

DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Clutha District Council

Address: 1 Rosebank Terrace, Balclutha

To discharge landfill gases, odour, and dust to air during the continued operation, expansion, and progressive rehabilitation of the Mt Cooee Landfill.

For a term expiring 16 May 2050

Location of consent activity: Mt Cooee Landfill, Kaitangata Highway, approximately 700 metres southeast of the intersection of Kaitangata Highway and Ipswich Street, Balclutha

Legal description of consent location: Lot 1 DP 12203, Lot 2 DP 12203, Part Lot 61 DP 2254

Map Reference (NZTM2000) approximate E1350177 N4873812
site midpoint:

Conditions

Specific

1. Under section 125 of the Resource Management Act 1991, this consent lapses five years after the date of issue of the consent unless:
 - a) The consent is given effect to; or
 - b) The Consent Authority extends the period after which the consent lapses.
2. This consent is also subject to the General Conditions in Schedule 1. In the event of differences or conflict between the general conditions and the conditions of this consent, the conditions of this consent prevail.
3. There must be no odour or dust beyond the boundary of the site that is noxious, dangerous, offensive, or objectionable in the opinion of a suitably qualified and experienced enforcement officer.
4. The Consent Holder must:
 - a) Install and maintain an automatic weather station in an approved location at the landfill site that is capable of continuously and accurately monitoring and recording rainfall and wind speed and direction and electronically saving the data permanently. The weather station

must be serviced and calibrated by a suitably qualified and experienced technician at least annually to ensure accurate monitoring.

- b) Ensure that weather station data is saved for the duration of this consent.
- c) Provide data recorded by the weather station to the Consent Authority in electronic format upon request.

Odour

- 5. Effective odour control procedures shall be implemented at the site and must be included within the Landfill Management Plan.
- 6. To minimise odour emissions during handling of highly odorous wastes the following measures must be implemented:
 - a) Highly odorous loads must not be accepted if they do not have prior approval.
 - b) The moisture content of any waste must not exceed that of spadable sludge (15-20% solids).
 - c) A trench must be prepared prior to odorous waste acceptance, with lime and cover material stored adjacent to the trench.
 - d) Waste must be placed directly into the trench with at least 500 mm of soil cover applied immediately.

Dust

- 7. Effective dust control procedures must be documented in the Landfill Management Plan and be implemented at the site including, but not limited to:
 - a) Maintaining adequate water supply at the site to control dust at the working face, and to dampen down unsealed roads.
 - b) Use of a water cart and sprinkler systems as necessary.
 - c) Sealing the main vehicle access routes.
 - d) Limiting vehicle speeds to 20 km/h on unsealed roadways and working areas.
 - e) Applying gravel to unsealed roadways that are subject to regular vehicle traffic.
 - f) Applying water to unsealed surfaces, as necessary.
 - g) Regular sweeping and cleaning of sealed surfaces.
 - h) Rejection of dusty loads likely to breach Condition 3.

Landfill Gas

- 8. By 1 September 2026, and every third year thereafter (the next being by 2029), the Consent Holder must engage a Suitably Experienced Expert with appropriate experience in landfill gas abstraction and management to prepare a Landfill Gas Abstraction Report. The Landfill Gas Report must, as a minimum:
 - a) Calculate current and estimated future gas production at the landfill;
 - b) Outline the current legislative requirements for landfill gas management in New Zealand;
 - c) Summarise all odour complaints received by the Consent Holder and the Otago Regional Council.
 - d) Summarise all of the Consent Holder's observations and assessments of landfill gas and odour from the landfill;

- e) Include a detailed analysis of available information, that subsequently recommends whether collection and destruction of landfill gas is required within the three-year period covered by the report to mitigate odour beyond the boundary or otherwise meet statutory responsibilities in regard to greenhouse gases;
- f) Provides an overall concept design of the gas abstraction system that would be installed which is capable of effectively abstracting and destroying (e.g. flaring, electricity generation) the landfill gas. This system shall be designed to effectively maximise recovery of LFG and minimise odour; and
- g) Provides detailed design of any gas abstraction infrastructure that the report recommends be constructed within the next year after the due date of this report.

The Landfill Gas Report must be provided to the Consent Authority for certification in accordance with General Condition 3.

