Recommendation on an application for a resource consent under the Resource Management Act 1991

Discretionary activity

Application Numbers:	BUN60382589 (Council Reference) LUC60382101 (s9 Land Use Consent) WAT60382650 (s14 Water Permit – Groundwater) DIS60383684 (s15 Discharge of contaminants permit)
Applicant's Name:	Watercare Services Limited
Site Address:	660 and 670 Richardson Road, Mount Roskill
Legal Description:	660 Richardson Road - PT ALLOT 77 SEC 13 Suburbs Auckland, ALLOT 78 SEC 13 Suburbs Auckland, ALLOT 85 SEC 13 Suburbs Auckland, ALLOT 120 SEC 13 Suburbs Auckland, ALLOT 79 SEC 13 Suburbs Auckland 670 Richardson Road - Lot 174 DP 17584, PT Lot 1466 DP 22827, PT ALLOT 9 SEC 13 Suburbs Auckland

Proposal:

The installation of an 810m (approximately) long wastewater pipe with a diameter of up to 1200mm including: earthworks; works within a flood plain and overland flow paths; construction noise non-compliances; tree removal, pruning and root zone works; the disturbance of contaminated land and the discharge of contaminants; and the diversion and dewatering of groundwater.

The following resource consents are required:

Land use consents (s9) – LUC60382101

District

Auckland Unitary Plan (Operative in Part) (**AUP(OP)**)

Noise and Vibration

- The undertaking of construction works that will not comply with the construction noise limits set out in Standard E25.6.27.(1), is a **restricted discretionary activity** under Rule

E25.4.1(A2).

Infrastructure

- The undertaking of earthworks within open space, residential, and road zoned environments associated with the installation of wastewater infrastructure that exceed 2,500m^2 and 2500m^3, is a **restricted discretionary activity** under Rule E26.5.3.1(A97 and A97A).
- The removal of vegetation within an open space zone that does not comply with Standard E26.3.5.1, is a **restricted discretionary activity** under Rule E26.3.3.1(A84).
- Works within the protected root zone of trees located within an open space zone that are not otherwise provided for, is a **restricted discretionary activity** under Rule E26.4.3.1(A88).
- The removal of trees located within an open space zone that exceed 4m in height, is a **restricted discretionary activity** under Rule E26.4.3.1(A92).

Natural Hazards and Flooding

- The provision of wastewater infrastructure located within a 1% AEP floodplain and overland flow paths, is a **restricted discretionary activity** under Rule E36.4.1(A56).

National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011 (**NES:CS**)

- The undertaking of earthworks on land that is contaminated and where a detailed site investigation has not been undertaken, is a **discretionary activity** under Regulation 11(2).

Regional

Infrastructure

- The undertaking of earthworks within open space, residential, and road zoned environments associated with the installation of the proposed wastewater infrastructure that exceed 2,500m^2 and are located within a sediment control protection area, is a **restricted discretionary activity** under Rule E26.5.3.2(A107).

Water permit (s14) – WAT60382650

Auckland Unitary Plan (Operative in Part)

Taking, Using, Damming and Diversion of Water and Drilling

- The diversion of groundwater associated with excavation works that exceed the permitted activity standards set out in Table E7.6.1.10 (they will result in the take of water for more than 30 days), is a **restricted discretionary activity** under Rule E7.4.1(A28).
- Dewatering associated with a groundwater diversion that does not meet the associated permitted activity standards (as set out above), is a **restricted discretionary activity** under Rule E7.4.1(A20).

Discharge permit (s15) – DIS60383684

Contaminated Land

- The discharge of contaminants into air or water, or onto or into land not meeting Standard E30.6.2.1, is a **discretionary activity** under Rule E30.4.1(A7).

I have read the application, supporting documents and the report and recommendations on the consent application. I am satisfied that I have sufficient information to consider the matters required by the Resource Management Act 1991 (RMA) and make a decision under delegated authority on the application.

Acting under delegated authority, under sections 104, 104B, 105 and 107 of the RMA and Part 2, the application is **GRANTED.**

1. Reasons

The reasons for this decision are:

1. In accordance with an assessment under s104(1)(a) and (ab) of the RMA, the actual and potential effects from the proposal will be of an acceptable nature and scale in this environment. This is because the proposed works have been designed in a manner that is respectful of their surrounding environment with any adverse relating to earthworks, flooding, contamination, trees, groundwater, and amenity values mitigated by the:

    a. implementation of accidental discovery protocols and appropriate erosion and sediment control, geotechnical, construction management, and tree protection measures, which along with the undertaking of replacement planting as necessary will minimise adverse effects resulting from physically undertaking the proposed works;

    b. measures proposed to ensure that adverse traffic and noise and vibration effects during construction are managed appropriately;

    c. underground and / or ground level nature of the development, which ensures that adverse effects with respect to increased levels of flooding (other than during the construction period) will not result;

    d. implementation of measures to minimise the risk of contamination exposure with respect to the environment and human health and ensuring that all worked areas are remediated appropriately;

    e. implementation of detailed monitoring measures to quantify ground settlement and adjust the works as necessary to ensure that acceptable limits are not exceeded, with any building, structure, infrastructure, and services damage that may result to be remedied as necessary;

f. positive effects in respect of:

i. enhanced wastewater management within the subject catchment area through the provision of an additional pipe with increased capacity, thereby improving the manner in which wastewater is discharged and reducing risk of uncontrolled discharges; and

ii. the remediation of contaminated land.

2. In accordance with an assessment under s104(1)(b) of the RMA, the proposal is consistent with the requirements of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 and the relevant objectives, policies and assessment criteria within Chapters E1 'Water Quality and Integrated Management', E2 'Water Quantity, Allocation and Use', E7 'Taking, Using, Damming and Diversion of Water and Drilling', E25 'Noise and Vibration', E26 'Infrastructure', E30 'Contaminated Land' and E36 'Natural Hazards and Flooding' of the Auckland Unitary Plan (Operative in Part) for the following reasons:

a. There is a functional need for the works, being the provision of wastewater infrastructure to enable and facilitate urban intensification within the surrounding urban environment and the need to reduce overflows from the existing wastewater network, with no practical alternative options being available to achieve the same outcomes given the location of the existing services that the proposed infrastructure needs to connect to.

b. There are no adjacent terrestrial or freshwater ecosystems that may be adversely affected as a result of groundwater related activities, with any adverse effects resulting with respect to the underlying East Coast Bays Formation (Waitemata) Aquifer being negligible in extent.

c. The level of ground settlement that will result from the proposed groundwater diversion and dewatering works has been assessed as low. To address any unforeseen settlement risk due to the uncertainty of geology and related groundwater flows and performance of the ground retaining structures, detailed monitoring of the changes to groundwater levels is proposed, with the works to be adjusted as necessary to ensure that settlement levels remain within acceptable limits. Pre-and-post-condition surveys of buildings and structures potentially susceptible to damage are also proposed, with remedial works to be implemented to address any damage that may occur.

d. Erosion and sediment control measures of suitable scale and design will be implemented, which will limit the potential for erosion to occur and suitably control and contain any sediment runoff that is unavoidable, noting the importance of doing so with respect to the ecological and cultural values of the subject stream and surrounding environment.

e. The earthworks will be undertaken in accordance with geotechnical recommendations, which in combination with their appropriate scale in terms of excavation depth and the implementation of suitably designed retaining structures, including the provision temporary sheet piles during construction, ensures that adverse land stability issues with respect to the site and surrounding environment are unlikely to result.

f. The implementation of accidental discovery protocols will ensure that any artefacts of interest to Māori that may be uncovered will be identified and preserved as necessary.

g. Adverse noise and vibration effects resulting from undertaking the proposed works will be suitably managed through the implementation of a detailed construction noise and vibration management plan and best practicable option construction management measures. This includes the installation of temporary noise barriers, the appropriate selection of construction equipment, compliance with structural integrity and amenity vibration limits, undertaking works when sites and buildings are vacant, and liaising with neighbouring site occupants to ascertain levels of sensitivity and suitable times for undertaking high disturbance works. These factors ensure that adverse noise and vibration effects will be minimised to as great an extent as possible, and that any resulting adverse effects, noting the limited duration of the noise exceedances, will be mitigated to acceptable levels.

