

Case Officer Report

Subject: IP 0001/06/C/V1 - Application for the variation of IP 0001/24 for the conversion of an unused hazardous cell into a non-hazardous cell, including extension of cell boundary for landfilling at Għallis Non-Hazardous Landfill.

Date: 05th December 2025

To: ERA Board

From: Regulatory Affairs Directorate

1. Background

This report has been prepared for the determination of IP 0001/06/C/V1 to expand landfilling operations by converting the unused hazardous cell into a non-hazardous cell submitted by Mr. Richard Bilocca obo Wasteserv Malta Ltd. In this regard, the application was received on 10th November 2021 and final submissions were provided on 31st October 2025. Since then, IP 0001/06/C was renewed on the 15th October 2024 by virtue of application number IP 0001/24 and thus this variation application is deemed to be amending the current active permit IP 0001/24.

This application is for variation includes the following changes:

- Addition of the new non-hazardous cell referred to as 'Għallis 2' (as per Annex 1)
- Addition of Żwejra Reservoir (as per Annex 1)
- Updating of Approved Document IP 0001/24/DOC1 – to include 'Għallis 2'
- Removal of Approved Document IP 0001/24/DOC4 – incorporated into Schedule 3
- Removal of Schedule 4 of permit – incorporated into Schedule 3
- Minor amendments to permit conditions

2. Case Officer Report

2.1. Proposal

The facility is an engineered landfill utilized for non-hazardous mixed municipal and industrial waste. Currently permitted operations, and associated emission points include the following and are being retained without change, except the text in italics.

Activity listed in Schedule 1 of the Industrial Emissions (IPPC) Regulations/ Associated Operations	Description of Specified Operation	Limits of Specified Operation
Section 5.4: Landfills receiving more than 10 tonnes per day or with a total capacity exceeding 25,000 tonnes, excluding landfills of inert waste	Waste Management Operation: D1 - Tipping above or underground (e.g. landfill, etc.)	Receipt, handling, storage and disposal of non-hazardous wastes having the six-digit European Waste Catalogue codes listed in Schedule 5 of this permit (as published in Commission Decision 2000/532/EC as may be amended from time to time), subject to the net available landfill void space as specified in the Introductory Note.
Associated activity of leachate management	<i>Management and treatment of leachate accordance with Improvement Programme Item No. 23</i>	<i>From on-site leachate generation to discharge of treated effluent to sewer, subject to requirements of Water Services Corporation.</i>
Associated activity of landfill gas management	Gas extraction, collection and treatment utilising a landfill gas-powered generator (combined heat and power), regenerative thermal oxidiser or emergency flare as required.	From generation of gas to extraction and collection into a central gas management facility, on-site treatment and energy generation.

2.2. Proposed Emissions

Point sources of emissions	
Location code	Emission source
PS1	Combined Heat and Power Plant (CHP)
PS2	Regenerative Thermal Oxidizer (RTO)
PS3	Emergency flare
PS4	Emergency backup flare

PS5	Regenerative Thermal Oxidizer (RTO) backup plant
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2.3. Supporting documents recommended for approval

- IP/0001/06/C/V1 – Variation Notice document
- IP/0001/06/C/V1/DOC1 – Various layout plans for both landfills including pre- and post-settlement levels
- IP/0001/24/DOC2 – Landfill Thermography Methodology
- IP/0001/24/DOC3 – Layout plan with emission points to air

2.4. Applicable law/ policy

The proposal is to comply with:

- CAP. 549 - Environment Protection Act;
- S.L. 549.29 - Waste Management (Landfill) Regulations;
- S.L. 549.63 - Waste Regulations;
- S.L. 549.76 - Industrial Emissions (Framework) Regulations;
- S.L. 549.77 - Industrial Emissions (Integrated Pollution Prevention and Control) Regulations.

2.5. Site Description and Constraints

The facility is located in Maghtab, limits of Naxxar. The surrounding land uses include the Ecohive complex comprised of treatment facilities operated by the same applicant, other waste treatment facilities, agricultural land and residential areas. There are no constraints on site. Refer to Site Plan in Annex 1.

