

**NZ Steel – Glenbrook Steel Mill Replacement Consent Application -  
Water**

**Appendix F - Activity Standards Assessment**

## 1 Commentary on permitted and controlled activity standards

Activity	Rule	Standard	Status	Comment
<b>Diversion and discharge of stormwater runoff (RMA sections 14 and 15)</b>				
Diversion and discharge of stormwater from existing lawfully established impervious surfaces into water (North Drain, Ruakohua and Kahawai Streams) and from the Northside and Southside Outfalls into the CMA.  As set out in Table 6.2 of the AEE report, the contaminant (quality) component of these stormwater discharges is addressed by the rules in E33.	<b>E8.4.1(A3)</b> Diversion and discharge of stormwater runoff from lawfully established impervious areas as of 30 September 2013 not directed to a stormwater network or a combined sewer network that complies with Standard E8.6.1 and Standard E8.6.2.2	E8.6.1.(1) The design of the proposed stormwater management device(s) must be consistent with any relevant precinct plan that addresses or addressed stormwater matters.	N/A	Not applicable – the Glenbrook Steel Mill precinct (I415) does not address stormwater matters.
		E8.6.1.(2) The diversion and discharge must not cause or increase scouring or erosion at the point of discharge or downstream.	Complies	All diversions and points of discharge are existing, and visual inspection has demonstrated that erosion and scouring is not occurring.
		E8.6.1.(3) The diversion and discharge must not result in or increase the following: (a) flooding of other properties in rainfall events up to the 10 per cent annual exceedance probability (AEP); or (b) inundation of buildings on other properties in events up to the 1 per cent annual exceedance probability (AEP).	Complies	The diversions and discharges are existing, and no changes are proposed. The topography of the site means water flows towards the coast therefore there are no properties downstream from the diversion and discharges. This combined with the extent of NZ Steel landholdings means the diversion and discharges will not result in, or increase, effects on other properties (including flooding and inundation of buildings).
		E8.6.1.(4) The diversion and discharge must not cause or increase nuisance or damage to other properties	Complies	The diversions and discharges are existing, and no changes are proposed. The topography of the site means water flows towards the coast therefore there are no properties downstream from the diversion and discharges. This combined with the extent of NZ

Activity	Rule	Standard	Status	Comment
				Steel landholdings means the diversions and discharges will not cause or increase nuisance or damage to other properties. There is no history of complaints regarding water discharges causing damage or nuisance to other properties despite the long duration of operations and effective complaint register management.
		E8.6.1.(5) The diversion and discharge of stormwater runoff must not give rise to the following in any surface water or coastal water: (a) the production of 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; or (e) any significant adverse effects on aquatic life.	N/A	Not applicable – the quality component of the stormwater discharges is addressed by the rules in E33. See Table 6.2 of the AEE for explanation of the discharge rules. Notwithstanding this, the Proposal complies with this standard (see discussion on section 107 of the RMA provided at Section 9.7 of the AEE).
		E8.6.1.(6) Where the diversion and discharge is to ground soakage, groundwater recharge or peat soil areas any existing requirements for ground soakage, including devices to manage discharges or soakage, must be complied with.	N/A	Not applicable – Stormwater is diverted and discharged into stormwater ponds and ultimately discharged to CMA.
		E8.6.2.2(1) As a result of a new land use activity, a change in land use or the removal of existing stormwater management measures, stormwater flows and volumes from the existing impervious areas must not be increased above those that would result from lawfully established impervious areas existing as of 30 September 2013.	N/A	Not applicable – There are no new land use activities or any changes to land use activities nor any change to impervious area, therefore no change in volume or flows is expected. There is no removal of

Activity	Rule	Standard	Status	Comment
				stormwater management devices proposed.
		E8.6.2.2 (2) As a result of a new land use activity, a change in land use or the removal of existing stormwater treatment measures the concentration and load of contaminants in stormwater flows from existing impervious areas must not be increased above those that would result from lawfully established impervious areas existing as of 30 September 2013.	N/A	Not applicable – There are no new land use activities or any changes to land use activities nor any change to impervious area, therefore no change resulting in an increase in contaminant loads or concentrations. No removal of stormwater devices is proposed. The discharge of contaminants is dealt with under E33.
		E8.6.2.2 (3) Any road ancillary area must not be used for: (a) storage of roading and building materials that are not inert for more than 30 days continuously; or (b) works / building yards.	N/A	Not applicable – There are no public roads relevant to the Proposal.
		E8.6.2.2(4) Any existing stormwater management devices must not be reduced, and the location of the discharge must not change.	Complies	There will be no reduction to stormwater management devices or change in location of stormwater discharges.
<b>Other discharges to the CMA (RMA section 15)</b>				
Discharge of the water component (quantity) of process water from the Northside and Southside outfalls into the CMA. As set out in Table 6.2 of the AEE report, the contaminant (quality) component of these	<b>F2.19.7 (A62)</b> “Discharges into the coastal marine area, which are not covered by another rule in the Unitary Plan and not covered by the Resource Management (Marine Pollution) Regulations 1998” are a permitted activity, provided the standards in F2.21.1 (all permitted	F2.21.1. All permitted activities, controlled activities and restricted discretionary activities. All activities listed as permitted activities, controlled activities or restricted discretionary activities in Table F2.19.1 to F2.19.10 must comply with the following standards unless otherwise specified. (1) Structures and works must not cause a hazard to safe navigation. (2) Any excess building material, spoil, construction equipment or litter must be removed from the coastal marine area within 24 hours of completion of any works.	N/A	Not applicable – these standards relate to structures and construction, not to discharges.

Activity	Rule	Standard	Status	Comment
discharges is addressed by the rules in E33.	activities) and F2.21.8 (discharges) are met.	<p>(3) Any visible disturbance to the substrate of the coastal marine area must be remedied or restored within 48 hours of the completion of the works in areas identified in the D11 Outstanding Natural Character Overlay, D10 Outstanding Natural Features Overlay and D9 Significant Ecological Area Overlay – Marine 1 and within seven days in other areas of the coastal marine area.</p> <p>(4) Written advice must be given to the Council at least 10 working days prior to the work starting unless otherwise specified</p>		
		<p>F2.21.1.1. Noise and vibration</p> <p>(1) Interface with other zones: (a) activities in the coastal marine area must not exceed the relevant levels specified E25 Noise and vibration.</p>	N/A	Not applicable - there is no noise or vibration associated with the discharges.
		<p>F2.21.1.2. Lighting</p> <p>(1) Lighting in the coastal marine area must not exceed the levels specified in E24 Lighting.</p> <p>(2) Outdoor artificial lighting must not produce an illuminance exceeding 150 lux measured horizontally or vertically at the exterior of any building adjacent to the coastal marine area.</p> <p>(3) Lighting sources must be sited, directed and screened to minimise, as far as practicable, annoyance or nuisance to adjacent properties or the bird life of any adjacent sites within the D9 Significant Ecological Areas Overlay – Marine 1 or 2.</p> <p>(4) Lighting sources must be sited, directed and screened to avoid, as far as practicable, creating a navigation safety hazard.</p>	N/A	Not applicable – No lighting of the outfall structures is existing or proposed.
		<p>F2.21.1.3. Storage or handling of hazardous substances</p>	N/A	Not applicable – No storage or handling of hazardous substances will occur within the CMA.

Activity	Rule	Standard	Status	Comment
		(1) Any activity involving the storage or handling of hazardous substances must comply with E31 Hazardous substances		
		F2.21.1.4.(1) – (3) Accidental discovery [not replicated here]	N/A	Not applicable – No land disturbance works are proposed.
		F2.21.8.1. All permitted activities (other than discharges from firefighting and other emergency response activities undertaken by the New Zealand Fire Service) (1) The discharge must not, after reasonable mixing, give rise to any or all of the following effects: (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 water in the coastal marine area; (c) any emission of objectionable odour; and (d) any significant adverse effects on aquatic life.	N/A	Not applicable – The quality of the discharges is dealt with under E33.
		<i>F2.21.8.6. Discharges into the coastal marine area which are not covered by another rule in this Unitary Plan, and not covered by the Resource Management (Marine Pollution) Regulations 1998</i> (1) The discharge must not contain human sewage or hazardous substances as defined by the Hazardous Substances and New Organisms Act 1996 and any regulations made under section 75 of that Act.	N/A	Not applicable – the quality of the discharges is dealt with under E33.
		(2) The discharge must not change the natural temperature of the receiving water, after reasonable mixing, by more than 3 degrees celsius.	N/A	Not applicable – the quality of the discharges is dealt with under E33.
		(3) The discharge must not involve any visible disturbance to the substrate of the coastal marine area that cannot be remedied or restored within 48 hours in D11 Outstanding	Complies	There is no visible disturbance to substrate of the CMA as a result of the discharges of process water.