h. Adverse construction traffic effects will be managed through the implementation of a detailed construction traffic management plan, which will ensure that any adverse effects as a consequence of increased levels of vehicle movements and on-site activity will not unduly adversely affect the safe and efficient movement of vehicles along the local road network.

i. The trees proposed for removal will be mitigated by the replacement planting proposed, noting that proposed construction methodology will prioritise tree retention where possible, with trees to retained and worked around with arboricultural supervision as far as practicable.

j. The works within the rootzone of retained protected vegetation will be undertaken in accordance with accepted arboricultural practices, which ensures that their future health and wellbeing will be provided for and that the natural amenity values they provide with respect to the surrounding environment will be maintained.

k. The implementation of appropriate works methodologies will minimise the risk of contaminant exposure and ensure that all contaminated material encountered is disposed of in an appropriate manner. These measures, in conjunction with appropriate remediation of the works areas will ensure that the quality of the environment is maintained and enhanced, and that the health, wellbeing and safety of people is provided for.

l. The proposed earthworks will not diminish the capacity of the works and the subject

floodplain to contain and convey the flow of water during a design flooding event, nor will flood waters be diverted onto sites that are currently unaffected by flooding. Any adverse effects during the construction phase will be minimal in extent and will be addressed by the implementation of cleanwater diversions that will direct water away from the proposed works area and minimise associated levels of flood risk with respect to the surrounding environment.

3. The provisions of section 105 of the RMA will be met, as the proposed discharges represent the best practicable option, the receiving environment will not be adversely affected in an unacceptable manner and discharge into an alternative receiving environment is neither practical nor necessary.

4. The provisions of section 107 of the RMA will be met, as after reasonable mixing, the resulting discharges will not give rise to any of the following effects on receiving waters:

   a. The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials.

   b. Any conspicuous change in the colour or visual clarity.

   c. Any emission of objectionable odour.

   d. The rendering of fresh water unsuitable for consumption by farm animals.

   e. Any significant adverse effects on aquatic life.

5. In the context of the proposed discretionary application development where the objectives and policies in the relevant statutory documents were prepared having regard to Part 2 of the RMA, they capture all relevant planning considerations and contain a coherent set of policies designed to achieve clear environmental outcomes. As they also provide a clear framework for assessing all relevant potential effects, there is no need to go beyond these provisions and look to Part 2 in making this decision as an assessment against Part 2 would not add anything to the evaluative exercise.

6. Overall, the proposal is considered to result in acceptable actual and potential effects and is consistent with the relevant objectives and policies of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 and the Auckland Unitary Plan (Operative in Part) and Part 2 of the RMA.

2. Conditions

Under section 108 of the RMA, this consent is subject to the following conditions:

General Conditions – Applicable to All Consents / Permits

General

Application Documents

1. The consented development must be carried out in accordance with the plans and all information submitted with the application, detailed below, and all referenced by the Council as consent numbers LUC60382101, WAT60382650 and DIS60383684 of BUN60382589:

    a. Application form and Assessment of Environmental Effects, prepared by Tonkin & Taylor Limited, Job Number 1015172.1400, Version 1.0, dated July 2021.

    b. Further information response letter, prepared by Tonkin & Taylor Limited, Job Number 1015172.1400, dated 1 November 2021.

    c. Further information response letter, prepared by Tonkin & Taylor Limited, Job Number 1015172.1400, dated 10 December 2021.

    d. Further information response emails from Xenia Meier of Watercare Services Limited, dated 3 November 2021, 10 and 22 December 2021 and 4 February 2022.

    e. Erosion and Sediment Control Plan, prepared by Tonkin & Taylor Limited, Job Number 1015172.1400, Version 1, dated July 2021.

    f. Groundwater and Dewatering Settlement Overview Memorandum, prepared by Tonkin & Taylor Limited, Job Number 1015172.1400, dated 24 June 2021 (updated 1 and 30 November 2021).

    g. Assessment of Settlement Effects, prepared by Tonkin & Taylor Limited, Job Number 1015172.1400, dated 1 November 2021 (updated 30 November 2021).

    h. Ground Contamination Assessment, prepared by Tonkin & Taylor Limited, Job Number 1015172.1400, Version 1, dated July 2021.

    i. Construction Traffic Effects Assessment, prepared by Tonkin & Taylor Limited, Job Number 1015172.1400, Version 1, dated July 2021.

    j. AUP Chapter E27 Assessment and Vehicle Tracking Assessment, no author, reference or date.

    k. Construction Noise and Vibration Assessment, prepared by Tonkin & Taylor Limited, Job Number 1015172.1400, Version 1.0, dated July 2021.

    l. Construction Noise and Vibration Assessment Table 6.2 Addendum, no author,

reference or date.

m. Indicative Construction Sequence details, no author, reference or date.

n. Arboricultural Report, prepared by The Tree Consultancy Company, dated 26 May 2021.

o. Archaeological Appraisal Report, prepared by Clough & Associates Limited, dated February 2021.

p. Plans as detailed below:

Drawing No.	Title	Prepared by	Dated
DSCIN003-DEL-SKT-C-J-00006, Issue A	Keith Hay Park – Branch 9 Mt. Roskill (DSB09) 82 Gravity Sewer Including Manholes Plan and Longitudinal Section – Consent Option 2 – Sheet 1 of 3	Watercare Services Limited	3 February 2021
DSCIN003-DEL-SKT-C-J-00007, Issue A	Keith Hay Park – Branch 9 Mt. Roskill (DSB09) 82 Gravity Sewer Including Manholes Plan and Longitudinal Section – Consent Option 2 – Sheet 2 of 3	Watercare Services Limited	3 February 2021
DSCIN003-DEL-SKT-C-J-00008, Issue A	Keith Hay Park – Branch 9 Mt. Roskill (DSB09) 82 Gravity Sewer Including Manholes Plan and Longitudinal Section – Consent Option 2 – Sheet 3 of 3	Watercare Services Limited	3 February 2021
DSCIN003-DEL-SKT-C-J-00011, Issue A	Keith Hay Park – Branch 9 Mt. Roskill (DSB09) 82 Gravity Sewer Including Manholes Plan and Longitudinal Section – Consent Option 3 – Sheet 1	Watercare Services Limited	3 February 2021

	of 3		
DSCIN003-DEL-SKT-C-J-00012, Issue A	Keith Hay Park – Branch 9 Mt. Roskill (DSB09) 82 Gravity Sewer Including Manholes Plan and Longitudinal Section – Consent Option 3 – Sheet 2 of 3	Watercare Services Limited	3 February 2021
DSCIN003-DEL-SKT-C-J-00013, Issue A	Keith Hay Park – Branch 9 Mt. Roskill (DSB09) 82 Gravity Sewer Including Manholes Plan and Longitudinal Section – Consent Option 3 – Sheet 3 of 3	Watercare Services Limited	3 February 2021
DSCIN003-DEL-SKT-GT-J-00013, Issue A	Keith Hay Park – Branch 9 Mt. Roskill (DSB09) 82 Gravity Sewer Including Manholes Shaft Geology – CC9 – Plan and Sections	Watercare Services Limited	18 March 2021

Consent Lapse

2. Pursuant to section 125 of the RMA, these consents lapse ten years after the date granted unless: a. The consent is given effect to; or b. The Council extends the period after which the consents lapse.

Monitoring Charges

3. The consent holder must pay the Council an initial consent compliance monitoring charge of $1,026 (inclusive of GST), plus any further monitoring charge or charges to recover the actual and reasonable costs that have been incurred to ensure compliance with the conditions attached to this consent.

Advice Note:

The initial monitoring deposit is to cover the cost of inspecting the site, carrying out tests, reviewing conditions, updating files, etc., all being work to ensure compliance with the resource consent. In order to recover actual and reasonable costs, monitoring of conditions, in excess of those covered by the deposit, must be charged at the relevant hourly rate

applicable at the time. The consent holder will be advised of the further monitoring charge. Only after all conditions of the resource consent have been met, will the council issue a letter confirming compliance on request of the consent holder.

Conditions relevant to land use consent LUC60382101 and DIS60383684 only

General

Consent Expiry

4. Pursuant to section 123 of the RMA, the regional earthworks aspects land use consent LUC60382101 and DIS60383684 expire on 28 November 2033, unless they have been surrendered or cancelled at an earlier date pursuant to the RMA.

