and time when the maintenance was completed. These records shall be provided to the Manawatu-Wanganui Regional Council's Regulatory Manager at all reasonable times and within 72 hours of a written request to do so	
EW25.	Earthworks shall not be conducted during the period **1 May to 30 September** inclusive during any year that these resource consents are current, apart from necessary maintenance works, unless certified in writing by the Manawatu-Wanganui Regional Council's Regulatory Manager. **ADVICE NOTE:** Maintenance is defined in the One Plan 2016 (Change 1).	
EW26.	Requests to undertake earthworks during the period **1 May to 30 September** inclusive, for any year that these resource consents are current, shall be submitted in writing to the Manawatu-Wanganui Regional Council by 1 April and shall be in the form of amendments to the certified E&SCP in accordance with condition **EW8** of this consent. **ADVICE NOTE:** In considering a request for the continuation of winter earthworks, the Manawatu-Wanganui Regional Council will consider a number of factors; including: • The nature of the site and the winter soil disturbance works proposed; • The quality of the existing/proposed erosion and sediment controls; • The compliance history of the site/operator; • Seasonal/local soil and weather conditions; • Soil moisture content and runoff/ponding potential; Effects on the cultural values of tangata whenua; • Sensitivity of the receiving environment; and • Any other relevant factor.	
EW27.	The works shall remain the responsibility of the Consent Holder and be maintained to ensure that: a. any erosion, scour or instability of the stream bed or banks that is attributable to the works carried out as part of this consent is remedied by the consent holder within **10 working days**; b. fish passage is not impeded as a result of the works; and c. the works shall not adversely affect the ability of the stream to convey flood flows or floating or flood borne debris and shall remain substantially free of debris.	
Post development Assurance		

EW28.	**One month** following completion of wetland construction, the Consent Holder shall ensure that the wetland is fenced off and remains stock proof for the duration of this consent.	
EW29.	Notwithstanding **condition EW31**, the consent holder shall ensure those areas of the site where earthworks have been completed shall be stabilised against erosion as soon as practically possible and within a period not exceeding 14 days after completion of any works authorised by these resource consents. Stabilisation shall be undertaken by providing adequate measures (vegetative and/or structural) that will minimise sediment runoff and erosion to the satisfaction of the Manawatu-Wanganui Regional Council acting in a technical certification capacity. The consent holder shall monitor and maintain the site until vegetation is established to such an extent that it prevents erosion and prevents sediment from entering any water body.	
EW30.	The removal of any erosion and sediment control measures from any area where soil has been disturbed as a result of the exercise of these resource consents shall only occur after consultation and technical certification has been obtained from the Manawatu-Wanganui Regional Council. In this respect, the main issues that will be considered include: a. The quality of the soil stabilisation and/or covering vegetation; b. The quality of the water discharged from the rehabilitated land; and c. The quality of the receiving water.	
EW31.	Re-vegetation and/or stabilisation of all disturbed areas is to be completed in accordance with the measures detailed in the certified E&SCP.	
EW32.	The works shall remain the responsibility of the consent holder and shall be maintained so that any erosion, scour or instability of the works that is attributable to the works carried out as part of this consent is remedied by the consent holder within **ten (10)** working days.	
EW33.	The consent holder shall ensure that the site is appropriately stabilised by **30 April** of each year unless otherwise certified in writing by the Manawatu-Wanganui Regional Council. Stabilisation shall be undertaken by providing adequate measures (vegetative and/or structural and including, pavement, metalling, hydro-seeding, re-vegetation and mulching) that will minimise erosion of exposed soil to the extent practical.	