Activity	Rule	Standard	Status	Comment
		Natural Character Overlay, D10 Outstanding Natural Features Overlay and D9 Significant Ecological Area Overlay – Marine 1 areas and within seven days in other areas of the coastal marine area.		Appropriate scour protection is in place.
		(4) Public access to and along the coast must not be restricted by the volume or movement of the discharge.	Complies	Complies – the volume and movement of the discharge does not restrict public access to and along the coast. Rather, public access between the Steel Mill and the coast is not enabled due to reasons of public health and safety. The public is unlikely to access along the coast in the vicinity of the Northside and Southside Outfall structures due to the presence of natural features such as mangroves, large trees and cliffs.
<b>Use of land for an Industrial or Trade Activity (RMA section 9(2))</b>				
Use of land (Glenbrook Steel Mill site) for an industrial or trade activity	<b>E33.4.1(A7)</b> “Use of land for an existing industrial or trade activity listed as high risk in Table E33.4.3 (after the Table E33.4.1 timeframe expires)” is a controlled activity provided the standards in E33.6.2.1 are met.	E33.6.2. Controlled Activities E33.6.2.1. Use of land for an industrial or trade activity. Activities listed as a controlled activity in Table E33.4.1 must comply with the following standard.  (1) The activity must comply with ‘Use of land for an industrial or trade activity’ permitted activity standards E33.6.1.1(1) to E33.6.1.1(12).  E33.6.1.1(1) Wastewater and washwater produced by industrial or trade activities must be disposed of on-site via the sanitary sewer, subject to approval from Watercare, or it must be collected, either for recycling or disposal, to a system or facility with all the appropriate	<b>Does not comply</b>	All process water is collected and treated through on-site <sup>1</sup> treatment plants prior to discharge. Discharges from the treatment plants are then discharged via the on-site treatment including the Northside Ponds and the Southside Ponds.

<sup>1</sup> NZ Steel owned and operated wastewater treatment plants (WWTPs)

Activity	Rule	Standard	Status	Comment
		<p>authorisations to accept wastewater of that type. For the purposes of this rule, wastewater or washwater also includes:</p> <p>(a) boiler blow down and condensate;</p> <p>(b) all waste liquids generated or collected as part of an industrial or trade activity;</p> <p>(c) cooling tower water excluding vapour; and</p> <p>(d) condensate from air compressors.</p>		
		<p>E33.6.1.1(2) A spill response plan is prepared where any environmentally hazardous substance is handled, used or stored on land at a quantity greater than used for domestic purposes. These plans must meet the requirements of Table E33.9.1 as relevant and be supplied to the Council on request.</p>	Complies	<p>NZ Steel has a procedure for the handling, use and storage of environmentally hazardous substances (including spill response) which meets the requirements of Table E33.9.1. NZ Steel has Emergency Response Plans that include large spills of hazardous substances and a specialised response team is available to assist (Site Emergency Service Offices). For small localised spills, operational personnel have spill response material available close to the location of storage or use. Fire and Spill Response Plans cover the large volume substances stored and used on Site. This will be outlined in the WQMP.</p>
		<p>E33.6.1.1(3) For environmentally hazardous substances in quantities covered by Part 4 of the Hazardous Substances (Emergency Management) Regulations 2001, a spill response plan prepared in accordance with those regulations will be considered to comply with Standard</p>	Complies	<p>NZ Steel has a procedure for the handling, use and storage of environmentally hazardous substances (including spill response) which meets the requirements of Table E33.9.1. NZ Steel has</p>



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		E33.6.1.1(2) provided the emergency spill response plan also explicitly addresses matters (vi) to (x) in Table E33.9.1.		Emergency Response Plans that include large spills of hazardous substances, and a specialised response team is available to assist (Site Emergency Service Offices). For small, localised spills operational personnel have spill response material available close to the location of storage or use. Fire and Spill Response Plans cover the large volume substances stored and used on Site. This will be outlined in the WQMP.
		E33.6.1.1(4) For environmentally hazardous substances not covered by Part 4 of the Hazardous Substances (Emergency Management) Regulations 2001, a spill response plan prepared in accordance with Council's factsheet 'Being Prepared for a Spill' will be considered to comply with Standard E33.6.1.1(2).	Complies	NZ Steel has a procedure for the handling, use and storage of hazardous substances not covered by Part 4 of the Hazardous Substances (Emergency Management) Regulations 2001 which meets the requirements of Table E33.9.1. NZ Steel has Emergency Response Plans that include large spills of hazardous substances, and a specialised response team is available to assist (Site Emergency Service Offices). For small, localised spills operational personnel have spill response material available close to the location of storage or use. Fire and Spill Response Plans cover the large volume substances stored and used on Site. This will be outlined in the WQMP.

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		<p>E33.6.1.1(5) When the quantity of environmentally hazardous substances stored above the ground exceeds that used for domestic purposes, it must be stored:</p> <p>(a) in a container and in a manner that prevents the entry of rainwater into the container; and</p> <p>(b) within a secondary containment device or within a containment system that is constructed of impervious materials that are resistant to chemical attack from the substances contained therein.</p>	Complies	<p>NZ Steel has a procedure for the use and storage of hazardous substances which includes requirements for closed containers and bunding of hazardous substances. Location Test Certificates and Tank Certificates are audited by a third party as required by the regulations, and the Site is regularly audited for inappropriate storage e.g., waste oil drums, delivery locations.</p>
		<p>E33.6.1.1(6) For environmentally hazardous substances in quantities covered by Part 4 of the Hazardous Substances (Emergency Management) Regulations 2001, storage requirements in accordance with those regulations will be considered to comply with Standard E33.6.1.1(5).</p>	Complies	<p>Hazardous substances in quantities covered by Part 4 of the Hazardous Substances (Emergency Management) Regulations 2001 comply with the storage requirements of those regulations. Location Test Certificates and Tank Certificates are audited by a third party as required by the regulations, and the site is regularly audited for inappropriate storage e.g., waste oil drums, delivery locations.</p>
		<p>E33.6.1.1(7) For environmentally hazardous substances not covered by Part 4 of the Hazardous Substances (Emergency Management) Regulations 2001, storage requirements in accordance with council's factsheet 'Above Ground Storage' noting the following bund sizing criteria for secondary stage storage, will be considered to comply with Standard E33.6.1.1(5) where:</p> <p>(a) for tanks the bund has a storage capacity of at least 110 per cent of the capacity of the largest tank taking into</p>	Complies	<p>NZ Steel has a Hazardous Substance management procedure that covers all hazardous substances at the site. The procedure covers all activities and staff including contractors working on the Site. Hazardous substances stored across the Site are recorded in an inventory.</p>

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		<p>account the volume displaced by any equipment and/or materials stored within the bund;</p> <p>and</p> <p>(b) for drums the bund has an effective storage height of at least 100mm, allowing for any sloping ground, and the bund is set back from the drums by a distance equal to half the height of the stacked or stored drums.</p>		<p>The procedure includes requirements for bunding of hazardous substances that meet these requirements.</p>
		<p>E33.6.1.1(8) All secondary containment devices must be designed, constructed and managed so that uncontaminated rainwater and stormwater runoff is prevented from flowing into the contained area.</p>	Complies	<p>NZ Steel has a procedure for the use and storage of hazardous substances which includes requirements for bunding of hazardous substances.</p> <p>The hazardous substances procedures include regular inspection of bunds exposed to rainwater to empty these out when clean and properly dispose of any contaminated stormwater.</p>
		<p>E33.6.1.1(9) Weekly inspections must be undertaken and recorded to check that environmentally hazardous substances are stored and/or contained appropriately except as follows:</p> <p>(a) National Grid - monthly inspections;</p> <p>(b) electricity substations – annual inspections; and</p> <p>(c) unmanned depots or facilities - monthly inspections.</p>	<b>Does not comply</b>	<p>NZ Steel has a procedure for the use and storage of hazardous substances which includes regular inspections of storage areas. The inspections are not undertaken weekly and therefore do not meet the requirements. The current regime includes monthly inspections, but it is normal practice that any spills or bund failures identified as part of normal business to be immediately addressed. Further, the discharges from any banded areas discharge to the on-site stormwater system and therefore there is no potential for</p>