Before Construction Starts

Pre-Start Meeting

5. Prior to the commencement of any works authorised by this consent, the consent holder must hold a pre-start meeting that:

    a. is located on the subject site;

    b. is scheduled not less than five days before the anticipated commencement of earthworks, unless an alternative timeframe is agreed between all parties;

    c. includes representation from the Council; and

    d. includes representation from the contractors who will undertake the works.

    The meeting must discuss the proposed works and must ensure all relevant parties are aware of and familiar with the necessary conditions of this consent and the various management plans that require implementation throughout.

    The following information must be made available at the pre-start meeting:

    a. Timeframes for key stages of the works authorised under this consent.

    b. Identification of any higher risk locations on the site.

    c. Resource consent conditions.

    d. The construction traffic management plan (condition 6).

    e. The construction noise and vibration management plan (condition 7).

f. The final erosion and sediment control plan (condition 8).

g. The chemical treatment management plan (condition 9).

Advice Note:

To arrange the pre-start meeting required by condition 5, please contact the Council at monitoring@aucklandcouncil.govt.nz or 09 301 01 01. The conditions of consent should be discussed at this meeting. All additional information required by the Council should be provided two days prior to the meeting.

It may be necessary to hold more than one pre-start meeting if the works detailed are to be staged or implemented separately.

Before Construction Starts

Construction Traffic Management Plan

6. Not less than 10 days prior to the commencement of any earthworks or construction activity authorised by this consent, the consent holder must submit a construction traffic management plan (**TMP**) to Council for written certification. The TMP must be prepared in accordance with the Council's requirements for traffic management plans or TMPs (as applicable) and must be consistent with the New Zealand Transport Authority's Code of Practice for Temporary Traffic Management and must address the surrounding environment, including pedestrian and cycle traffic. The TMP must, as a minimum, include:

   a. parking management plans for construction traffic at laydown areas and work sites;

   b. provision of appropriate ingress and egress routes to / from the different sites for the construction vehicles, including confirmation of appropriate heavy vehicles layover areas and over-dimensional vehicle routes;

   c. a plan to minimise the impact on public transport;

   d. a plan to maintain access to property adjacent to the work site during construction;

   e. measures to address the transportation and parking of oversize vehicles (if any);

   f. appropriate loading / working areas to minimise disruption to traffic;

   g. cleaning facilities within the site to thoroughly clean all vehicles prior to exit to prevent mud or other excavated material from being dropped on the road. In the event that material is dropped on the road, resources should be on hand to clean-up as soon as possible;

   h. traffic management plans in compliance with the latest edition of the NZTA "Code of Practice for Temporary Traffic Management" (COPTTM) document;

   i. details to ensure the site access point must be clearly signposted;

j. measures that are to be adopted to ensure that pedestrian access on the public footpaths in the vicinity of the site is safe during construction works;

k. proposed numbers and timing of heavy vehicle movements throughout the day;

l. identification of the location of vehicle and construction machinery access during the period of site works; and,

m. identification of storage and loading areas for materials and vehicles.

The approved TMP must be implemented and maintained throughout the entire period of earthworks and construction activity authorised by this consent to the satisfaction of the Council. A copy must be kept on site for inspection by authorised Council staff during monitoring visits.

Construction Noise and Vibration Management Plan

7. Not less than 10 days prior to the commencement of any earthworks or construction activity authorised by this consent, the consent holder must submit a final construction noise and vibration plan (**CNVMP**) to Council for written certification. The CNVMP must be prepared by a suitably qualified and experienced acoustic expert with its purpose being to identify and enable the implementation of the best practicable option to avoid, remedy or mitigate adverse construction noise and vibration effects, and to minimise any exceedance of the project criteria.

   The CNVMP must be prepared in accordance with the requirements of Annex E of NZS 6803:1999 as a minimum and must include:

   a. a description of the works, anticipated equipment/processes and their scheduled durations;

   b. days and hours of operation;

   c. the noise limits to be complied with for the duration of the activity;

   d. predicted noise and vibration levels at the receivers, including for tunnelling regenerated noise;

   e. management and mitigation options to be adopted for ensuring noise and vibration compliance, and any necessary contingency measures, including the offering of temporary accommodation, if necessary;

   f. methods and frequency for monitoring and reporting on construction noise and vibration;

   g. procedures for engaging with stakeholders, notification of proposed construction activities and responding to noise and vibration complaints;

   h. contact details for the site manager (or nominee) and the consent holder's project

liaison person (phone and email); and

i. an activity specific construction noise and vibration management plan (**ASCNVMP**) setting out the predicted noise and/or vibration levels, mitigation, monitoring and management measures (including communication with stakeholders and use of temporary noise barriers) that will be adopted for all construction activity, that cannot comply with the project standards specified in condition 23.

The approved CNVMP must be implemented and maintained throughout the entire period of earthworks and construction activity authorised by this consent to the satisfaction of the Council. A copy must be kept on site for inspection by authorised Council staff during monitoring visits.

Works subject to an ASCNMP must not commence until the ASCNVMP is certified by the Council. If monitoring shows that levels specified in an ASCNMP are being exceeded, work generating the exceedance must stop and not recommence until further mitigation is implemented in accordance with an amended ASCNMP certified by the Council.

Final Erosion and Sediment Control Plan

8. Not less than 10 days prior to the commencement of any earthworks activity authorised by this consent, a final Erosion and Sediment Control Plan (**ESCP**) must be prepared in accordance with Auckland Council Guideline Document 2016/005 *'Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region'* (**GD05**) and submitted to the Council. No earthworks activity on the subject site can commence until written certification from Council is provided that the final ESCP meets the requirements of GD05.

The final ESCP must contain sufficient detail to address the following matters:

a. Specific erosion and sediment control measures (location, dimensions, capacity).

b. Supporting calculations and design drawings.

c. Catchment boundaries and contour information.

d. Locations of stabilised construction entrance(s).

e. Confirmation of the construction methodology proposed to install the pipeline, including specific details regarding how each methodology will be managed.

f. Staging details, including timing and duration of construction and operation works.

g. Details of how any pumped water from any excavation will be managed.

h. Details of the earthworks that are proposed to be undertaken during the winter months (being 1 May to 30 September inclusive) of any year and any additional controls and/or management procedures that will be adopted during that period.

i. Details relating to the management of exposed areas (e.g., grassing, mulching),

including measures to achieve progressive stabilisation.

j. Monitoring and maintenance requirements.

Advice Note:

In the event that minor amendments to the final ESCP are required, any such amendments should be limited to the scope of this consent. Any amendments which affect the performance of the final ESCP may require an application to be made in accordance with section 127 of the RMA. Any minor amendments should be provided to the Council, prior to implementation to confirm that they are within the scope of this consent.

Chemical Treatment Management Plan

9. Not less than 10 days prior to the commencement of any earthworks activity authorised by this consent, a Chemical Treatment Management Plan (**CTMP**) must be prepared in accordance with GD05 and submitted to Council for written certification. No earthwork activities may commence until certification is provided by Council that the CTMP meets the requirements of GD05, and the measures referred to in that plan have been implemented. The CTMP must include as a minimum:

   a. Specific design details for the water quality treatment devices to be used on site.

   b. Monitoring, maintenance (including post-storm) and contingency programme (including a record sheet).

   c. Details of optimum dosage (including assumptions).

   d. Results of initial chemical treatment trial.

   e. A spill contingency plan.

   f. Details of the person or bodies that will hold responsibility for operation and maintenance of the water quality treatment devices and the organisational structure which will support this system.

Advice Note:

In the event that minor amendments to the CTMP are required, any such amendments should be limited to the scope of this consent. Any amendments which affect the performance of the CTMP may require an application to be made in accordance with section 127 of the RMA. Any minor amendments should be provided to the Council prior to implementation to confirm that they are within the scope of this consent.

Certification

10. Within 10 working days following implementation and completion of the specific erosion and sediment controls required by the final ESCP as per condition 8, and prior to commencement of the earthwork activity, the consent holder must provide to Council written

certification prepared by a suitably qualified and experienced person confirming that the erosion and sediment control measures have been constructed in accordance with the GD05.

Advice Note:

Certification of the erosion and sediment control structures should contain sufficient details to address the following matters:

a. *Details on the contributing catchment areas.*

b. *Location and alignment of any silt fences.*

c. *Confirmation that the sediment/settlement tank has been set up as per supplier's specifications.*

d. *Location of stabilised entranceways.*

Appointed Arborist

11. The consent holder must take all practicable measures in the detailed design of the permanent works and in the development of the construction site layout to minimise the removal of Park trees.