- 9. In the event that a landfill gas collection and destruction system is ultimately installed, a Landfill Gas Management Plan must be prepared and submitted to the Consent Authority for certification in accordance with General Condition 3 no less than three months prior to installing landfill gas infrastructure. The Landfill Gas Management Plan should address:
 - a) Design and construction of the landfill gas management system, including flares and generators.
 - b) Operation and maintenance of the landfill gas management system.
 - c) Procedures for landfill gas surface emission monitoring and perimeter probe monitoring.
 - d) Criteria to be followed to judge when flaring of gas will be commenced.
 - e) Procedures for removing and disposing of condensate from condensate traps.
 - f) Contingency plans to address the protection of public health and safety and the environment in the event of emergency situations such as landfill fires, or reference to a fire response plan, or in the situation of a mains power failure.
- 10. Any LFG flare that is installed on the site must be located at least 100 m from any sensitive receptor located beyond the property boundary.

Monitoring

- 11. Daily inspections of the site, including the working face, transfer station area, leachate collection sump, and site boundaries, for odour, dust, and litter must be undertaken. A record of these inspections must be kept of these inspections and provided to the Consent Authority upon request.
- 12. The concentration of methane measured at the surface of the landfill areas within intermediate or permanent final capping must not exceed 5,000 parts of methane per million parts of air (ppm) in any single location.
- 13. During the operation of the landfill, landfill gas concentrations over the surface of the landfill must be monitored at least monthly at areas of intermediate cover and final cover, with such monitoring to be undertaken with a Flame Ionisation Detector or equivalent in accordance with the Landfill Gas Fugitive Emissions Monitoring Guideline, prepared by the Environmental

Protection Authority, Victoria, Australia, February 2018 and any subsequent versions, or an alternative methodology approved in writing by the Consent Authority. Monitoring must not be undertaken immediately following heavy rainfall or during strong wind speed. During closure and aftercare phases, the monitoring can reduce to at least quarterly.

14. At all times where landfill construction works occur within 200 m of the of the dwelling curtilage of the property adjoining the eastern boundary of the site, the Consent Holder must undertake continuous particulate matter monitoring to ensure that dust is adequately managed. The Consent Holder must engage a Suitably Qualified and Experienced Air Quality Scientist to set appropriate trigger levels based on the Ministry for the Environment *Good Practice Guide for Assessing and Managing Dust* 2016 as well as appropriate responses to exceedance of trigger levels. The trigger levels and responses must be included in the Erosion and Sediment Control Plan required by General Condition 20.

Issued at Dunedin this 19th day of May 2025



Peter Christophers
Team Leader Consents

Schedule 1 – General Conditions that apply to all Consents

1. The continued operation, expansion, and progressive rehabilitation of the Mt Cooee Landfill and the construction and operation of the Transfer Station and Resource Recovery and Education Centre must be carried out in general accordance with the plans and all information submitted with the application and throughout the consenting process, all referenced by the Consent Authority as consent number RM21.668 and specified below:
 - a) Application titled *Application for Resource Consent and Assessment of Effects on the Environment: Mt Cooee Landfill, Balclutha*, revision 3.0, prepared by WSP, dated 21 June 2023, including appendices A-V;
 - b) Response, dated 22 November 2023, to further information request;
 - c) Response, dated 27 February 2024, to further information request;
 - d) Response, dated 9 April 2024, to further information request;
 - e) Response, dated 20 May 2024, to further information request;
 - f) Response, dated 27 August 2024, to further information request;
 - g) Response, dated 13 September, to further information request;
 - h) Addendum report to landscape assessment, prepared by Mike Moore, dated 15 November 2024.

If there are any inconsistencies between the above information and the conditions of this consent, the conditions of this consent prevail.

2. These resource consents and a copy of the Otago Regional Council's certified version of any management plan and design details required by these consents must be kept on site at all times, and the Consent Holder must ensure all relevant personnel are made aware of each document's contents.