2.6. Site History

The following permitting history is noted on site:

Number	Title	Status
<i>IP 0001/06/A</i>	To operate a non-hazardous engineered landfill	Permit issued 05 September 2007 for a period of four (4) years
<i>IP 0001/06/B</i>	Renewal and variation of permit <i>IP 0001/06/A</i>	Permit issued 10 July 2013 for a period of four (4) years.
<i>IP 0001/06/C</i>	Renewal and variation of permit <i>IP 0001/06/B</i>	Permit granted 14 April 2020 for a period of four (4) years and extended further for 6 months on the 22 nd March 2024

<i>IP 0001/06/C/V1</i>	Variation of permit <i>IP 0001/06/C</i> for the conversion of an un-used existing hazardous cell into non-hazardous cell, including extension of cell boundary	--
<i>IP 0001/06/C/V2</i>	Variation of permit <i>IP 0001/06/C</i> for the recontouring of the Ghallis landfill to increase height and maximise void space	Permit granted 15 October 2024 for a period of ten (10) years and integrated into IP 001/24.
<i>IP 0001/24</i>	Renewal of permit <i>IP 0001/06/C</i>	Permit granted 15 October 2024 for a period of ten (10) years.
<i>PA/04834/04</i>	Development of controlled landfill and ancillary facilities.	23 February 2006
<i>PA/04252/03</i>	Development of landfill at Ghallis Ta` Gewwa.	Shelved
<i>PA/00964/11</i>	Amendments to PA 4834/04 including sanctioning of variations	Granted 31 January 2013
<i>PA/03447/14</i>	Construction of circulation road within landfills complex	Granted 20 February 2015
<i>PA/06753/17</i>	Erection of 1st floor (Class 4A, Offices) over existing Ground Floor	Granted 14 December 2017
<i>PA/01586/18</i>	To amend permit PA 964/11 and alter the internal lateral landfill profile to increase volume capacity of Ghallis non-hazardous Landfill while retaining site area.	Granted 03 July 2019
<i>PA 3144/19</i>	Proposed conversion of an un-used existing hazardous cell into non-hazardous cell, including extension of cell boundary and sanctioning of excavation.	Granted 14 April 2021
<i>PA/04602/19</i>	Extension to existing office building (Class 4a)	Granted 15 July 2020
<i>PA/04964/20</i>	To carry out alterations from approved permit PA1586/18 including sanctioning of variations to Ghallis profile from that approved in permit PA964/11, and alter the vertical height of the landfill profile to increase the volume capacity of Ghallis Non-Hazardous Landfill while retaining the site area, and	Granted 13 October 2022

	change in landscaping layout from approved drawings in PA964/11.	
PA/07018/23	Għallis Non-hazardous Landfill Profile Volume Increase	Granted 20 th February 2025

2.7. Consultations

2.7.1. Intra-ERA Feedback

It was confirmed that there were no concerns from an Environmental Impact Assessment (EIA) point of view.

Requests were made for status updates on the Improvement Programme items, which the applicant provided. The Improvement Programme has been updated to reflect the replies provided and ongoing discussions.

The provision of a Construction Quality Assurance Report which certifies that the liner layers were constructed as required was requested. This has since been provided by the applicant and indicates that the drainage layer at the base has been constructed as agreed with the Authority through the hydrological study submitted for PA 3144/19 and in line with the requirements of S.L. 549.29

Contributions by thematic units to safeguard of the surrounding environment (water, land and air) are provided regularly during discussions with the Applicant to amend the Environmental Monitoring Plan (EMP) as may be required.

2.7.2. Feedback from External consultees

Regulator for Energy and Water Services (REWS) had a minor query regarding a fuel tank which was clarified by the applicant.

Planning Authority (PA) confirmed that the documents submitted in this IPPC application were in-line with those approved in PA 3144/19.

Civil Protection Department (CPD) requested a fire safety strategy report which was provided by the applicant. CPD also provided procedural recommendations for site safety during fires. A condition was amended to address this.

Environmental Health Directorate (EHD) provided a number of general conditions related to pests and foul water. Specific conditions were also provided on the treatment of water used as a dust suppressant and odour

mitigation from leachate treatment. These were incorporated into permit conditions.

Water Services Corporation (WSC) provided comments on rainwater handling and potential fate of leachate treatment activities. The Applicant indicated that the possibility of treated effluent being disposed to sewer was being contemplated, in which case a sewer discharge permit, including its emission limit values would apply.