12. The consent holder must identify a works Arborist to be engaged to advise upon and supervise the tree protection measures required to be undertaken. A pre start site meeting is required between the contractor's representative and the Works Arborist to clarify the nature and extent of the tree protection measures required. The Works Arborist must supervise works that occur within the rootzone of retained protected trees.

Advice Note:

If appropriate, this meeting can be combined with the meeting required by condition 5.

Engineer's Work Method

13. The consent holder must provide an engineer's work method written by a Chartered Geotechnical Engineer or Chartered Engineering Geologist for the contractor to undertake the earthworks and pipe installation. This must be required to ensure stability is maintained throughout the civil works stage of the development. The work method must be provided in writing to the satisfaction of the Council at least two weeks prior to earthworks commencing on site. No works onsite are permitted prior to written approval that the engineer's work method has been reviewed and accepted by the Council.

During Construction

Earthworks

Archaeological Sites

14. If any unrecorded archaeological sites are exposed because of consented work on the site, then these sites must be recorded by the consent holder for inclusion within the Auckland Council Cultural Heritage Inventory. The consent holder must prepare documentation suitable for inclusion in the Cultural Heritage Inventory and forward the information to the Team Leader (for the Manager: Heritage Unit, heritageconsents@aucklandcouncil.govt.nz) within one calendar month of the completion of work on the site.

Geotechnical

15. The consent holder must engage a suitably qualified engineer to ensure that the earthworks are completed in accordance with the engineering plans and geotechnical recommendations. The supervising engineer's contact details must be provided in writing to the Council at least two weeks prior to earthworks commencing on site.

Uncontrolled Instability

16. All earthworks must be managed to ensure that they do not lead to any uncontrolled instability or collapse either affecting the site or adversely affecting any neighbouring properties. In the event that such collapse or instability does occur, it must immediately be rectified or as soon as practically safe.

Overland Flow Paths

17. For construction works that diverts the entry or exit point or reduces capacity of the overflow flow path, a hazard risk assessment that is proportionate to the hazard risk and nature of the hazard must be prepared and submitted to Auckland Council for certification. The hazard risk assessment must include, as relevant:

    a. The type, frequency and scale of the natural hazard.

    b. The consequences of a natural hazard event in relation to the proposed activity.

    c. The potential effects on public safety and other property.

    d. Any exacerbation of an existing natural hazard risks or creation of a new natural hazard risks.

    e. The design and construction of infrastructure to mitigate the effects of natural hazards.

    f. The effect of structures used to mitigate hazards on landscape values and public access.

    g. Any measures and/ or plans proposed to mitigate the natural hazard or the effects of

the natural hazard.

Erosion and Sediment Control

18. The erosion and sediment controls at the site must be constructed and maintained in accordance with GD05 throughout the duration of the earthwork activity, or until the site is permanently stabilised against erosion. A record of any maintenance work must be kept and be supplied to the Council on request.

19. Any sediment / settlement tanks used during earthworks, must be chemically treated in accordance with the certified CTMP as required by condition 9.

20. Water discharging from any sediment / settlement tanks used during earthworks, must achieve the following water quality standards:

    a. Water clarity >100mm; and

    b. If chemical treatment is being used, a pH between 5.5 and 8.5.

21. The site must be progressively stabilised against erosion in accordance with GD05 as soon as practicable as earthworks are finished over various areas of the site.

No Deposition

22. Earthworks must be managed to avoid the deposition of earth, mud, dirt or other debris on any public road or footpath resulting from earthworks activity on the subject site. In the event that such deposition does occur, it must immediately be removed. In no instance must roads or footpaths be washed down with water without appropriate erosion and sediment control measures in place to prevent contamination of the stormwater drainage system, watercourses or receiving waters.

Noise

Construction Noise

23. Construction noise must be measured and assessed in accordance with the provisions of New Zealand Standard NZS 6803:1999 Acoustics – Construction Noise. Noise, must be measured at 1m from the façade of any building that is occupied when the works are undertaken. Construction noise, with exception of those activities specified in a., b. and c. below, must comply with the limits contained in Table E25.6.27.1 as follows:

Table E25.6.27.1 Construction noise levels for activities sensitive to noise in all zones except the Business – City Centre Zone and the Business – Metropolitan Centre Zone

Time of week	Time Period	Maximum noise level (dBA)	
		L_{eq}	L_{max}
Weekdays	6:30am - 7:30am	60	75
	7:30am - 6:00pm	75	90
	6:00pm - 8:00pm	70	85
	8:00pm - 6:30am	45	75
Saturdays	6:30am - 7:30am	45	75
	7:30am - 6:00pm	75	90
	6:00pm - 8:00pm	45	75
	8:00pm - 6:30am	45	75
Sundays and public holidays	6:30am - 7:30am	45	75
	7:30am - 6:00pm	55	85
	6:00pm - 8:00pm	45	75
	8:00pm - 6:30am	45	75

a. Vibratory sheet piling: 81 dB L_{Aeq}.

b. Tree Removal: 80 dB L_{Aeq}.

c. Works undertaken in accordance with a certified ASCNVMP as per the requirements of condition 7 i.

Advice Note:

Where a building is occupied, all construction must comply with the vibration limits in Table E25.6.30.1 when measured in the corner of the floor of the storey of interest for multi-storey buildings or within 500mm of ground level at the foundation of a single storey building.

Table E25.6.30.1 Vibration limits in buildings

Receiver	Period	Peak Particle Velocity Limit millimetres/second
Occupied activity sensitive to noise	Night-time 10pm to 7am	0.3 mm/s
	Daytime 7am to 10pm	2 mm/s
Other occupied buildings	At all times	2 mm/s

Where a building is not occupied, or where the vibration generating work occurs for less than three consecutive days, vibration must not exceed the limits in German Industrial Standard DIN 4150-3(1999) Structural Vibration – Part 3 Effects of Vibration on Structures when measured in accordance with that Standard on any structure not on the same site. The activity must be included in the CNVMP required by condition 7.

Sheet Piling and Wood Chipping

24. Sheet piling and wood chipping must not occur between 6:00pm and 7:30am unless the permitted activity noise and vibration standards can be met.

Noise and Vibration Monitoring

25. The consent holder must engage a suitably qualified and experienced acoustic expert to carry out noise and vibration monitoring as follows:

    a. At the first commencement of sheet piling, night work, tunnelling within 30m of dwellings and any other activities with potential to infringe the noise and vibration limits; and

    b. When monitoring is requested by Council in response to reasonable complaint.

    Monitoring must be undertaken by suitably trained personnel and reviewed by an acoustic consultant if the noise measurements are within 3dB of the relevant noise limit or undertaken in a proxy location that is further away from the noise source compared to the relevant assessment position. An acoustic consultant will undertake additional noise and/or vibration measurements in the event of an exceedance.

Complaint Actions

26. Should a complaint be received by the Council or the consent holder, the consent holder must engage a suitably qualified and experienced acoustic expert to investigate within three working days of receipt of the complaint to confirm whether the noise and / or vibration limits set out in condition 23 have been exceeded.

    Advice Note:

    If the consent holder can demonstrate to the Council that a member of their staff is suitably trained and experienced to undertake the monitoring and investigation works required by conditions 25 and 26, they will be considered to be a suitably qualified and experienced acoustic expert.

Noise and / or Vibration Exceedances

27. If a noise and / or vibration limit has been exceeded:

    a. The activities causing the exceedance must cease immediately when safe to do so.

    b. Additional mitigation measures must be prepared that details:

        - The measures that will be implemented to manage the noise and / or vibration from the activity subject to the complaint so that the limits set out in condition 23 are met.

        - The noise and / or vibration monitoring regime for this work.

c. The additional measures must be submitted to Council for certification that it meets the requirements set out in condition 7.

Traffic

Keith Hay Park

28. During those times when the Keith Hay Park concrete footways are closed due to the implementation of the proposed works, provision must be made for an alternative suitably surfaced temporary shared pathway.

Eden Roskill Cricket Club

29. Except as provided for in the TMP required by condition 6, an on-road 'observer' must be present at the access during occasions of heavy trucks using the single-file section of the car park access to Eden Roskill Cricket Club.