Certification Process

3. The Consent Holder must follow the process set out below for any plans, documents, designs or specifications (hereafter referred to as 'documents') requiring the certification of an officer of the Consent Authority:
 - a) Documents requiring certification must be submitted to the relevant officer and to compliance@orc.govt.nz in electronic and hard copy form for certification. The certification process must be confined to confirming that the documents adequately give effect to the relevant condition(s).
 - b) Subject to (c) and (e) below, works to which the documents relate must not commence until the Consent Holder has received written certification from the relevant officer.
 - c) If the Consent Holder has not received a response from the relevant officer within 20 working days of the date of submission under (a) above, the documents must be deemed to be certified.

Advice Note: *If the Consent Authority's response is that they are not able to certify the documents the Consent Authority is expected to provide the Consent Holder with reasons and recommendations for changes to the documents in writing. they must provide the Consent Holder with reasons and recommendations for changes to the documents in writing.*

- d) The Consent Holder must consider any reasons and recommendations of the relevant officer and resubmit amended documents for certification.
- e) If the Consent Holder has not received a response from the relevant officer within 10 working days of the date of resubmission under (d) above, the documents must be deemed to be certified.
- f) If the relevant officer's response is that they are still not able to certify the resubmitted documents then the Consent Holder must nevertheless implement the resubmitted documents with a notation that certification of them has not occurred.
- g) Condition 3(f) does not apply to the detailed design of the landfill required by General Conditions 9-18. Written certification of the detailed design of the landfill must be obtained prior to its construction.
- h) Certified documents may be amended at the request of the Consent Holder at any time subject to recertification undertaken in accordance with parts (a) to (f) of this condition with references in those clauses to certification to be read as recertification.

Landfill Management Plan

- 4. The operation of the landfill and waste diversion and transfer facilities must be undertaken in accordance with a Landfill Management Plan, with the overall objective of setting out details of the practices and procedures to be adopted to achieve compliance with the conditions of resource consent.
- 5. The Landfill Management Plan must be prepared by a suitably qualified and experienced person and must address how the following matters will meet any requirements, limits, or restrictions set out by the conditions of these resource consents:
 - a) The Landfill Management Plan must, to the extent practicable, be in accordance with best industry practice.
 - b) The stages and order of landfill development, including matters to be completed prior to each stage.
 - c) Construction and testing of the lining system.
 - d) Landfill gas, leachate, groundwater and stormwater management.
 - e) Erosion and sediment controls during construction and operation.
 - f) Types of waste to be accepted and those that are prohibited.
 - g) Waste acceptance control and monitoring of the types of waste accepted, including any report as required by Condition 7 of Discharge Permit RM21.668.01.
 - h) Methods of placing and covering waste, including highly odorous and special waste, including provision for the rejection of highly odorous material that is likely to result in offensive or objectionable odours beyond the site boundary or breach Condition 3 of Discharge Permit RM21.668.02.
 - i) Management of the active landfill area and the transfer/resource recovery areas.
 - j) Fire preparedness and response management, including fire risk mitigation and readiness procedures, fire response procedures to be implemented for surface and sub-surface fires, and monitoring.
 - k) Odour and dust management.
 - l) Noise management.

- m) Litter management.
 - n) Plant and animal pest management, including bird control.
 - o) Monitoring procedures, including locations, parameters, frequency, detection limits and trigger levels.
 - p) Landfill inspections and maintenance.
 - q) Emergency management and contingency response procedures.
 - r) Complaints response procedures.
 - s) Record-keeping and reporting requirements.
 - t) Final landfill capping, post settlement height, shape and contours of the land.
 - u) Vegetation management.
 - v) Landfill closure and aftercare.
6. Within six months of the issue of these consents, the existing Landfill Management Plan must be updated to reflect the requirements, limits, or restrictions set out in the conditions of these resource consents and provided to the Consent Authority for certification in accordance with General Condition 3.
7. By 1 July each year the Consent Holder must complete a review of the Landfill Management Plan to ensure that the management practices contained within them remain adequate to ensure compliance with the conditions of these consents and continue to reflect best operational practice. If amendments are made to the Landfill Management Plan, the amended plan must be submitted to the Consent Authority for recertification in accordance with General Condition 3.
8. The Consent Holder may make amendments to the Landfill Management Plan at any time. Any amendments must be submitted to the Consent Authority for recertification in accordance with General Condition 3.