2.7.3. Representations from public

Public Consultation was carried out between 11th and 25th March 2023. No representations were made by the public.

2.8. Discussion

This application involves the addition of a new cell (Ghallis 2), with minimal changes to day-to-day operations already permitted. In this regard, apart from conditions on stability which are particular to Ghallis 1 (current landfill), most conditions in IP 0001/24 remain applicable for Ghallis 2. Nonetheless, minor amends are being made to the reporting requirements to facilitate the calculation of estimated emissions from landfill gas generation and energy production whilst introducing a condition to ensure the proper upkeep of the landfill gas collection system. Reporting on the accreditation status of the Environmental Management System is being introduced in order to facilitate the determination of annual fees in line with S.L. 549.77.. Drawings in Approved Document 1 are being amended to include the site and levels of Ghallis 2. Approved Document 4 and Schedule 4 of the previous permit have now been consolidated into Schedule 3 and hence are proposed for removal.

Paragraph 3.4 of Schedule 1 of SL 549.29 allows the Authority to decide that the requirements for leachate collection (specified in para 3.3) may be reduced on the basis of an environmental risk assessment provided by the Applicant. Such a hydrological study had been carried out during PA consultations, in which the Applicant had demonstrated that the drainage layer could be reduced from required 0.5m to 0.3m. Permit conditions have been amended accordingly.

With the introduction of a new cell, changes to the current leachate generation profile and volumes are expected. Leachate is a liquid that forms when water, either rainwater or water from decomposing waste, filters through a landfill. Leachate generation is typically based on the following:

- Type of waste
- Age of waste
- Quality of landfill cover;
- Compaction rates;
- Direct rain fall over the landfill;
- Lateral migration of surface water or runoff and its capacity to enter in the landfill mass;
- Evaporation.

With reference to Ghallis 2, it is expected that leachate generation shall be lower compared to Ghallis 1 since:

- the introduction of the organic (white) bag being diverted to other treatment facilities, less waste with an organic fraction is being landfilled;
- Higher compact rates are being achieved which makes the landfill mass less permeable to rainwater;
- Through adequate road design and the installation of gutters / drainage, surface water or runoff shall be diverted from the landfill;

In light of the variables mentioned above, it is not possible to accurately predict leachate generation at this stage and would be possible following a number of months of operation.

Whilst the exact volume and physico-chemical profile of leachate may vary, it is considered a polluted liquid which poses a risk to the surrounding land and groundwater. To mitigate such a risk, the landfill is lined (base and sides) with various layers to contain this leachate.

Further to collection, the Authority has requested a proposal for the treatment of leachate once it has been collected. Leachate treatment is a legal requirement (Regulation 2 of Schedule of S.L. 549.29) and has been pending submission for a number of iterations of this permit and that of the sister landfill Żwejra (IP 0003/23). Furthermore, WSC have also requested such a proposal as it is being considered that treated effluent may be disposed to sewer. The Applicant has also informed the Authority that the various logistic and legal requirements of attaining such a treatment plant have been concluded and the equipment is being constructed. The Applicant has indicated projected installation of the equipment in early 2026 with full commissioning estimated within the year. In this regard, the submission of the details of what the treatment technology shall entail is being requested as a Post Decision Requirement (previously Improvement Programme item 22) of this application, including details which will enable discussion on certain aspects to ensure compliance with applicable legislation and the necessary mitigation measures.

Other typical impacts of the landfill also include the generation of landfill gas which is being mitigated by collection and treatment via the existing gas plant. Wherein, depending on the quality (methane content), the gas may either be diverted to the Combined Heat and Power plant (energy recovery), Regenerative Thermal Oxidiser or emergency flare. Such practices are already standard procedures for the existing landfills, nonetheless in view of the uncertainty about the gas quantity and quality expected from Ghallis 2, upgrades to the existing gas collection and treatment systems might be required which are being addressed through the retention of an existing Improvement Program item.