Richardson Road

30. Except as provided for in the TMP required by condition 6, construction vehicles must not reverse manoeuvre onto Richardson Road.

Works in Proximity to Schools

31. The consent holder must ensure that works within or immediately adjacent to Hay Park School, Waikowhai Intermediate School and Hillsborough Kindergarten are programmed to occur outside of the school term where practicable.

In the event that works are required to be undertaken during school and kindergarten terms, additional temporary traffic management measures will need to be established in the vicinity of the schools and kindergarten during peak drop-off and pick-up times. These measures must be detailed in an update to the TMP required by condition 6 and must be submitted to Council for certification prior to the works commencing.

Advice Note:

School term is as determined by the Ministry of Education (www.education.govt.nz/school/school-terms-and-holiday-dates) and subject to the specific term start and end dates as advised by Hay Park School, Waikowhai Intermediate School and Hillsborough Kindergarten.

No Damage

32. Unless specifically provided for by this consent approval, there must be no damage to public roads, footpaths, berms, kerbs, drains, reserves or other public asset as a result of the earthworks and construction activity. In the event that such damage does occur, the Council's Central Monitoring team will be notified within 1 working day of its discovery. The costs of rectifying such damage and restoring the asset to its original condition must be met by the consent holder.

Advice Note:

All applications for temporary use of the road reserve during construction must be submitted to Auckland Transport as a Corridor Access Request (CAR). Applications are to be submitted electronically via https://at.govt.nz/about-us/working-on-the-road/corridor-access-requests/step-3-apply-for-corridor-access-request-car/ and 15 working days should be allowed for approval.

Contamination

Erosion and Sediment Control Plan

33. Earthworks must be undertaken in accordance with the final ESCP certified by condition 8. Any variations to the ESCP must be submitted to the council for review and certification that it appropriately manages actual and potential soil contamination effects and is within the scope of this consent, prior to implementation.

Advice Note:

The Council acknowledges that the ESCP is intended to provide flexibility of the management of the works and contaminant discharges. Accordingly, the management plan may need to be updated. Any updates should be limited to the scope of this consent and be consistent with the conditions of this consent. If you would like to confirm that any proposed updates are within scope, please contact the council. The council's certification of the ESCP relates only to those aspects of the plans that are relevant under the RMA. The certification does not amount to an approval or acceptance of suitability by the council of any elements of the management plan that relate to other legislation, for example, the Building Act 2004 or the Health and Safety at Work Act 2015.

Dust

34. During earthworks all necessary action must be taken to prevent dust generation and sufficient water must be available to dampen exposed soil, and/or other dust suppressing measures must be available to minimise dust discharges as far as practicable. The consent holder must ensure that dust management during the excavation works generally complies with the *Good Practice Guide for Assessing and Managing Dust* (Ministry for the Environment, 2016).

Unexpected Contamination

35. In the event of the accidental discovery of contamination during earthworks which has not been previously identified, including asbestos material, the consent holder must immediately cease the works in the vicinity of the contamination, notify the council within 10 working days, and engage a suitably qualified and experienced contaminated land Practitioner (**SQEP**) to assess the situation (including possible sampling and revision of the ESCP) and decide on the best option for managing the material. If the contamination is considered by the SQEP to pose significant environmental and/or health and safety issues,

the Manager must be notified immediately.

Soil Disposal

36. Any excavated material that is not re-used on site must be disposed of at a consented landfill facility unless soil sample testing demonstrates that material may be disposed of elsewhere. Evidence of the locations where excavated material has been disposed of must be retained by the consent holder during the works and made available to the council on request.

Imported Fill

37. The contamination level of any soil imported to the site must comply with the definition of 'Cleanfill material', as set out in the AUP(OP). Evidence of the locations where imported material has been sourced from must be retained by the consent holder during the works and made available to the council on request.

Sampling and Testing

38. All soil sampling must be undertaken in accordance with the Contaminated Land Management Guidelines No.5 (Ministry for the Environment, revised 2011).

Trees

Tree works

39. All tree removals, works in the rootzone of protected trees, and replacement planting in the Park must be undertaken in accordance with the Tree Protection Methodology, Tree Inventory, Mitigation and Recommendations listed in sections 6 and 7, and Appendix B & C of the Arboricultural Report, prepared by The Tree Consultancy Company, dated 26 May 2021, as referenced in condition 1. A copy of this report must be kept on site for the duration of the development period.

Following Completion of Construction

Earthworks Abandonment

40. Upon completion or abandonment of earthworks on the subject site all areas of bare earth must be permanently stabilised against erosion in accordance with GD05.

Flooding - Overland Flow Path

41. Within one month of the completion of works, the consent holder must provide a statement from an engineer to Council certifying that the alignment of the overland flow path as depicted on Council's GIS Viewer has been maintained.

Advice Note:

The entry and exit points of the flow paths should always remain free of any structures,

ensuring the flow path remains unaltered.

Geotechnical Certification

42. Certification from suitably qualified Chartered geotechnical engineer or Chartered engineering geologist must be provided to the Council, confirming that the works have been completed in accordance with the approved engineer's work method as required by condition 13, within 20 working days following completion. Written certification must be in the form of a geotechnical completion report, or any other form acceptable to the Council.

Tree Memorandum

43. All site work must be documented by the arborist including a digital record. A final completion report must be provided to the Council Urban Forest Specialist within 10 working days of site work completion. The final reporting must include a statement of effects to the trees, confirmation that tree protection was adhered to, and any recommendation for remedial work.

Conditions applicable to water permit WAT60382650 only

Definitions

Words in the ground dewatering (take) and groundwater diversion consent conditions have specific meanings as outlined in the table below.

Alarm Level	Specific levels at which actions are required as described in the relevant conditions.
Alert Level	Specific levels at which actions are required as described in the relevant conditions.
Bulk Excavation	Includes all excavation that affects groundwater excluding minor enabling works and piling less than 1.5m in diameter.
Commencement of Construction Phase Dewatering	Means commencement of Bulk Excavation and/or the commencement of the taking of any groundwater from the microtunnelling (or other trenchless methods), trench or shafts/recovery pit excavations and/or any dewatering prior to excavation.

Completion of Construction Phase Dewatering	Means, in the case of tunnels and shafts/recovery pits, when the tunnel and shafts/recovery pits have been constructed and effectively no further groundwater is being taken/diverted for the construction of the tunnel and shafts/recovery pits in accordance with the design. Means, in the case of pipe infrastructure, the stage when all pipework and pipe seals (and where required trench stops (collars) have been installed and all back filling is completed within 50 metres of a building or structure and effectively no further groundwater is being taken for the construction of the network at that location
Condition Survey	Means an external visual inspection or a detailed condition survey (as defined in the relevant conditions).
Damage	Includes Aesthetic, Serviceability, Stability, but does not include Negligible Damage. Damage as described in the table below.
External visual inspection	A condition survey undertaken for the purpose of detecting any new external Damage or deterioration of existing external Damage. Includes as a minimum a visual inspection of the exterior and a dated photographic record of all observable exterior Damage.
GSMCP	Means Groundwater and Settlement Monitoring and Contingency Plan
Monitoring Station	Means any monitoring instrument including a ground or building deformation station, inclinometer, groundwater monitoring bore, retaining wall deflection station, or other monitoring device required by this consent.
RL	Means Reduced Level.
Seasonal Low Groundwater Level	Means the annual lowest groundwater level – which typically occurs in summer.
Services	Include fibre optic cables, sanitary drainage, stormwater drainage, gas and water mains, power and telephone installations and infrastructure, road infrastructure assets such as footpaths, kerbs, catch-pits, pavements and street furniture.
SQEP	Means Suitably Qualified Engineering Professional
SQBS	Means Suitably Qualified Building Surveyor

Category of Damage	Normal Degree of Severity	Description of Typical Damage *(Building Damage Classification after Burland (1995), and Mair et al (1996))*	General Category *(after Burland – 1995)*
0	Negligible	Hairline cracks.	**Aesthetic Damage**
1	Very Slight	Fine cracks easily treated during normal redecoration. Perhaps isolated slight fracture in building. Cracks in exterior visible upon close inspection. Typical crack widths up to 1mm.	
2	Slight	Cracks easily filled. Redecoration probably required. Several slight fractures inside building. Exterior cracks visible, some repainting may be required for weather-tightness. Doors and windows may stick slightly. Typically crack widths up to 5mm.	
3	Moderate	Cracks may require cutting out and patching. Recurrent cracks can be masked by suitable linings. Brick pointing and possible replacement of a small amount of exterior brickwork may be required. Doors and windows sticking. Utility services may be interrupted. Weather tightness often impaired. Typical crack widths are 5mm to 15mm or several greater than 3mm.	**Serviceability Damage**
4	Severe	Extensive repair involving removal and replacement of walls especially over door and windows required. Window and door frames distorted. Floor slopes noticeably. Walls lean or bulge noticeably. Some loss of bearing in beams. Utility services disrupted. Typical crack widths are 15mm to 25mm but also depend on the number of cracks.	
5	Very Severe	Major repair required involving partial or complete reconstruction. Beams lose bearing, walls lean badly and require shoring. Windows broken by distortion. Danger of instability. Typical crack widths are greater than 25mm but depend on the number of cracks.	**Stability Damage**

Table 1: Building Damage Classification

Advice Note:

In the table above the column headed “Description of Typical Damage” applies to masonry buildings only and the column headed “General Category” applies to all buildings.