Construction and Detailed Design

9. All investigations, detailed design and supervision of construction of the landfill must be undertaken by suitably experienced Chartered Professional Engineer (CPEng).
10. At least three months prior to commencing construction of the landfill development works, including for each stage of the landfill, the Consent Holder must submit detailed design drawings which have been reviewed by an independent, suitably experienced Chartered Professional Engineer (CPEng), to the Consent Authority for certification in accordance with General Condition 3.
- a. The new landfill cells must be designed and constructed with a groundwater collection system (underdrain) beneath or around the landfill liner which is sized and configured to ensure effective sub-liner drainage, with a separate sump from the leachate collection system. Groundwater collected from the underdrain (underdrainage) must be discharged to an appropriate receiving location as specified by Condition 34 of Discharge Permit RM21.668.01.
11. The Consent Holder must ensure that the leachate collector pipes are able to be flushed.
12. Leachate conveyance and storage facilities must be sealed to minimise odour.

13. The lining system for both the base and side slopes must, as a minimum, comprise of the following lining system:
 - a) Type 2 Lining system (from top to bottom)
 - i. 300 mm layer of leachate drainage material
 - ii. Protection geotextile
 - iii. 1.5 mm HDPE geomembrane
 - iv. Geosynthetic clay liner (GCL)
 - v. 600 mm compacted soil with a coefficient of permeability $k < 1 \times 10^{-8}$ m/s.
14. The lining system for the batters which interface with the existing unlined landfill cells must, as a minimum, comprise the following lining system:
 - a) 300 mm layer of leachate drainage material
 - b) Liner protection layer
 - c) 1.5 mm HDPE geomembrane textured both sides
 - d) Geosynthetic clay liner (GCL)
 - e) 600 mm compacted soil with a coefficient of permeability $k < 1 \times 10^{-8}$ m/s
15. The Consent Holder may use an alternative lining system demonstrated to provide equivalent or better performance compared with the specified system. Any alternative lining system must be submitted for certification by the Consent Authority in accordance with General Condition 3.
16. The leachate drainage system must be designed to achieve leachate head that does not exceed 300 mm at any point on the geomembrane liner.
17. Within three months of the completion of each stage of the landfill construction works the Consent Holder must submit to the Consent Authority a completed Construction Quality Assurance Report for certification in accordance with General Condition 3. The Construction Quality Assurance Report must include as-built drawings completed by a suitably experienced Chartered Professional Engineer for each completed stage of the landfill development works.
18. Within two years of the issue of these consents, the existing leachate overflow pond must be replaced with a fully contained holding tank to prevent the discharge of leachate into the Clutha River/Mata-au during flood events. The capacity of the holding tank must be calculated by a Suitably Experienced Chartered Engineer and the design provided to the Consent Authority for certification in accordance with General Condition 3.
19. Prior to commencing any landfill construction works, the Consent Holder must engage a Suitably Qualified and Experienced Practitioner to prepare a Construction Erosion and Sediment Control Plan and provide it to the Consent Authority for review and approval. The Construction Erosion and Sediment Control Plan shall include at least the following:
 - a) Details of all principles, procedures and practices that must be implemented to undertake erosion and sediment control to minimise the potential for sediment discharge from the site, including flocculation if required;
 - b) The design criteria and dimensions of all key erosion and sediment control structures;
 - c) A site plan of a suitable scale to identify:
 - i. The locations of waterways;
 - ii. The extent of soil disturbance and any vegetation removal;
 - iii. Any “no go” and/or buffer areas to be maintained undisturbed adjacent to watercourses;
 - iv. Areas of cut and fill;



- v. Locations of topsoil stockpiles;
 - vi. All key erosion and sediment control structures;
 - vii. The boundaries and area of catchments contributing to all stormwater impoundment structures;
 - viii. The locations of all specific points of discharge to the environment; and
 - ix. Any other relevant site information .
- d) Dust control measures;
 - e) Progressive stabilisation of vegetation or equivalent means as soon as practicable;
 - f) A construction timetable for the erosion and sediment control works and the bulk earthworks proposed;
 - g) Timetable and nature of progressive site rehabilitation and re-vegetation proposed;
 - h) Maintenance, monitoring and reporting procedures;
 - i) Rainfall response and contingency measures including procedures to minimise adverse effects in the event of extreme rainfall events and/or the failure of any key erosion and sediment control structures;
 - j) Procedures and timing for review and/or amendment to the CЕСP; and
 - k) Identification and contact details of personnel responsible for the operation and maintenance of all key erosion and sediment control structures.
20. The construction of the Stage 2 Landfill must not occur within 100 m of the areas of natural inland wetland located at the southeast of the site.