Continuous discussions are held between ERA and the Applicant throughout the lifetime of the permit and evolution of EMP to meet the various requirements of monitoring aspects of emissions to: air, odour, noise, groundwater, surface water, sea, marine sediments and land. With particular reference to noise, since studies on the background

levels are still ongoing, the necessary updates are specifically being included as part of the related Improvement Program Item

In terms of Improvement Program items, the same requirements are being retained and updated in line with latest discussions with the operator to address pending updates to the EMP. For all the above, timeframes are being revised to align with the latest expectations on each item.

Since part of the surface run-off related to Għallis 2 is being directed to the Żwejra Reservoir, such effluent requires characterisation in order to determine its fate in an environmentally safe manner. This has been included as an Improvement Program item.

The bank guarantee value is being revised to reflect the additional risk associated with the proposed addition of the new landfill cell and the list of Improvement Programme items.

2.9. Financial Matters

Application fee	€20,800 - Paid
Financial guarantee	€3,000,000 (previously €2,113,000) (covered by the Letter of Undertaking covering Government Projects ref MF35/05/160)
Annual fee	€23,732

3. Recommendation:

The Regulatory Affairs Directorate recommends the GRANTING of the Permit for the duration of the validity of the existing permit IP 0001/24, that is until **15th October 2034**.

- a) A proposal for leachate treatment which:
 - i. Meets the criteria of Schedule 3 of S.L. 549.77
 - ii. excludes recirculation
 - iii. demonstrates how the proposed treatment capacity is able to meet the requirements of the total leachate generated from the permitted landfills at the Ecohive complex.
 - iv. describes, including with energy and mass flow diagrams, the techniques to be implemented
 - v. details of the expected concentration of pollutants of treated effluent
 - vi. details of the expected types and quantities of wastes, emissions and noise to be generated with associated abatement measures
 - vii. details of containment measures, including volumes of any pre- or post treatment storage tanks.
 - viii. details the final destination of treated effluent and wastes to be generated

The proposed permit conditions include

- b) *Standard conditions applicable to this sector ;*

- c) Site-specific conditions:
- i) *Reporting on the accreditation status of the Environmental Management System*
 - ii) *Potentially contaminated surface run-off including that from access road, and that being collected at the Żwejra Reservoir (see Annex 1) shall only be discharged to the environment upon receipt of written approval from the Authority and subject to characterisation to determine its content and environmentally safe disposal in line with Improvement Program Item 34c.*
 - iii) *Procedures shall be established, documented and implemented for landfill gas as follows:*
 - a. *Means of identifying leaks in the collection system.*
 - b. *Means of detecting and locating ingress of air into the landfill.*
 - c. *Undertaking sufficient balancing for the gas collection system*
 - d. *A means of how the boreholes shall be maintained in-line with design specifications*
 - iv) *Water used a dust suppression technique shall be 1st class water and treated with a biocide. ∞*
 - v) *The fire-fighting water reservoir shall be kept full of clean water all year round and the fire hydrant ring main is always in good working order. ∞*
 - vi) *Further to Condition 2.1.3, with respect to Għallis 2, the basal liner shall have a thickness of 0.3m in line with SL 549.29.*

d) Improvement programme items:

Table 1.5.1: Improvement Programme		
No.	Improvement	Date
23	Implementation and commissioning of leachate treatment system in accordance with the proposal approved in by the Authority.	January 2027
26	Submission of Closure plan in accordance with the requirements of The Landfill Regulations, S.L. 549.29 including a proposal for after-care monitoring to the Authority for approval.	End June 2027
34	Update to the Environmental Monitoring Programme showing how: <ul style="list-style-type: none"> a) groundwater and landfill gas outside the installation shall be measured according to the requirements of Schedule 3 of The Landfill Regulations, S.L. 549.29. b) Pollutants from combusted gases in the emergency flare (PS3 in Condition 6.1.1) shall be measured. c) Effluent collected in the Żwejra Reservoir shall be characterised and subsequently handled in an environmentally safe manner. d) The noise baseline measurements are being 	End November 2026

	updated to reflect the activities of Ghallis 2 in-line with the discussions held with the Authority.	
35	Updating of Site Management System to reflect the Permit Holder's Environmental Management Systems and the requirements of this permit.	End June 2026
36	Design proposal with implementation timeframes for upgraded gas collection and treatment system intended to cover all generated landfill gas in an environmentally sound manner according to Section 6 of this permit. This shall include models, calculation and assumptions providing the required justifications.	End October 2026
37	Commissioning of landfill gas collection and treatment system approved by the Authority in Item 36 above.	Within timeframes agreed to by the Authority in No. 36 above