Consent Expiry

44. The take (dewatering) and groundwater diversion consent WAT60382650 expires on 28 November 2048 unless it has lapsed, been surrendered or been cancelled at an earlier date pursuant to section 123 of the RMA.

Review Condition

45. Under section 128 of the RMA the conditions of this consent WAT60382650 may be reviewed by the Council at the consent holder’s cost, at intervals of not less than six months following Commencement of Construction Phase Dewatering to vary the monitoring and reporting requirements and / or performance standards, to take account of new information, including the results of previous monitoring and changed environmental knowledge on:

    a. Ground conditions;

    b. Aquifer parameters;

    c. Groundwater levels; and

    d. Ground surface movement.

Notice of Commencement of Dewatering

46. The Council must be advised in writing at least ten working days prior to the date of the Commencement of Construction Phase Dewatering.

Design and Construction of Wastewater Pipeline & Associated Manholes and Temporary Pits

47. The design and construction of dewatering works and retaining walls associated with the two new 1200 mm diameter culverts and one new 1500 mm diameter culvert must be undertaken in accordance with the specifications contained in the documents referenced below:

    a. The Assessment of Environmental Effects, prepared by Tonkin & Taylor Limited, Job Number 1015172.1400, Version 1.0, dated July 2021;

    b. The further information response letter, prepared by Tonkin & Taylor Limited, Job Number 1015172.1400, dated 1 November 2021;

    c. The Groundwater and Dewatering Settlement Overview Memorandum, prepared by Tonkin & Taylor Limited, Job Number 1015172.1400, dated 24 June 2021 (updated 1 and 30 November 2021); and

d. The Assessment of Settlement Effects, prepared by Tonkin & Taylor Limited, Job Number 1015172.1400, dated 1 November 2021 (updated 30 November 2021).

Excavation Limit

48. Except where approved through the GSMCP, the Bulk Excavation – depth to invert must not extend below the following:

a. 48.4mRL at Manhole MH01A;

b. 48.7mRL at Manhole MH01;

c. 49.8mRL at Manhole MH02;

d. 50.4mRL at Manhole MH03;

e. 51.2mRL at Manhole MH04;

f. 51.8RL at Manhole MH05;

g. 52.8mRL at Temporary Pit;

h. 55.4mRL at Manhole MH06;

i. 55.8mRL at Manhole MH07;

j. 54.3mRL at Manhole MH08;

k. 54.6mRL at Manhole MH09; and

l. 55 mRL at Manhole MH10

These levels may be amended through detailed design subject to approval by the Council as part of the Groundwater Settlement Monitoring and Contingency Plan (GSMCP) approval process (provided that no GSMP is required if final design confirms construction of manhole/manholes complies with permitted activity rules E7.6.1.6 and E7.6.1.10).

Trench Stops

49. Where a trenched construction methodology is proposed, low permeability trench stops (collars) must be constructed along the pipeline within trenches to best practice standard/at a minimum of one collar for every one vertical metre change in gradient as measured with respect to the immediately previous trench stop along the alignment. The alignment is as shown on the plan titled “Keith Hay Park – Branch 9 Mt. Roskill (DSB09) 82 Gravity Sewer Including Manholes - Plan and Longitudinal Section – Consent Option 3 – Sheet 1 of 3”, dated 3 February 2021, prepared by Aecom & McMillan Jacobs, Sketch No. DSCIN003-DEL-SKT-C-J-000111, Issue A. Any amendments to this must be subject to the approval of Council as part of the GSMCP approval process.

Damage Avoidance

50. All excavation, dewatering systems, retaining structures and works associated with the diversion or taking of groundwater must be designed, constructed and maintained so as to avoid Damage to buildings, structures and Services on the site or adjacent properties outside that considered as part of the application process, unless otherwise agreed in writing with the asset owner.

Alert and Alarm Levels

51. The activity must not cause any settlement or movement greater than the Alarm Level thresholds specified in Schedule A below or as otherwise set out in the approved GSMCP. Alert and Alarm Levels are triggered when the following Alert and Alarm Trigger thresholds are exceeded:

Schedule A: Alarm and Alert Levels			
Movement		**Trigger Thresholds (+/-)**	
		Alarm	**Alert**
a)	Differential vertical settlement between any two Ground Surface Deformation Stations (the **Differential Ground Surface Settlement Alarm or Alert Level**):		
	• Adjacent to Changing Rooms at 53 Arundel Street	1:800	1:1,000
	• Adjacent to the Building at 668 Richardson Road	1:550	1:690
	• Adjacent to the Building at 670 Richardson Road	1:800	1:1,000
	• Adjacent to the Building at 13 Noton Road	1:700	1:875
b)	Total vertical settlement from the pre-excavation baseline level at any Ground Surface Deformation Station (the **Total Ground Surface Settlement Alarm or Alert Level**):		
	• Adjacent to Changing Rooms at 53 Arundel Street	14mm	11mm
	• Adjacent to the Building at 668 Richardson Road	10mm	8mm
	• Adjacent to the Building at 670 Richardson Road	10mm	8mm
	• Adjacent to the Building at 13 Noton Road	10mm	8mm

c)	Differential vertical settlement between any two adjacent Building Deformation Stations (the **Differential Building Settlement Alarm or Alert Level)**: • Changing Rooms at 53 Arundel Street • Building at 668 Richardson Road	 1:800 1:550	 1:1,000 1:690
d)	Total vertical settlement from the pre-excavation baseline level at any Building Deformation Station (the **Total Building Settlement Alarm or Alert Level**): • Changing Rooms at 53 Arundel Street • Building at 668 Richardson Road	 14mm 10mm	 11mm 8mm
e)	Distance below the pre-dewatering Seasonal Low Groundwater Level and any subsequent groundwater reading at any groundwater monitoring bore (the **Groundwater Alert Levels 1 & 2**)	N/A	(1) 0.75m (2) 1.0m

Advice Note:

The locations of the Monitoring Stations listed in Schedule A are shown on the plans titled "CS0 CC9 Keith Hay Park – Proposed Instrumentation Plan and Settlement Contour", prepared by Tonkin & Taylor, dated November 2021 – Figures 1a to 1d, Rev 0.

These levels may be amended subject to approval by the Council as part of the GSMCP approval process, and, after the receipt of pre-dewatering monitoring data, building condition surveys and recommendations from a SQEP, but only to the extent that avoidance of Damage to building, structures and Services can still be achieved.

There are conditions below that must be complied with when the Alert and Alarm Level triggers are exceeded. These include actions that must be taken immediately including seeking the advice of a SQEP.

Alert Level Actions

52. In the event of any Alert Level being exceeded the consent holder must:

    a. notify the Council within 24 hours;

    b. re-measure all Monitoring Stations within 20m of the affected monitoring location(s) to confirm the extent of apparent movement;

    c. ensure the data is reviewed, and advice provided, by a SQEP on the need for mitigation

measures or other actions necessary to avoid further deformation. Where mitigation measures or other actions are recommended those measures must be implemented;

d. submit a written report, prepared by the SQEP responsible for overviewing the monitoring, to the Council within five working days of Alert Level exceedance. The report must provide an analysis of all monitoring data (including wall deflection) relating to the exceedance, actions taken to date to address the issue, recommendations for additional monitoring (i.e., the need for increased frequency or repeat condition survey(s) of building or structures) and recommendations for future remedial actions necessary to prevent Alarm Levels being exceeded; and

e. measure and record all Monitoring Stations within 20m of the location of any Alert Level exceedance every two days until such time the written report referred to above has been submitted to the Council.