Landfill Operations

21. The Consent Holder must appoint and retain an appropriately qualified and experienced person to supervise the operation of the landfill.
22. The final cap must achieve a minimum grade of 5% in all areas and incorporate drainage so as to prevent ponding of stormwater and erosion and cracking of the cap surface.
23. A walkover visual inspection of the landfill operational area must be undertaken at least monthly and immediately following storm events greater than 50% Annual Exceedance Probability (AEP), to check for:
- a) Vegetation die off;
 - b) Cracking of the final cap surface;
 - c) Subsidence and erosion;
 - d) Landfill gas leaks and odour;
 - e) Leachate break out through the cap;
 - f) Waste protruding through the cap; and
 - g) Stormwater system overflows or damage.

Any defects must be remedied by the Consent Holder as soon as practicable. A report on the inspection and details of any remedial actions must be forwarded to the Consent Authority within one month of each inspection and must be recorded in the Annual Report required by General Condition 25.

Annual Report

24. The Consent Holder must compile an annual report on the operation of the landfill, which must include as a minimum:

- a) A summary of the development of the landfill, including the status of landfilling operations on the site and work completed during the report period;
- b) Any instances of non-compliance with the conditions of these consents or difficulties in achieving the practices and procedures in the Landfill Management Plan and measures taken to address those difficulties;
- c) Construction or development activities proposed for the next year of the landfill operation;
- d) Any emergency management procedures and contingency response procedures specified in the Landfill Management Plan that were implemented during the preceding year;
- e) Collated summaries and analyses of all monitoring results and other data required under these consents, including:
 - i. The results of all leachate, groundwater, stormwater, and surface water monitoring undertaken. Results must be supplied in table format within the report, with a copy of all laboratory analytical reports appended.
 - ii. A description of the dates of monitoring and the climatic conditions on those dates, and any other pertinent field observations.
 - iii. The results of all air quality monitoring, including all field monitoring record sheets.
 - iv. Interpretation of all data, particularly with regard to landfill performance. Trends must be identified and discussed.
- f) Reporting of rainfall data, including comment on the significance of the rainfall and how it affected the landfill management that year;
- g) Reporting of measured leachate discharge from the site for the year, including monthly totals and comparison with recorded rainfall including monthly totals;
- h) A record of the quantities and types of waste accepted at the landfill, the disposal locations of special wastes, and records of load inspections; and
- i) A summary of all complaints received over the past year, and any subsequent actions taken in response to those complaints.

The report period shall be 1 July to 30 June each year. The report must be forwarded to the Consent Authority by 1 September each year unless otherwise agreed in writing with the Consent Authority.

Landfill Closure Management Plan

25. The closure and aftercare of the landfill must be undertaken in accordance with a Landfill Closure Management Plan (LCMP).
26. The Landfill Closure Management Plan must be prepared by a suitably qualified and experienced person, with an overall objective of setting out details of the practices and procedures to be adopted to achieve compliance with the conditions of these resource consents.
27. The Landfill Closure Management Plan must address how the following matters will meet any requirements, limits, or restrictions set out in the conditions of these resource consents:
 - a) The LCMP must, to the extent practicable, be in accordance with best industry practice.
 - b) Long term use of the landfill site.
 - c) Post closure landfill gas, leachate, groundwater and stormwater management.
 - d) Post closure maintenance of the landfill cap.
 - e) Post closure monitoring procedures, including locations, parameters, and frequency.
 - f) Landfill inspections and maintenance.
 - g) Emergency management and contingency response procedures.
 - h) Complaints response procedures.

- i) Record-keeping and reporting requirements.

- 28. The Landfill Closure Management Plan must be submitted to the Otago Regional Council at least 12 months prior to the final acceptance of waste at the landfill for written certification in accordance with General Condition 3.
- 29. Every three years following the final acceptance of waste at the landfill, the Consent Holder must complete a review of the certified Landfill Closure Management Plan to ensure that the management practices contained within the plan remain adequate to ensure compliance with the conditions of these consents. If amendments are made to a management plan, the amended plan must be submitted to the Otago Regional Council for written recertification in accordance with General Condition 3.