Activity	Rule	Standard	Status	Comment
				discharges directly to the receiving environment.
		E33.6.1.1(10) A regular reconciliation process must be undertaken for any environmentally hazardous substance stored in an underground storage tank that will identify any leakage or unaccounted losses of material from the tank.	N/A	N/A – there are no underground storage tanks on the site.
		E33.6.1.1(11) Any waste compactors and bins must be located and operated in such a manner that prevents leachate or waste leaking from them.	Complies	All waste bins are located to prevent leachate or waste leaking onto land where it may enter water.
		E33.6.1.1(12) All on-site vehicle re-fuelling areas must be segregated and housed under cover, and/or surrounded by a drain that drains to an appropriately designed and sized stormwater treatment and spill containment device fitted with a shut-off valve.	Complies	A vehicle re-fuelling facility is located opposite the Iron Plant. This has an oil water separator with shut off valve which can contain any spills in the refuelling area. A tank certificate is held with a third-party audit annually.
<b>Damming and diversion of surface water (RMA section 14)</b>				
The ongoing damming of water in existing ponds that are part of NZ Steel’s water treatment and discharge system. The Ruakohua Dam is already consented <sup>2</sup> .	E7.4.1 (A29) “Off-stream dams <sup>3</sup> ” are a permitted activity provided all the standards in E7.6.1.11 (damming water – all dams) and E7.6.1.12 (damming water – off-stream dams) are met.	E7.6.1.11 and E7.6.1.12	Complies	Refer to the tables in Sections 2 and 3 below, which assesses the 14 ponds that are part of NZ Steel’s water treatment and discharge system against the relevant permitted activity standards. The ponds all comply with each of the permitted activity standards. For reference, those ponds are: <ul style="list-style-type: none"> <li>• Southside Surge Pond</li> <li>• Southside Duty Pond</li> </ul>

<sup>2</sup> The Ruakohua Dam is authorised by Permit 40650 (expires 31 May 2048)

<sup>3</sup> Off-stream dam is defined as “any structure which impounds surface water but which is not located on the bed of a lake or any river or stream.”

Activity	Rule	Standard	Status	Comment
				<ul style="list-style-type: none"> <li>• Northside Ponds (North and South)</li> <li>• SRNZ ponds (East and West)</li> <li>• North (Closed) Landfill Pond</li> <li>• Dewatering Plant Pond</li> <li>• CY19 Pond</li> <li>• East Pond</li> <li>• Y56A Pond</li> <li>• Yard 31 Pond 1 and 2</li> <li>• MCY Pond</li> </ul>
<b>Diversion and discharge of surface water (RMA section 14)</b>				
The ongoing diversion of water in the North Drain (an artificial watercourse <sup>4</sup> ) and associated discharges.	E7.4.1 (A11) “The diversion of water into an artificial watercourse” is a permitted activity provided all the standards in E7.6.1.2 are met.	E7.6.1.2. Diverting surface water and the associated discharge of water  (1) The diversion of surface water and the associated discharge of water must not be located within areas identified in the Urban Lake Management Areas Overlay, the Natural Lake Management Areas Overlay, the Natural Stream Management Areas Overlay or the Wetland Management Areas Overlay.	Complies	The North Drain is not located within any of these Overlays.
		(2) The diversion of surface water and the associated discharge of water must not cause or worsen the flooding of any property in a range of flood events.	Complies	The diversion of water in the North Drain and the discharge of that water into the Lower North Stream does not cause any known flooding.

<sup>4</sup> Artificial watercourse is defined as: “Constructed watercourses that contain no natural portions from their confluence with a river or stream to their headwaters. Includes:

- canals that supply water to electricity power generation plants;
- farm drainage canals;
- irrigation canals; and
- water supply races.

Excludes:

- naturally occurring watercourses.”

Activity	Rule	Standard	Status	Comment
				Both watercourses are within NZ Steel's property.
		(3) The diversion of surface water and the associated discharge of water must not cause scouring, erosion or other instability of any land or waterbody.	Complies	The North Drain diversion channel was designed to account for scour, erosion and instability, including at its discharge point to the Lower North Stream. Visual inspection has confirmed this is not occurring.
		(4) The activity must not lower water levels in any wetland, except for wetlands designed and used for stormwater management by a network utility	Complies	The ongoing water diversion and discharge does not lower water levels in any wetland and in fact will retain current water levels in the wetlands.
		(5) The diversion must not prevent the passage of fish in waterbodies containing fish.	Complies	The diversion of water in the North Drain does not prevent the passage of fish.
		(6) The diversion must not adversely affect any lawfully established water take or use existing at the time the diversion begins.	Complies	No existing water takes or uses are affected by the ongoing diversion of water in the North Drain.
		(7) For diversions of surface water within or from an artificial watercourse or drain, the diverted water must not reduce the water quality of any downstream waterbody, including effects associated with the discharge of sediment.	<b>Does not comply</b>	The diverted water in the North Drain receives stormwater and process water from the Site and may reduce the water quality of the downstream waterbody (Lower North Stream). The Freshwater Ecological Assessment (Appendix H) concludes that the ITA stormwater discharges combined with the Dewatering Plant process water discharges would have a Low (no more than minor) overall level of effect on the freshwater ecology of the North Drain.

Activity	Rule	Standard	Status	Comment
<b>Discharge of leachate (RMA section 15)</b>				
The discharge of leachate from the closed Brookside West Landfill to the CMA from the Northside Outfall, via the Northside Ponds.	E13.4.1 (A12) “Discharges from closed landfills that do not comply with Standard E13.6.1.3 or Standard E13.6.1.4” is a controlled activity.	E13.6.2.4. Discharges from closed landfills that do not comply with Standard E13.6.1.3 or E13.6.1.4 (1) A site investigation (closed landfill) report and aftercare plan must be provided to the Council.	<b>Complies</b>	The ITA Report satisfies the requirement for the site investigation (closed landfill) report and a Closed Landfill Management Plan (CLMP) has been provided as part of the application - see <b>Appendix L</b> to the AEE.
	E13.4.1 (A13) “Discharges from aftercare activities <sup>[1]</sup> on closed landfills” is a permitted activity provided the standards in E13.6.1.4 are met.	E13.6.1.4. Discharges from aftercare activities on closed landfills (1) Discharges of contaminants to water must not exceed the 80 per cent trigger values of Table 3.4.1 Trigger values for toxicants at alternative levels of protection of the Australian and New Zealand Environment and Conservation Council Guidelines for Fresh and Marine Water Quality 2000.	<b>Does not comply</b>	Leachate is pumped to the Northside Ponds where it is mixed with process water and stormwater for treatment prior to being discharged to the CMA. Monitoring shows that the combined discharges from the Northside Outfall cannot comply with this standard.
		(2) The closed landfill cover must be reinstated to the same or better standard.	N/A	Not applicable - Landfill cover is existing, and no works are required as part of this application.

<sup>[1]</sup> Aftercare is defined as:

“Aftercare (or post-closure care) activities involve any operation, maintenance and monitoring associated with the management of closed (and closed parts of) managed fills and landfills.

Aftercare is on-going until the closed managed fill and landfill no longer poses any unacceptable risk to human health or the environment. Includes:

- groundwater and surface water management;
- leachate management;
- gas management;
- stability management;
- cover and surface vegetation maintenance;
- environmental nuisance control;
- monitoring; and
- site security and access.