Annex 1: Site Plan

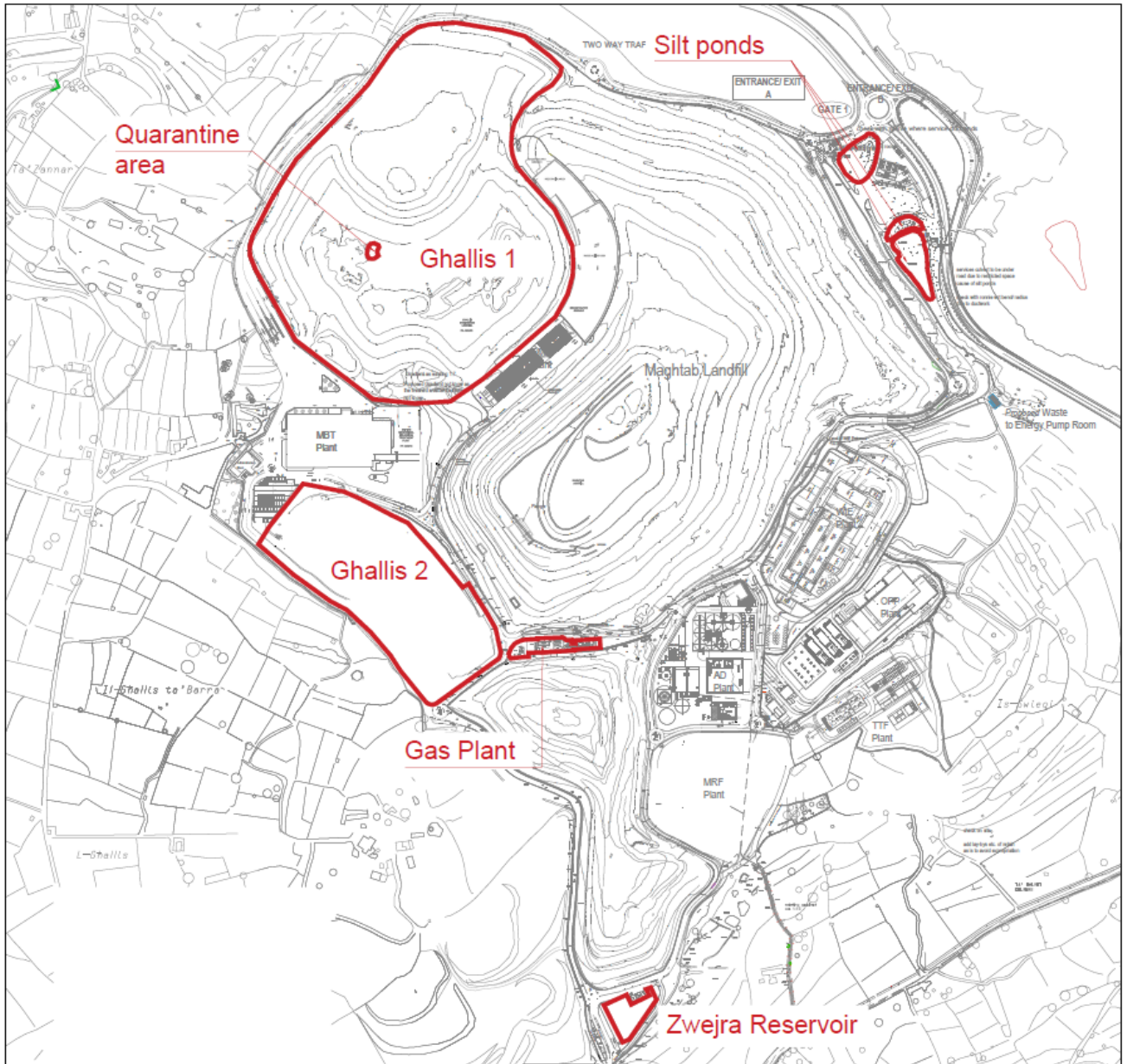


Figure S3.1: Site boundary marked in blue