Management Plan Amendment

- 30. The Consent Holder may make amendments to the certified Landfill Management Plan or Landfill Closure Management at any time. Any amendments must be submitted to the Otago Regional Council for written recertification in accordance with General Condition 3.

Complaints

- 31. A record of all complaints received must be kept by the Consent Holder. This record must include:
 - a) The date, time, location and nature of the complaint;
 - b) The name, phone number, and address of the complainant, unless the complainant elects not to supply this information;
 - c) Where practicable, weather conditions at the time of the concern or complaint, including wind direction and cloud cover if the complaint relates to noise, dust or air quality;
 - d) Known activities occurring on site at the time and in the vicinity of the concern or complaint; and
 - e) Action taken by Consent Holder to remedy the situation and any policies or methods put in place to avoid or mitigate the problem occurring again.

Archaeological and Heritage

- 32. In the event that an unidentified archaeological site is located during works, the following will apply:
 - a) Work must cease immediately at that place and within 20 metres around the site.
 - b) All machinery must be shut down, the area must be secured, and the Heritage New Zealand Pouhere Taonga Regional Archaeologist and the Consent Authority must be notified.
 - c) If the site is of Māori origin, the Consent Holder must also notify the appropriate iwi groups or kaitiaki representative of the discovery and ensure site access to enable appropriate cultural procedures and tikanga to be undertaken, as long as all statutory requirements under legislation are met (Heritage New Zealand Pouhere Taonga Act 2014, Protected Objects Act 1975).

- d) If human remains (kōiwi tangata) are uncovered the Consent Holder must advise the Heritage New Zealand Pouhere Taonga Regional Archaeologist, NZ Police, the Consent Authority and the appropriate iwi groups or kaitiaki representative and the above process under (c) will apply. Remains are not to be disturbed or moved until such time as iwi and Heritage New Zealand Pouhere Taonga have responded.
- e) Works affecting the archaeological site and any human remains (kōiwi tangata) must not resume until Heritage New Zealand Pouhere Taonga gives written approval for work to continue. Further assessment by an archaeologist may be required.
- f) Where iwi so request, any information recorded as the result of the find such as a description of location and content, must be provided for their records.

Advice Note: Under the Heritage New Zealand Pouhere Taonga Act 2014 an archaeological site is defined as any place in New Zealand that was associated with human activity that occurred before 1900 and provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand (see Section 6). For pre-contact Māori sites this evidence may be in the form of Taonga (artefacts) such as toki (adzes) or flake tools as well as bones, shells, charcoal, stones etc. In later sites of European/Chinese origin, artefacts such as bottle glass, crockery etc. may be found, or evidence of old foundations, wells, drains or similar structures. Pre-1900 buildings are also considered archaeological sites. Burials/kōiwi tangata may be found from any historic period. Archaeological sites are legally protected under Sections 42(1) & (2) of the Heritage New Zealand Pouhere Taonga Act 2014. It is an offence under Section 87 of the Heritage New Zealand Pouhere Taonga Act 2014 to modify or destroy an archaeological site without an Authority from Heritage New Zealand Pouhere Taonga irrespective of whether the works are permitted, or a consent has been issued under the Resource Management Act 1993 or Building Act 1991.

Review

- 33. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent during the period of three months after receiving the Annual Report each year, as specified in condition 52 of this consent, for the purpose of:
 - a) Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which becomes evident after the date of commencement of the consent;
 - b) Ensuring the conditions of this consent are consistent with any National Environmental Standards, relevant regional plans, and/or the Otago Regional Policy Statement;
 - c) Reviewing the frequency of monitoring or reporting required under this consent;
 - d) Amending the monitoring programme set out in conditions;
 - e) Requiring the Consent Holder to adopt the best practicable option, in order to prevent or minimise any adverse effect on the environment arising as a result of the exercise of this consent; or
 - f) Reviewing whether the landfill gas management is appropriate, including but not limited to whether landfill gas collection and destruction should be undertaken.