Activity	Rule	Standard	Status	Comment
<b>Land use (RMA section 9(3))</b>				
The operation of the Northside and Southside Outfalls in a coastal storm inundation 1 per cent annual exceedance probability (AEP) plus 1m sea level rise area.	<b>E36.4.1 (A52)</b> “Operation, maintenance, renewal, repair and minor infrastructure upgrading, of infrastructure in areas listed in the heading above that complies with Standard E36.6.1.13” are a permitted activity.	E36.6.1.13. Operation, maintenance, renewal, repair and minor infrastructure upgrading, of infrastructure in areas listed in the heading above (in the coastal storm inundation 1 per cent annual exceedance probability (AEP) plus 1m sea level rise area)) (1) Minor infrastructure upgrading of infrastructure must comply with the following (where relevant): ...	Complies	The Proposal is for the ongoing operation of the existing Northside and Southside Outfall Structures, and no physical works or other form of ‘upgrade’ to the Outfall structures is proposed. The only standards relate to the upgrading of infrastructure and therefore do not prevent the Proposal complying with the rule.



## 2 Dams Permitted Activity Standard Assessment – Southside Surge Pond, Southside Duty Pond, Northside Ponds (North and South) and SRNZ ponds (East and West)

Standard	Southside Surge Pond	Southside Duty Pond	Northside Pond (North)	Northside Pond (South)	SRNZ Pond (East)	SRNZ Pond (West)
<b>Permitted Activity Standards: E7.6.1.12. Damming water – off-stream dams</b>						
<b>(1) The dam embankment, outlets, spillways and associated structures must be designed, constructed, operated and maintained to ensure they are structurally sound, pose no undue risk to life, property or the natural environment, and are able to perform satisfactorily under all foreseeable circumstances.</b>	Complies: <ul style="list-style-type: none"> <li>The dam was designed and constructed by engineers</li> <li>Operated and maintained by NZ Steel staff</li> <li>Undergoes an annual third-party engineering assessment to ensure it is structurally sound and meets the requirements of this standard.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>The dam was designed and constructed by engineers</li> <li>Operated and maintained by NZ Steel staff</li> <li>Undergoes an annual third-party engineering assessment to ensure it is structurally sound and meets the requirements of this standard.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>The dam was designed and constructed by engineers</li> <li>Operated and maintained by NZ Steel staff</li> <li>Undergoes an annual third-party engineering assessment to ensure it is structurally sound and meets the requirements of this standard.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>The dam was designed and constructed by engineers</li> <li>Operated and maintained by NZ Steel staff</li> <li>Undergoes an annual third-party engineering assessment to ensure it is structurally sound and meets the requirements of this standard.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>The dam was designed and constructed by engineers</li> <li>Operated and maintained by NZ Steel staff</li> <li>Undergoes an annual third-party engineering assessment to ensure it is structurally sound and meets the requirements of this standard.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>The dam was designed and constructed by engineers</li> <li>Operated and maintained by NZ Steel staff</li> <li>Undergoes an annual third-party engineering assessment to ensure it is structurally sound and meets the requirements of this standard.</li> </ul>
<b>(2) The damming of water must not result in the loss, degradation or permanent flooding of any natural wetland in a range of flood events except for wetland enhancement, maintenance or restoration.</b>	Complies: <ul style="list-style-type: none"> <li>This pond does not result in the loss, degradation or permanent flooding of any natural wetland.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>This pond does not result in the loss, degradation or permanent flooding of any natural wetland.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>This pond does not result in the loss, degradation or permanent flooding of any natural wetland.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>This pond does not result in the loss, degradation or permanent flooding of any natural wetland.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>This pond does not result in the loss, degradation or permanent flooding of any natural wetland.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>This pond does not result in the loss, degradation or permanent flooding of any natural wetland.</li> </ul>
<b>(3) The dam must not result in significant adverse effects on flows or ecology within permanent or intermittent rivers or streams.</b>	Complies: <ul style="list-style-type: none"> <li>Pond is not located in-stream.</li> <li>Designed and built to improve water quality in discharges to the environment.</li> <li>No significant adverse effects expected due to dam.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Pond is not located in-stream.</li> <li>Designed and built to improve water quality in discharges to the environment.</li> <li>No significant adverse effects expected due to dam.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Pond is not located in-stream.</li> <li>Designed and built to improve water quality in discharges to the environment.</li> <li>No significant adverse effects expected due to dam.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Pond is not located in-stream.</li> <li>Designed and built to improve water quality in discharges to the environment.</li> <li>No significant adverse effects expected due to dam.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Pond is not located in-stream.</li> <li>Designed and built to improve water quality in discharges to the environment.</li> <li>No significant adverse effects expected due to dam.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Pond is not located in-stream.</li> <li>Designed and built to improve water quality in discharges to the environment.</li> <li>No significant adverse effects expected due to dam.</li> </ul>
<b>(4) The dam structure must be no greater than 4m high when measured vertically from the downstream toe of the dam embankment to the highest point of the dam crest.</b>	Complies: <ul style="list-style-type: none"> <li>Pond depth is 1.4 m</li> <li>No dam embankment, surrounding land is flat.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Pond depth is 1.6 m</li> <li>No dam embankment, surrounding land is flat.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Pond depth is approx. 2.8 m</li> <li>Peak of crest to outlet channel base is 3.8 m</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Pond depth is approx. 2.8 m</li> <li>Peak of crest to outlet channel base is 3.8 m</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Pond depth is approx. 1.6 m</li> <li>Peak of embankment crest to land to north is approx. 2.5 m</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Pond depth is approx. 1.7 m</li> <li>Peak of embankment crest to land to west is approx. 3.5 m</li> </ul>
<b>(5) The dammed water must not adversely raise sub-surface or surface water levels or adversely impede drainage on adjacent properties.</b>	Complies: <ul style="list-style-type: none"> <li>Dam has been in place for years and no reported effects on surface water levels</li> <li>No potential effect on adjacent properties (due to distance of other properties from dam)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Dam has been in place for years and no reported effects on surface water levels</li> <li>No potential effect on adjacent properties (due to distance of other properties from dam)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Dam has been in place for years and no reported effects on surface water levels</li> <li>No potential effect on adjacent properties (due to distance of other properties from dam)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Dam has been in place for years and no reported effects on surface water levels</li> <li>No potential effect on adjacent properties (due to distance of other properties from dam)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Dam has been in place for years and no reported effects on surface water levels</li> <li>No potential effect on adjacent properties (due to distance of other properties from dam)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Dam has been in place for years and no reported effects on surface water levels</li> <li>No potential effect on adjacent properties (due to distance of other properties from dam)</li> </ul>
<b>(6) The dam must be designed, constructed, operated and maintained with a flood spillway to pass a 100-year ARI flood event without overtopping the dam crest (see note 1 and 2 below) except for as provided for in Standard E7.6.1.11(7) below.</b>	Exempt: <ul style="list-style-type: none"> <li>Stormwater/water quality management pond – refer to Standard E7.6.1.11(7) below</li> </ul>	Exempt: <ul style="list-style-type: none"> <li>Stormwater/water quality management pond – refer to Standard E7.6.1.11(7) below</li> </ul>	Exempt: <ul style="list-style-type: none"> <li>Stormwater/water quality management pond – refer to Standard E7.6.1.11(7) below</li> </ul>	Exempt: <ul style="list-style-type: none"> <li>Stormwater/water quality management pond – refer to Standard E7.6.1.11(7) below</li> </ul>	Exempt: <ul style="list-style-type: none"> <li>Stormwater/water quality management pond – refer to Standard E7.6.1.11(7) below</li> </ul>	Exempt: <ul style="list-style-type: none"> <li>Stormwater/water quality management pond – refer to Standard E7.6.1.11(7) below</li> </ul>