Alarm Level Actions

53. In the event of any Alarm Level being exceeded at any ground surface or building deformation station the consent holder must:

a. immediately halt construction activity, including excavation, dewatering or any other works that may result in increased deformation, unless halting the activity is considered by a SQEP to be likely to be more harmful (in terms of effects on the environment) than continuing to carry out the activity;

b. notify the Council within 24 hours of the Alarm Level exceedance being detected and provide details of the measurements taken;

c. undertake a condition survey (this could comprise either a detailed condition survey or an external visual inspection at the discretion of the SQEP responsible for overviewing the monitoring) by a SQEP or SQBS of any building or structure located adjacent to any Monitoring Station where the Alarm Level has been exceeded;

d. take advice from the author of the Alert Level exceedance report (if there was one) on actions required to avoid, remedy or mitigate adverse effects on ground, buildings or structures that may occur as a result of the exceedance;

e. not resume construction activities (or any associated activities), halted in accordance with paragraph a. above, until any mitigation measures (recommended in accordance with paragraphs d. above) have been implemented to the satisfaction of a SQEP; and

f. submit a written report, prepared by the SQEP responsible for overviewing the monitoring, to the Council, on the results of the condition survey(s), the mitigation measures implemented and any remedial works and / or agreements with affected parties within five working days of recommencement of works.

Groundwater and Settlement Monitoring and Contingency Plan

54. At least ten workings days prior to the Commencement of Construction Phase Dewatering, a GSMCP prepared by a SQEP must be submitted to the Council. Any later proposed amendment of the GSMCP must also be submitted to the Council for written approval.

    The overall objective of the GSMCP must be to set out the practices and procedures to be adopted to ensure compliance with the consent conditions and must include, at a minimum, the following information:

    a. A monitoring location plan, showing the location and type of all Monitoring Stations including groundwater monitoring bores and ground surface and building deformation stations. The monitoring plan should be based on the plans titled "CS0 CC9 Keith Hay Park – Proposed Instrumentation Plan and Settlement Contour", prepared by Tonkin & Taylor, dated November 2021 – Figures 1a to 1d, Rev 0. In any case where the location of a Monitoring Station differs substantively from that shown on the plans titled "CS0 CC9 Keith Hay Park – Proposed Instrumentation Plan and Settlement Contour", prepared by Tonkin & Taylor, dated November 2021 – Figures 1a to 1d, Rev 0, a written explanation for the difference must be provided at the same time that the GSMCP is provided.

    b. Final completed schedules B to D (as per the conditions below) for monitoring of ground surface and building deformation and groundwater (including any proposed changes to the building or structures to be monitored and the monitoring location and/or frequency based on detailed design) as required by conditions below.

    c. All monitoring data, the identification of Services susceptible to Damage and all building/Service condition surveys undertaken to date, and required by conditions below and as confirmed in the final GSMCP.

    d. A bar chart or a schedule, showing the timing and frequency of condition surveys, visual inspections and all other monitoring required by this consent, and a sample report template for the required two monthly monitoring.

    e. All Alert and Alarm Level Triggers (including reasons if changes to such are proposed, for example as a result of detailed design, recommendations in the building condition surveys or data obtained from pre-dewatering monitoring).

    f. Details of the contingency actions to be implemented if Alert or Alarm Levels are exceeded.

55. All construction, dewatering, monitoring and contingency actions must be carried out in accordance with the approved GSMCP. No Bulk Excavation (that may affect groundwater levels) or other dewatering activities must commence until the GSMCP is approved in writing by the Council.

Pre-Construction Phase Dewatering Building or Structure Surveys

56. No more than six months prior to the Commencement of Construction Phase Dewatering, a detailed condition survey of buildings or structures as specified in Schedule B below or as confirmed in Schedule B of the approved GSCMP must be undertaken by a SQEP or SQBS, and a written report must be prepared and reviewed by the SQEP responsible for overviewing the monitoring. The report must be submitted for approval by the Council upon request (subject to landowner approval).

    The detailed condition survey must include:

    a. confirmation of the installation of building deformation stations as required in Schedule B below in the locations shown on the plan titled "CS0 CC9 Keith Hay Park – Proposed Instrumentation Plan and Settlement Contour", prepared by Tonkin & Taylor, dated November 2021 – Figures 1a to 1d, Rev 0 or as confirmed in Schedule B of the approved GSCMP;

    b. a description of the type of foundations;

    c. a description of existing levels of Damage considered to be of an aesthetic or superficial nature;

    d. a description of existing levels of Damage considered to affect the serviceability of the building where visually apparent without recourse to intrusive or destructive investigation;

    e. an assessment as to whether existing Damage may or may not be associated with actual structural Damage and an assessment of the susceptibility of buildings/structures to further movement and Damage;

    f. photographic evidence of existing observable Damage;

    g. a review of proposed Alarm and Alert Levels to confirm they are appropriately set and confirmation that any ground settlement less than the Alarm Level will not cause Damage;

    h. an assessment of whether the monitoring frequency is appropriate;

    i. an assessment of whether the locations and density of existing building deformation stations are adequate and appropriate for the effective detection of change to building and structure condition.

j.

Schedule B: Buildings or Structures that require Detailed Condition Surveys and Installation of Deformation Stations		
Address	**Detailed Condition Survey Required**	**Number of building deformation stations required**
53 Arundel Street – Changing room Building in Keith Hay Park	Yes	4
668 Richardson Road – Hillsborough Kindergarten	Yes	4
670 Richardson Road – Hay Park School Building	Yes	Nil
13 Noton Road – Eden Roskill Cricket Club Building	Yes	Nil

Advice Note:

Schedule B must be updated based on detailed design and confirmed in the approved GSCMP.

This condition does not apply where written evidence is provided to the Council that the owner of a property has confirmed they do not require a detailed condition survey.

Pre-Construction Phase Dewatering Services Condition Survey

57. Prior to the Commencement of Construction Phase Dewatering, a condition survey of potentially affected stormwater and wastewater services must be undertaken in consultation with the relevant service provider.

Advice Note:

This condition does not apply to any service where written evidence is provided to the Council that the owner of that service has confirmed they do not require a condition survey.

If condition surveys are required, a letter to the Council's Compliance Officer to identify potentially affected stormwater and wastewater services and the processes in place to manage these must be sufficient to demonstrate compliance with this condition.

External Visual Inspections during Construction Phase Dewatering

58. External visual inspections of the surrounding ground and neighbouring buildings and structures must be undertaken for the purpose of detecting any new external Damage or

deterioration of existing external Damage. Inspections are to be carried out every two weeks (or as modified by the approved GSMCP) from the Commencement to Completion of Construction Phase Dewatering. A photographic record is to be kept, including time and date, of each inspection and all observations made during the inspection, and should be of a quality that is fit for purpose.

The results of the external visual inspections and an assessment of the results are to be reviewed by the SQEP responsible for overviewing the monitoring and included in three monthly (or as modified by the approved GSMCP) monitoring report for the relevant monitoring period.

Advice Note:

This condition does not apply to any land, building or structure where written evidence is provided to the Council confirming that the owner of the land, building or structure does not require visual inspections to be carried out.

Completion of Construction Phase Dewatering - Building, Structure and Services Condition Surveys

59. Between six and twelve months after Completion of Construction Phase Dewatering, a detailed condition survey of all previously surveyed buildings, structures, stormwater and wastewater Services must be undertaken by a SQEP or SQBS and a written report must be prepared. The report is to be reviewed by the SQEP responsible for overviewing the monitoring and submitted to the Council (subject to landowner approval) upon request.

The condition survey report must make specific comment on those matters identified in the pre-Construction Phase Dewatering condition survey. It must also identify any new Damage that has occurred since the pre-Construction Phase Dewatering condition survey was undertaken and provide an assessment of the likely cause of any such Damage.

Advice Note:

This condition does not apply to any building, structure or Service where written evidence is provided to the Council confirming that the owner of that building, structure, or Service does not require a condition survey to be undertaken.