Standard	Southside Surge Pond	Southside Duty Pond	Northside Pond (North)	Northside Pond (South)	SRNZ Pond (East)	SRNZ Pond (West)
<b>(7) Dams for the purposes of stormwater management or flood control that are: (a) designed by a suitably qualified and experienced person; and (b) constructed, operated and maintained to pass the design flow; and (c) designed to allow for resilient failure during over-design events.</b>	Complies: (a) The dam was designed and constructed by engineers (b) Operated and maintained by NZ Steel staff, undergoes an annual third-party engineering assessment (c) Peak flows limited by upstream drainage network, no failure during 30+ years of operation	Complies: (a) The dam was designed and constructed by engineers (b) Operated and maintained by NZ Steel staff, undergoes an annual third-party engineering assessment (c) Peak flows limited by upstream drainage network, no failure during 30+ years of operation	Complies: (a) The dam was designed and constructed by engineers (b) Operated and maintained by NZ Steel staff, undergoes an annual third-party engineering assessment (c) Peak flows limited by upstream drainage network, no failure during 30+ years of operation	Complies: (a) The dam was designed and constructed by engineers (b) Operated and maintained by NZ Steel staff, undergoes an annual third-party engineering assessment (c) Peak flows limited by upstream drainage network, no failure during 30+ years of operation	Complies: (a) The dam was designed and constructed by engineers (b) Operated and maintained by NZ Steel staff, undergoes an annual third-party engineering assessment (c) Peak flows limited by upstream drainage network, no failure during 50+ years of operation	Complies: (a) The dam was designed and constructed by engineers (b) Operated and maintained by NZ Steel staff, undergoes an annual third-party engineering assessment (c) Peak flows limited by upstream drainage network, no failure during 50+ years of operation
<b>(8) All spillways and bypass arrangements must be constructed, terminated and maintained to minimise erosion, and the spillway(s) entry must be designed to remain free of debris at all times.</b>	Complies: <ul style="list-style-type: none"> <li>Does not include formal spillway, however incorporates alternative discharge/bypass pipes</li> <li>Peak flows limited by upstream network, and enough storage to prevent spilling</li> <li>No overtopping or erosion associated with pond during life-time (30+ years)</li> <li>Maintained and operated by NZ Steel staff and undergoes an annual third-party engineering assessment</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Does not include formal spillway, however incorporates alternative discharge/bypass pipes</li> <li>Peak flows limited by upstream network, and enough storage to prevent spilling</li> <li>No overtopping or erosion associated with pond during life-time (30+ years)</li> <li>Maintained and operated by NZ Steel staff and undergoes an annual third-party engineering assessment</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Does not include formal spillway, however discharges via weir and channel, which operates as a spillway</li> <li>Peak flows limited by upstream network, and excess storage available</li> <li>No failure or erosion associated with pond during life-time (30+ years)</li> <li>Maintained and operated by NZ Steel staff and undergoes an annual third-party engineering assessment</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Does not include formal spillway, however discharges via weir and channel, which operates as a spillway</li> <li>Peak flows limited by upstream network, and excess storage available</li> <li>No failure or erosion associated with pond during life-time (30+ years)</li> <li>Maintained and operated by NZ Steel staff and undergoes an annual third-party engineering assessment</li> </ul>	Complies: <ul style="list-style-type: none"> <li>The SRNZ pond (east) was constructed in 1970, and therefore has been in place around 50 years. The pond discharges via gravity over an oil boom (baffle) and then discharges through a pipe. This prevents debris from entering the pipe which could cause a blockage.</li> <li>There is no formal spillway, however during the lifetime of the pond, there has been no records of overtopping, or failure of the pond. The pond has been inspected annually by a third-party dams engineer for 25+ years.</li> </ul>	<ul style="list-style-type: none"> <li>Complies:</li> <li>The SRNZ pond (west) was constructed in 1970, and therefore has been in place around 50 years. The pond discharges via gravity over a oil boom (baffle) and then discharges through a pipe. This prevents debris from entering the pipe which could cause a blockage.</li> <li>There is no formal spillway, however during the lifetime of the pond, there has been no records of overtopping, or failure of the pond. The pond has been inspected annually by a third-party dams engineer for 25+ years.</li> </ul>
<b>(9) Trees or vegetation which could weaken the dam stability or prevent inspection of the dam embankment must not be allowed to grow on or near the embankment.</b>	Complies: <ul style="list-style-type: none"> <li>No trees adjacent to dam banks</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No trees adjacent to dam banks</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No trees adjacent to dam banks</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No trees adjacent to dam banks</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No trees adjacent to dam banks</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No trees adjacent to dam banks</li> </ul>
<b>(10) Stock must not be allowed to damage the crest and faces of the dam.</b>	Complies: <ul style="list-style-type: none"> <li>A perimeter stock-proof fence surrounds Southside Ponds</li> </ul>	Complies: <ul style="list-style-type: none"> <li>A perimeter stock-proof fence surrounds Southside Ponds</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No livestock kept in vicinity of dam</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No livestock kept in vicinity of dam</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No livestock kept in vicinity of dam</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No livestock kept in vicinity of dam</li> </ul>
<b>(11) The dam structure and spillway must be inspected at least once every 12 months and following any operation of the flood spillway. Any damage recorded at times of inspecting, or noticed at any other time, must be remedied as soon as practicable.</b>	Complies: <ul style="list-style-type: none"> <li>Annual third-party engineering assessment undertaken by external engineers</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Annual third-party engineering assessment undertaken by external engineers</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Annual third-party engineering assessment undertaken by external engineers</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Annual third-party engineering assessment undertaken by external engineers</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Annual third-party engineering assessment undertaken by external engineers</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Annual third-party engineering assessment undertaken by external engineers</li> </ul>
<b>Permitted Activity Standards: E7.6.1.12. Damming water – off-stream dams</b>						
<b>(2) Either the surface area of the impounded water must not exceed 5000 m<sup>2</sup> or the storage volume of the impounded water must not exceed 20,000 m<sup>3</sup>.</b>	Complies: <ul style="list-style-type: none"> <li>Surface area &lt; 5,000 m<sup>2</sup> (Approx. 3,500 m<sup>2</sup>)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Surface area &gt;5,000 m<sup>2</sup> (approx. 5,100 m<sup>2</sup>)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Surface area &gt;5,000 m<sup>2</sup> (approx. 5,500 m<sup>2</sup>)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Surface area &gt;5,000 m<sup>2</sup> (approx. 5,500 m<sup>2</sup>)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Surface area &lt; 5,000 m<sup>2</sup> (Approx. 3,000 m<sup>2</sup>)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Surface area &lt; 5,000 m<sup>2</sup> (Approx. 3,000 m<sup>2</sup>)</li> </ul>

Standard	Southside Surge Pond	Southside Duty Pond	Northside Pond (North)	Northside Pond (South)	SRNZ Pond (East)	SRNZ Pond (West)
	<ul style="list-style-type: none"> <li>Volume &lt; 20,000 m<sup>3</sup> (Approx. 5000 m<sup>3</sup>)</li> </ul>	<ul style="list-style-type: none"> <li>Volume &lt; 20,000 m<sup>3</sup> (Approx. 8,000 m<sup>3</sup>)</li> </ul>	<ul style="list-style-type: none"> <li>Volume &lt; 20,000 m<sup>3</sup> (Approx. 15,000 m<sup>3</sup>)</li> </ul>	<ul style="list-style-type: none"> <li>Volume &lt; 20,000 m<sup>3</sup> (Approx. 15,000 m<sup>3</sup>)</li> </ul>	<ul style="list-style-type: none"> <li>Volume &lt; 20,000 m<sup>3</sup> (Approx. 5000 m<sup>3</sup>)</li> </ul>	<ul style="list-style-type: none"> <li>Volume &lt; 20,000 m<sup>3</sup> (Approx. 5000 m<sup>3</sup>)</li> </ul>
<b>(3) The contributing catchment area of dams constructed on or after 23 October 2001 must not exceed 20 ha.</b>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Dam constructed prior to 2001</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Dam constructed prior to 2001</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Dam constructed prior to 2001</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Dam constructed prior to 2001</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Dam constructed prior to 2001</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Dam constructed prior to 2001</li> </ul>
<b>(4) The contributing catchment area of dams constructed prior to 23 October 2001 must not exceed 40ha.</b>	<p>Complies:</p> <ul style="list-style-type: none"> <li>Total catchment 41 ha, however split between the two Southside Ponds.</li> <li>Approx. 20.5 ha per pond</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>Total catchment 41 ha, however split between the two Southside Ponds.</li> <li>Approx. 20.5 ha per pond</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>Total catchment 69 ha (also includes all areas going to intermediary ponds including the SRNZ ponds), therefore each pond is less than 40 ha.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>Total catchment 69 ha (also includes all areas going to intermediary ponds including the SRNZ ponds), therefore each pond is less than 40 ha.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>Catchment area approx. 2.2 ha. Part of the total 69 ha catchment including the Northside Ponds. Each pond has a contributing catchment of less than 40 ha.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>Catchment area approx. 2.2 ha. Part of the total 69 ha catchment including the Northside Ponds. Each pond has a contributing catchment of less than 40 ha.</li> </ul>
<b>(5) For dams constructed on or after 23 October 2001, notice on the prescribed form must be received by the Council at least 15 working days before undertaking this permitted activity, unless the dam is owned or operated by a network utility operator for stormwater management purposes and the location and design of the dam is consistent with an authorised diversion and discharge stormwater consent.</b>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Dam constructed prior to 2001</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Dam constructed prior to 2001</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Dam constructed prior to 2001</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Dam constructed prior to 2001</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Dam constructed prior to 2001</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Dam constructed prior to 2001</li> </ul>
<b>(6) Dams constructed on or after the date of notification of the Unitary Plan must not be located within the 5 per cent annual exceedance probability (AEP) flood plain, except for dams owned or operated by a network utility operator for the purposes of stormwater management.</b>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Built before September 2013 (1985)</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Built before September 2013 (1985)</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Built before September 2013 (1985)</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Built before September 2013 (1985)</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Built before September 2013 (1970)</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>Built before September 2013 (1970)</li> </ul>

### 3 Dams Permitted Activity Standard Assessment – North (Closed) Landfill Pond, Dewatering Plant Pond, CY19 Pond, CY1/2 East Pond, Y56A Pond, Yard 31 Ponds 1 and 2, MCY Pond

Standard	North (Closed) Landfill Pond	Dewatering Plant Pond	CY19 Pond (includes forebay)	CY1/2 East Pond (includes forebay)	Y56A Pond (previously known as Jurie's Pond or Aggregates Pond)	Yard 31 Ponds 1 and 2	MCY Pond
<b>Permitted Activity Standards: E7.6.1.12. Damming water – off-stream dams</b>							
<b>(1) The dam embankment, outlets, spillways and associated structures must be designed, constructed, operated and maintained to ensure they are structurally sound, pose no undue risk to life, property or the natural environment, and are able to perform satisfactorily under all foreseeable circumstances.</b>	<p>Complies:</p> <ul style="list-style-type: none"> <li>This pond was installed by process engineers and overseen by NZ Steel civil engineers. Due to the age, the technical drawings are not currently available. Historically this pond received leachate from the North Landfill, however leachate no longer discharges from this closed landfill.</li> <li>This pond has been in place for over 40 years. In this time, there have been no failures of the pond. Rainfall records for 1995-2021 are available for an Auckland Council rain gauge adjacent to the Site, this indicates that a 10 year ARI event occurred in 2017, and a larger than 30 year event has taken place since 1994. Neither event resulted in failure of this pond.</li> <li>Based on the historic detail, there is no risk to life, property or the natural environment due to this pond.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>This pond was installed by process engineers and overseen by NZ Steel civil engineers. Technical schematics show that the pond was designed to provide process water treatment to comply with the consent requirements.</li> <li>This pond has been in place for over 20 years. In this time, there have been no failures of the pond. Rainfall records for 1995-2021 are available for an Auckland Council rain gauge adjacent to the site, this indicates that a 10 year ARI event occurred in 2017, and a larger than 30 year event has taken place since 1994. Neither event resulted in failure of this pond.</li> <li>Based on the historic detail, there is no risk to life, property or the natural environment due to this pond.</li> </ul>	<p>Complies</p> <ul style="list-style-type: none"> <li>This pond was designed by a civil engineer</li> <li>Operated and maintained by NZ Steel to ensure it is structurally sound and meets the requirements of this standard.</li> </ul>	<p>Complies</p> <ul style="list-style-type: none"> <li>This pond was designed by a civil engineer</li> <li>Operated and maintained by NZ Steel to ensure it is structurally sound and meets the requirements of this standard.</li> </ul>	<p>Complies</p> <ul style="list-style-type: none"> <li>This pond was designed by an engineer</li> <li>Operated and maintained by NZ Steel to ensure it is structurally sound and meets the requirements of this standard.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>These ponds were designed by civil engineers. Technical drawings of the design have been provided by NZ Steel, and these show that the pond has been designed to provide stormwater treatment, and incorporate overflow spillways to perform for foreseeable circumstances.</li> <li>This pond has been in place for around 40 years. In this time, there have been no failures of the pond. Rainfall records for 1995-2021 are available for an Auckland Council rain gauge adjacent to the site, this indicates that a 10 year ARI event occurred in 2017, and a larger than 30 year event has taken place since 1994. Neither event resulted in failure of this pond.</li> <li>Based on the historic detail, there is no risk to life, property or the natural environment due to this pond.</li> </ul>	<p>Complies</p> <ul style="list-style-type: none"> <li>This pond was designed by a civil engineer.</li> <li>Operated and maintained by NZ Steel to ensure it is structurally sound and meets the requirements of this standard.</li> </ul>
<b>(2) The damming of water must not result in the loss, degradation or permanent flooding of any natural wetland in a range of flood events except for wetland enhancement, maintenance or restoration.</b>	<p>Complies:</p> <ul style="list-style-type: none"> <li>This pond does not result in the loss, degradation or permanent flooding of any natural wetland.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>This pond does not result in the loss, degradation or permanent flooding of any natural wetland.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>This pond does not result in the loss, degradation or permanent flooding of any natural wetland.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>This pond does not result in the loss, degradation or permanent flooding of any natural wetland.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>This pond does not result in the loss, degradation or permanent flooding of any natural wetland.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>This pond does not result in the loss, degradation or permanent flooding of any natural wetland.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>This pond does not result in the loss, degradation or permanent flooding of any natural wetland.</li> </ul>
<b>(3) The dam must not result in significant adverse effects on flows or ecology within</b>	<p>Complies:</p> <ul style="list-style-type: none"> <li>Pond is not located in-stream.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>Pond is not located in-stream.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>Pond is not located in-stream.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>Pond is not located in-stream.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>Pond is not located in-stream.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>Pond is not located in-stream.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>Pond is not located in-stream.</li> </ul>