Additional Surveys

60. Additional condition surveys of any building, structure or Service must be undertaken if requested by the Council for the purpose of investigating any Damage potentially caused by ground movement resulting from Construction Phase Dewatering or deflection of temporary retaining walls. A written report of the results of the survey must be prepared by a SQEP and must be submitted to the Council within one week of completion of the survey.

The requirement for any such additional condition survey will cease six months after the Completion of Construction Phase Dewatering unless ground settlement or building deformation monitoring indicates movement is still occurring at a level that may result in

Damage to buildings, structures, or Services. In such circumstances the period where additional condition surveys may be required will be extended until monitoring shows that movement has stabilised and the risk of Damage to buildings, structures and Services as a result of the dewatering is no longer present.

Groundwater Monitoring

61. Groundwater monitoring is to be undertaken at the groundwater monitoring bore locations shown on the plans titled "CS0 CC9 Keith Hay Park – Proposed Instrumentation Plan and Settlement Contour", prepared by Tonkin & Taylor, dated November 2021 – Figures 1a to 1d, Rev 0, or in the approved GSMCP. Groundwater level monitoring is to be undertaken in accordance with Schedule C below, or as modified by the approved GSMCP

Schedule C: Groundwater Monitoring Frequency					
Bore Name	**Location**		**Groundwater level monitoring frequency (to an accuracy of 10mm)**		
	East (mE)	North (mN)	From bore construction until one month before Commencement of Construction Phase Dewatering	One month before Commencement of Construction Phase Dewatering to Completion of Construction Phase Dewatering	From Completion of Construction Phase Dewatering until 3 months later
TBC - In car park for Hillsborough Kindergarten	TBC	TBC	One baseline reading two months prior to Commencement of Construction Phase Dewatering. Minimum of two baseline readings in the month prior to Commencement of Construction Phase Dewatering.	**Weekly** where: Excavation for trench, manholes or tunnel is within 50m of existing buildings/structures . **Fortnightly** where: Excavation for trench, manholes or tunnel is between 50m and 100m from existing buildings/structures .	Monthly for three months
TBC In car park for Eden Roskill Cricket Club	TBC	TBC			
TBC - Southern end of car park at Cameron Pool & Leisure Centre	TBC	TBC			

TBC Northern end of car park at Cameron Pool & Leisure Centre	TBC	TBC		**Monthly** where: Excavation for trench, manholes or tunnel is more than 100m from existing buildings/structures .	

The monitoring frequency may be changed if approved by the Council. Any change must be specified in the GSMCP. In addition, the three-month monitoring period post Completion of Construction Phase Dewatering may be extended, by the Council, if measured groundwater levels are not consistent with inferred seasonal trends or predicted groundwater movement.

Advice Note:

If groundwater level measurements show an inconsistent pattern immediately prior to the Commencement of Construction Phase Dewatering (for example varying more than +/- 200mm during a month), then further readings may be required to ensure that an accurate groundwater level baseline is established before Construction Phase dewatering commences.

Ground Surface and Building Deformation Monitoring

62. Ground Surface and Building Deformation Monitoring Stations must be established and maintained at the approximate locations shown on the plans titled "CS0 CC9 Keith Hay Park – Proposed Instrumentation Plan and Settlement Contour", prepared by Tonkin & Taylor, dated November 2021 – Figures 1a to 1d, Rev0 or in the approved GSMCP. The Monitoring Stations will be monitored at the frequency set out in Schedule D. The purpose of the Monitoring Stations is to record any vertical or horizontal movement. Benchmark positions must be established no less than 20m away from the excavated area.

Schedule D: Ground Surface and Building Monitoring			
Monitoring Station and type*	**Frequency**		
	Pre-Commencement of Construction Phase Dewatering	**Commencement to Completion of Construction Phase Dewatering**	**Post- Completion of Construction Phase Dewatering**
Ground: e.g. 23 Points *Buildings:*	A minimum of 2 baseline readings within 1 month prior to commencement to a horizontal and vertical	**Daily** where: Excavation for trench, manholes or tunnel is within 20m of existing	Monthly for 3 months

e.g., 8 Points	accuracy of +/-2mm (achieved by precise levelling)	buildings/structures **Weekly** where: Excavation for trench, manholes or tunnel is within 50m of existing/ buildings/structures. **Fortnightly** where: Excavation for trench, manholes or tunnel is between 50m and 100m from existing buildings/structures. **Monthly** where: Excavation for trench, manholes or tunnel is more than 100m from existing buildings/ structures.	

Note: *Consideration must be given to embedded column type ground settlement marker where possible for improved accuracy. For instance, where tree roots or construction traffic may affect settlement.

The monitoring frequency may be changed, if approved by the Council.

Access to Third Party Property

63. Where any monitoring, inspection or condition survey in this consent requires access to property/ies owned by a third party, and access is declined or subject to what the consent holder considers to be unreasonable terms, the consent holder must provide a report to the Council prepared by a SQEP identifying an alternative monitoring programme. The report must describe how the monitoring will provide sufficient early detection of deformation to enable measures to be implemented to prevent Damage to buildings, structures or Services. Written approval from the Council must be obtained before an alternative monitoring option is implemented.

Contingency Actions

64. If the consent holder becomes aware of any Damage to buildings, structures or Services potentially caused wholly, or in part, by the exercise of this consent, the consent holder must:

a. notify the Council and the asset owner within two working days of the consent holder becoming aware of the Damage.

b. provide a report prepared by a SQEP (engaged by the consent holder at their cost) that describes the Damage; identifies the cause of the Damage; identifies methods to remedy and/or mitigate the Damage that has been caused; identifies the potential for further Damage to occur, and describes actions that will be taken to avoid further Damage.

c. provide a copy of the report prepared under b. above, to the Council and the asset owner within 10 working days of notification under a. above.

Advice Note:

It is anticipated the consent holder will seek the permission of the damaged asset to access the property and asset to enable the inspection/investigation. It is understood that if access is denied the report will be of limited extent.

Building, Structure, and Services Surveys and Inspections

65. If requested by Council, a copy of all Pre-Construction Phase Dewatering building, structure condition surveys, and Service condition surveys must be submitted (subject to landowner approval) to the Council with the GSMCP. All other condition surveys and photographic records required by this Consent must be provided to the Council upon request (subject to landowner approval).

Reporting of Monitoring Data

66. At three monthly intervals (or as modified by the approved GSMCP), a report containing all monitoring data required by conditions of this consent must be submitted to the Council. This report must include a construction progress timeline, the monitoring data (including the results of condition surveys [depending on landowner approval]) recorded in that period, and a comparison of that data with previously recorded data and with the Alert and Alarm Levels for each Monitoring Station.

Notice of Completion

67. The Council must be advised in writing within 10 working days of when excavation and dewatering has been completed.

Advice Note:

The consent holder is advised that the discharge of pumped groundwater to a stormwater system or waterbody will need to comply with any other regulations, bylaws or discharge rules that may apply.

Advice Notes

1. Any reference to number of days within this decision refers to working days as defined in s2 of the RMA.

2. For the purpose of compliance with the conditions of consent, “the council” refers to the council’s monitoring inspector unless otherwise specified. Please email monitoring@aucklandcouncil.govt.nz to identify your allocated officer.

3. For more information on the resource consent process with Auckland Council see the council’s website www.aucklandcouncil.govt.nz. General information on resource consents, including making an application to vary or cancel consent conditions can be found on the Ministry for the Environment’s website: www.mfe.govt.nz.

4. The consent holder is responsible for obtaining all other necessary consents, permits, and licences, including those under the Building Act 2004 and the Heritage New Zealand Pouhere Taonga Act 2014. A Carriageway Access Request may also be required from Auckland Transport as well as Engineering Approval for any works that affect public stormwater. This consent does not remove the need to comply with all other current and applicable Acts (including the Property Law Act 2007 and the Health and Safety at Work Act 2015), regulations, relevant Bylaws, and rules of law. This consent does not constitute building consent approval. Please check whether a building consent is required under the Building Act 2004.

5. If you disagree with any of the above conditions or disagree with the additional charges relating to the processing of the application, you have a right of objection pursuant to sections 357A or 357B of the RMA. Any objection must be made in writing to Council within 15 working days of notification of the decision.

Delegated decision maker:

Name: Colin Hopkins

Title: Principal Project Lead

Premium Resource Consents

Signed: 

Date: 31 August 2023