Standard	North (Closed) Landfill Pond	Dewatering Plant Pond	CY19 Pond (includes forebay)	CY1/2 East Pond (includes forebay)	Y56A Pond (previously known as Jurie's Pond or Aggregates Pond)	Yard 31 Ponds 1 and 2	MCY Pond
<b>permanent or intermittent rivers or streams.</b>	<ul style="list-style-type: none"> <li>Designed and built to improve water quality in discharges to the environment.</li> <li>No significant adverse effects expected due to dam.</li> </ul>	<ul style="list-style-type: none"> <li>Designed and built to improve water quality in discharges to the environment.</li> <li>No significant adverse effects expected due to dam.</li> </ul>	<ul style="list-style-type: none"> <li>Designed and built to improve water quality in discharges to the environment.</li> <li>No significant adverse effects expected due to dam.</li> </ul>	<ul style="list-style-type: none"> <li>Designed and built to improve water quality in discharges to the environment.</li> <li>No significant adverse effects expected due to dam.</li> </ul>	<ul style="list-style-type: none"> <li>Designed and built to improve water quality in discharges to the environment.</li> <li>No significant adverse effects expected due to dam.</li> </ul>	<ul style="list-style-type: none"> <li>Designed and built to improve water quality in discharges to the environment.</li> <li>No significant adverse effects expected due to dam.</li> </ul>	<ul style="list-style-type: none"> <li>Designed and built to improve water quality in discharges to the environment.</li> <li>No significant adverse effects expected due to dam.</li> </ul>
<b>(4) The dam structure must be no greater than 4m high when measured vertically from the downstream toe of the dam embankment to the highest point of the dam crest.</b>	Complies: <ul style="list-style-type: none"> <li>Pond depth is less than 1 m deep</li> <li>Peak of embankment crest to land to north-west and is approx. 1.0 m</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Pond depth is approx. 1.5 m</li> <li>No dam embankment, surrounding land is flat.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Pond depth is approx. 2.0 m deep</li> <li>Peak of embankment crest to receiving stream via spillway is 2.5 m</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Pond depth is approx. 2.0 m</li> <li>No dam embankment, surrounding land is flat.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Pond depth is approx. 2.0 m</li> <li>No dam embankment, surrounding land is flat.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Pond depths are less than 3.0. m</li> <li>Embankment peaks are approx. 2.2 m above receiving stream bed</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Pond depth is approx. 1.5 m</li> <li>Embankment peak is approx. 1.4 m above receiving stream bed</li> </ul>
<b>(5) The dammed water must not adversely raise sub-surface or surface water levels or adversely impede drainage on adjacent properties.</b>	Complies: <ul style="list-style-type: none"> <li>Dam has been in place for years and no reported effects on surface water levels</li> <li>No potential effect on adjacent properties (due to distance from dam)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No reported effects on surface water levels</li> <li>No potential effect on adjacent properties (due to distance from dam)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No reported effects on surface water levels</li> <li>No potential effect on adjacent properties (due to distance from dam)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No reported effects on surface water levels</li> <li>No potential effect on adjacent properties (due to distance from dam)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No reported effects on surface water levels</li> <li>No potential effect on adjacent properties (due to distance from dam)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No reported effects on surface water levels</li> <li>No potential effect on adjacent properties (due to distance from dam)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No reported effects on surface water levels</li> <li>No potential effect on adjacent properties as none downstream of dam</li> </ul>
<b>(6) The dam must be designed, constructed, operated and maintained with a flood spillway to pass a 100-year ARI flood event without overtopping the dam crest (see note 1 and 2 below) except for as provided for in Standard E7.6.1.11(7) below.</b>	Exempt: <ul style="list-style-type: none"> <li>Stormwater management pond – refer Standard E7.6.1.11(7) below</li> </ul>	Exempt: <ul style="list-style-type: none"> <li>Stormwater management pond – refer Standard E7.6.1.11(7) below</li> </ul>	Exempt: <ul style="list-style-type: none"> <li>Stormwater management pond – refer Standard E7.6.1.11(7) below</li> </ul>	Exempt: <ul style="list-style-type: none"> <li>Stormwater management pond – refer Standard E7.6.1.11(7) below</li> </ul>	Exempt: <ul style="list-style-type: none"> <li>Stormwater management pond – refer Standard E7.6.1.11(7) below</li> </ul>	Exempt: <ul style="list-style-type: none"> <li>Stormwater management pond – refer Standard E7.6.1.11(7) below</li> </ul>	Exempt: <ul style="list-style-type: none"> <li>Stormwater management pond – refer Standard E7.6.1.11(7) below</li> </ul>
<b>(7) Dams for the purposes of stormwater management or flood control that are: (a) designed by a suitably qualified and experienced person; and (b) constructed, operated and maintained to pass the design flow; and (c) designed to allow for resilient failure during over-design events.</b>	Complies: <ul style="list-style-type: none"> <li>North (Closed) Landfill Pond was designed for process water and stormwater management (water quality) by a suitably qualified engineer. It is operated and maintained by NZ Steel to pass the required flow.</li> <li>The level of design is not known; however an over-design event would result in localised ponding within the NZ Steel site only due to the distance from any watercourses.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>The Dewatering Plant Pond was designed for process water and a small area of stormwater management (water quality) by a suitably qualified engineer. It is operated and maintained by NZ Steel to pass the required flow.</li> <li>The level of design is not known; however an over-design event would result in localised ponding within the NZ Steel site and it would not enter any watercourse, due to the presence of</li> </ul>	Complies: <ul style="list-style-type: none"> <li>(a) The dam was designed and constructed by engineers</li> <li>(b) Operated and maintained by NZ Steel staff</li> <li>(c) Incorporates spillway for over-design events</li> </ul>	Complies: <ul style="list-style-type: none"> <li>East Pond was designed for stormwater management (water quality) by a suitably qualified engineer. It is operated and maintained by NZ Steel to pass the required flow.</li> <li>The level of design is not known; however an over-design event would result in localised ponding within the NZ Steel site only and it would not enter any watercourse, due to the presence of the railway embankment</li> </ul>	Complies: <ul style="list-style-type: none"> <li>Y56A Pond was designed for stormwater management (water quality) by a suitably qualified engineer. It is operated and maintained by NZ Steel to pass the required flow.</li> <li>The level of design is not known; however an over-design event would result in localised ponding within the NZ Steel site only and it would not enter any watercourse, due to the presence of the railway embankment</li> </ul>	Complies: <ul style="list-style-type: none"> <li>(a) The dams were designed and constructed by engineers</li> <li>(b) Operated and maintained by NZ Steel staff</li> <li>(c) Both incorporate spillways for over-design events</li> </ul>	Complies: <ul style="list-style-type: none"> <li>MCY Pond was designed for stormwater management (water quality) by a suitably qualified engineer. It is operated and maintained by NZ Steel to pass the required flow.</li> <li>The level of design is not known; however an over-design event would result in flow bypassing the pond as the pond crest is set at ground level</li> </ul>

Standard	North (Closed) Landfill Pond	Dewatering Plant Pond	CY19 Pond (includes forebay)	CY1/2 East Pond (includes forebay)	Y56A Pond (previously known as Jurie's Pond or Aggregates Pond)	Yard 31 Ponds 1 and 2	MCY Pond
		the railway embankment between the ponds and the North Drain.		between the ponds and the North Drain.	between the ponds and the North Drain.		
<b>(8) All spillways and bypass arrangements must be constructed, terminated and maintained to minimise erosion, and the spillway(s) entry must be designed to remain free of debris at all times.</b>	Complies: <ul style="list-style-type: none"> <li>This pond is within the Site and is designed for water quality treatment.</li> <li>This pond does not include a formal spillway; however an overdesign event would result in ponding within the Site only, and no erosion off site. This is due to the flat nature of the Site and the distance from a watercourse.</li> <li>Maintained and operated by NZ Steel staff</li> </ul>	Complies: <ul style="list-style-type: none"> <li>This pond is within Site and is designed for water quality treatment.</li> <li>This pond does not include a formal spillway; however an overdesign event would result in ponding within the Site only, and no erosion off site. This is due to the flat nature of the Site and the presence of the railway embankment between the pond and the North Drain.</li> <li>Maintained and operated by NZ Steel staff</li> </ul>	Complies: <ul style="list-style-type: none"> <li>This pond is within the Site and incorporates spillway to discharge to North Drain</li> <li>Operated and maintained by NZ Steel to prevent blockage and failure</li> </ul>	Complies: <ul style="list-style-type: none"> <li>This pond is within the Site and is designed for water quality treatment.</li> <li>This pond does not include a formal spillway; however an overdesign event would result in ponding within the Site only, and no erosion off Site. This is due to the flat nature of the Site and the presence of the railway embankment between the pond and the North Drain.</li> <li>Maintained and operated by NZ Steel staff</li> </ul>	Complies: <ul style="list-style-type: none"> <li>This pond is within the Site and is designed for water quality treatment.</li> <li>This pond does not include a formal spillway; however an overdesign event would result in ponding within the Site only, and no erosion off Site. This is due to the flat nature of the Site and the presence of the railway embankment between the pond and the North Drain.</li> <li>Maintained and operated by NZ Steel staff</li> </ul>	Complies: <ul style="list-style-type: none"> <li>These ponds are within the Site and include formal reinforced emergency spillways.</li> <li>No overtopping or erosion associated with ponds during life-time (approx. 40 years)</li> <li>Maintained and operated by NZ Steel staff</li> </ul>	Complies: <ul style="list-style-type: none"> <li>This pond is within the Site and is designed for water quality treatment.</li> <li>This pond does not include a formal spillway; however an overdesign event would result flows bypassing the pond, as the crest is set at ground level.</li> <li>Maintained and operated by NZ Steel staff</li> </ul>
<b>(9) Trees or vegetation which could weaken the dam stability or prevent inspection of the dam embankment must not be allowed to grow on or near the embankment.</b>	Complies: <ul style="list-style-type: none"> <li>No trees adjacent to dam banks</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No trees adjacent to dam banks</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No trees adjacent to dam banks</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No trees adjacent to dam banks</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No trees adjacent to dam banks</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No trees adjacent to dam banks</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No trees adjacent to dam banks</li> </ul>
<b>(10) Stock must not be allowed to damage the crest and faces of the dam.</b>	Complies: <ul style="list-style-type: none"> <li>No livestock kept in vicinity of dam</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No livestock kept in vicinity of dam</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No livestock kept in vicinity of dam</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No livestock kept in vicinity of dam</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No livestock kept in vicinity of dam</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No livestock kept in vicinity of dam</li> </ul>	Complies: <ul style="list-style-type: none"> <li>No livestock kept in vicinity of dam</li> </ul>
<b>(11) The dam structure and spillway must be inspected at least once every 12 months and following any operation of the flood spillway. Any damage recorded at times of inspecting, or noticed at any other time, must be remedied as soon as practicable.</b>	Complies: <ul style="list-style-type: none"> <li>This pond is currently maintained and inspected by NZ Steel staff, to ensure that it remains operational. The pond is monitored for water quality monthly.</li> <li>This pond has been added to the annual inspection schedule and will continue to be inspected following large rainfall events.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>This pond is currently maintained and inspected by NZ Steel staff, to ensure that it remains operational. The pond is monitored for water quality monthly.</li> <li>This pond has been added to the annual inspection schedule and will continue to be inspected following large rainfall events.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>This pond is currently maintained and inspected by NZ Steel staff, to ensure that it remains operational. The pond is monitored for water quality monthly.</li> <li>This pond has been added to the annual inspection schedule and will continue to be inspected following large rainfall events.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>This pond is currently maintained and inspected by NZ Steel staff, to ensure that it remains operational. The pond is monitored for water quality monthly.</li> <li>This pond has been added to the annual inspection schedule and will continue to be inspected following large rainfall events.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>This pond is currently maintained and inspected by NZ Steel staff, to ensure that it remains operational. The pond is monitored for water quality monthly.</li> <li>This pond has been added to the annual inspection schedule and will continue to be inspected following large rainfall events.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>These ponds are currently maintained and inspected by NZ Steel staff, to ensure that it remains operational. The ponds are monitored for water quality monthly.</li> <li>This pond has been added to the annual inspection schedule and will continue to be inspected following large rainfall events.</li> </ul>	Complies: <ul style="list-style-type: none"> <li>This pond is currently maintained and inspected by NZ Steel staff, to ensure that it remains operational. The pond is monitored for water quality monthly.</li> <li>This pond has been added to the annual inspection schedule and will continue to be inspected following large rainfall events.</li> </ul>
<ul style="list-style-type: none"> <li><b>Permitted Activity Standards: E7.6.1.12. Damming water – off-stream dams</b></li> </ul>							
<b>(2) Either the surface area of the impounded water must not exceed 5000m<sup>2</sup> or the storage volume of the</b>	Complies: <ul style="list-style-type: none"> <li>surface area &lt; 5,000 (Approx. 1,100 m<sup>2</sup>)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>surface area &lt; 5,000 (Approx. 1,500 m<sup>2</sup>)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>surface area &lt; 5,000 (Approx. 450 m<sup>2</sup>)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>surface area &lt; 5,000 (648 m<sup>2</sup>)</li> </ul>	Complies: <ul style="list-style-type: none"> <li>surface area &lt; 5,000 (approx. 140 m<sup>2</sup>)</li> </ul>	Complies:	Complies: <ul style="list-style-type: none"> <li>- surface area &lt; 5,000 (Approx. 110 m<sup>2</sup>)</li> </ul>

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<b>impounded water must not exceed 20,000m<sup>3</sup>.</b>	<ul style="list-style-type: none"> <li>• volume &lt; 20,000 (approx. 2,000 m<sup>3</sup>)</li> </ul>	<ul style="list-style-type: none"> <li>• volume &lt; 20,000 (approx. 2,500 m<sup>3</sup>)</li> </ul>	<ul style="list-style-type: none"> <li>• volume &lt; 20,000 (approx. 750 m<sup>3</sup>)</li> </ul>	<ul style="list-style-type: none"> <li>• volume &lt; 20,000 (1,310m<sup>3</sup>)</li> </ul>	<ul style="list-style-type: none"> <li>• volume &lt; 20,000 (approx. 200 m<sup>3</sup>)</li> </ul>	<ul style="list-style-type: none"> <li>• - surface areas &lt; 5,000 (approx. 1400 m<sup>2</sup> and 450m<sup>2</sup>)</li> <li>• - volumes &lt; 20,000 (approx. 2,800 m<sup>3</sup> and 870m<sup>3</sup>)</li> </ul>	<ul style="list-style-type: none"> <li>• - volume &lt; 20,000 (approx. 165 m<sup>3</sup>)</li> </ul>
<b>(3) The contributing catchment area of dams constructed on or after 23 October 2001 must not exceed 20ha.</b>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>• Dam constructed prior to 2001</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>• Dam constructed prior to 2001</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>• Catchment area 3.3 ha</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>• Catchment area 1.4 ha</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>• Catchment area 5.0 ha</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>• Dam constructed prior to 2001</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>• Catchment area 2.0 ha</li> </ul>
<b>(4) The contributing catchment area of dams constructed prior to 23 October 2001 must not exceed 40ha.</b>	<p>Complies:</p> <ul style="list-style-type: none"> <li>• Catchment area approximately 7.0ha</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>• Catchment area negligible (&lt;1.0ha)</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>• Dam constructed after 2001</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>• Dam constructed after 2001</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>• Dam constructed after 2001</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>• Catchment area 11.5ha</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>• Dam constructed after 2001</li> </ul>
<b>(5) For dams constructed on or after 23 October 2001, notice on the prescribed form must be received by the Council at least 15 working days before undertaking this permitted activity, unless the dam is owned or operated by a network utility operator for stormwater management purposes and the location and design of the dam is consistent with an authorised diversion and discharge stormwater consent.</b>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>• Dam constructed prior to 2001</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>• Dam constructed prior to 2001</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>• Existing pond. Consent replacement application is notice of continuation.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>• Existing pond. Consent replacement application is notice of continuation.</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>• Existing pond. Consent replacement application is notice of continuation.</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>• Dam constructed prior to 2001</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>• Existing pond. Consent replacement application is notice of continuation.</li> </ul>
<b>(6) Dams constructed on or after the date of notification of the Unitary Plan must not be located within the 5 per cent annual exceedance probability (AEP) flood plain, except for dams owned or operated by a network utility operator for the purposes of stormwater management.</b>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>• Built before September 2013 (1980)</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>• Built before September 2013 (1995)</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>• Built before September 2013 (2010)</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>• The East pond is located near to the North Drain, which is an artificial concrete channel, which receives flows from a small catchment. A railway embankment is located between the pond and the drain.</li> <li>• There are no detailed stormwater flood models for the site. The capacity of the North Drain and Brookside Road culvert has been assessed. The TP108 flows for the North Drain catchment,</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>• Built before September 2013 (2011)</li> </ul>	<p>Exempt:</p> <ul style="list-style-type: none"> <li>• Built before September 2013 (1980)</li> </ul>	<p>Complies:</p> <ul style="list-style-type: none"> <li>• The pond is not located within Auckland Council's 100 year ARI floodplain.</li> </ul>

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				<p>upstream of the East Pond and at Brookside Road, have been calculated using HIRDS v4 rainfall depths for the 5%, 2% and 1% AEP rainfall events. The capacity of the channel and culvert were assessed using Bentley FlowMaster and based on the as-built dimensions for the North Drain, as provided by NZ Steel. The assessment indicates that the channel has capacity for greater than the 1% AEP event, with a freeboard of 0.18m for the 1% AEP event. Therefore the East Pond is confirmed to be outside of the 5% AEP floodplain. There are no recorded events of the drain overtopping the railway embankment during the history of the site (&gt;40 years).</p>			