

# IP 0001/06/C/V2 – Variation to Għallis non-hazardous landfill- Comments from ERA, Regulatory Consultation and Public Consultation

## Form A

Section	Duly made?	ERA Comments – October 2023	Comments by WasteServ 26.03.2024
A1.1	✓	Noted	/
A1.2	✓	Noted	/
A1.3	✓	Noted	/
A1.4	✓	Noted	/
A2.1	✓	Noted	/
A2.2	✓	Noted	/
A3.1	✓	Noted	/
A3.5	X	The registered company number for C30567 is not assigned to Wasteserv Malta Ltd as per Annex 12.	Form A updated with correct company registration number.

Section	ERA Comments – October 2023	Comments by WasteServ 26.03.2024	ERA Comments – April 2024	Comments by WasteServ 21.05.2024
C2.1.1	<p>With reference to the proposed change in site plan, whereby the underground "Zwejra reservoir" is being proposed to remain within this application, kindly note that this reservoir is being earmarked in IP 0003/19/V2 as a fire reservoir covering the operations proposed therein. Applicant might wish to clarify on the use of such reservoir and include timeframes/amend site plan as necessary.</p> <p>Kindly define what the "New Jersey Concrete Barrier" is, including its scope and method of construction.</p>	<p>The water in the Zwejra reservoir shall <u>not</u> be used for fire fighting purposes. Ref IP 0003/19/V2, note that WasteServ sourced, and is currently installing, two large above ground water tanks.</p> <p>The 'Jersey Barriers' or 'New Jersey Barriers' (both terms are used interchangeably) are barriers typically used in construction and/or traffic management. In this instance, the Jersey Barrier serves as an anchorage point to the liners. The scope of the Jersey Barrier is unchanged from the previous permit application.</p>	Noted. It is being understood that this reservoir shall be collecting potentially contaminated effluent from both landfills and the reception area at IP 0003/13/V2. Kindly confirm and describe the use of such water without prejudice to the requirements of other Regulatory Consultees.	The Zwejra reservoir shall be collecting surface runoff water from roads around Zwejra landfill and the (Zwejra) Reception Area (as per IP 0003/13/V2). Depending chemical analysis, such water is either used internally or disposed in the sewer – in case of the latter, liaison with WSC shall take place.
C2.1.3	Please refer to feedback from the Biodiversity and Water Unit below.	/	/	/
C2.1.17	Kindly describe the proposed construction methods used to vertically extend the existing leachate monitoring wells, without compromising their integrity noting proposed increase in landfilled waste and recontouring. Such a proposal shall consider any lessons learnt in relation to damaged leachate collection wells and ensure that all such wells indicated in page 6 of Annex 03 – Plans are in good working order.	At Ghallis 1, WasteServ shall continue to adopt the current building / placement method. If however, a well is no longer viable due to settlement, a new well shall be redrilled. In case of the latter, a 4-6mm metal casing shall be used instead of concrete rings.	Noted.	/
C2.1.18	Kindly provide a process flow block diagram showing how the landfill connects to the leachate treatment plant without recirculation of such leachate. The proposal shall include all material and energy inputs and outputs of the process. In view of the existing associated pending improvement program item, and condition in PA 4964/20/40d a proposal needs to be submitted as part of this application.	Site plan showing location of equipment shall be provided in the future when contract with service provider is finalised. Other operations details (like mass flow, energy use, etc.) can only be provided once the contract with service provider has been signed and the plant has been operational for a number of weeks.	Noted.	/
C2.1.20	Kindly confirm whether the drawing entitled "08" in the plans submitted as Annex 03 refers to the gas collection system network as proposed for this project/variation. If so, please indicate which parts of the gas collection systems indicated in the plan shall be buried and which parts shall be exposed, together with their complete routing to the CHP/RTO referred to in IP 0001/06/C.	Drawing number '08' is a proposal submitted by WasteServ's contractor. This drawing does not take into consideration future projects at the landfill or in the vicinity of the landfill. Therefore, this drawing is not considered as final. Please refer to the current and planned gas network/s forwarded to the Authority in previous weeks. As a general comment, the gas system shall be linked / integrated to the existing gas ring main which is connected to the gas plant. No pipework shall be buried.	Noted.	/

C2.1.21	<p>Apart from the knock-out pot, kindly indicate whether the landfill gas shall be further treated prior to being combusted, taking note of the high levels of silicon compounds in LFG referred to in the Improvement Program Item No. 32 in Annex 02 of this application.</p>	<p>No, the landfill gas shall not be treated further.</p>	<p>For the purposes of quantifying landfill gas emissions and associated compounds under S.L. 549.29 Waste Management (Landfill) Regulations, applicant to provide the latest available emissions profile and conduct a risk assessment accordingly to determine environmentally acceptable pollution concentrations from the LFG engines. Monitoring of emissions might still be required for the above mentioned purposes.</p>	<p>Landfill gas compounds shall not be different from what is present today. Recall that at Frisoli, only waste which have low biodegradable fraction shall be landfilled, and at Ghallis (main), same waste types that are accepted today are landfilled. So this variation does not change or affect the landfill gas compounds.</p>
C2.2.1	<p>Proposal for leachate treatment is to be submitted and assessed as part of this application to ensure it adequately caters for leachate generated from the whole Ghallis landfill.</p> <p>Albeit, no additional areas are being considered besides those already approved, the hydrogeological risk assessment dated November 2004 (Annex 07) does not consider the proposed contouring and landfilled waste mass and the requirements of section C2.2.3 of the application form. Kindly submit an updated assessment covering this proposed variation. The leachate treatment proposal should eventually refer to the conclusions of such risk assessment.</p> <p>Kindly note that the SMS (Annex 08) does not include any appendices such as appendices 1-5 referred to in the same document and this application form. Kindly submit a revised complete SMS reflecting the current and proposed management systems at Ghallis.</p>	<p>Refer to Annex 19.</p> <p>Refer to Annex 07, specifically document titled 'Hydrological study_Frisoli'.</p> <p>The appendices called in the SMS are the following:</p> <p><i>Appendix 1 – Non-hazardous waste types to be accepted</i>  Comment: This appendix is superseded by Schedule 5 of the permit.</p> <p><i>Appendix 2 – Non-hazardous waste types to be used in the restoration</i>  Comment: This detail is typically captured in the closure plan. But landfill closure is not close yet and this topic is to be visited in the future.</p> <p><i>Appendix 3 – Leachate monitoring</i>  Comment: Monitoring is captured via established EMP.</p> <p><i>Appendix 5 – Ground water monitoring</i>  Comment: Monitoring is captured via established EMP.</p> <p><i>Appendix 6 – Landfill gas &amp; ambient air monitoring</i>  Comment: Monitoring is captured via established EMP.</p> <p><i>Appendix 12 – Emergency Response Plan</i></p>	<p>Annex 07 does not consider the impact of this variation proposal on leachate and groundwater as required by Section C.2.2, 2.2.1 - 2.2.7. Form C Section 2.2 still refers to the original HRA dated November 2004. Kindly revise HRA and applicable rows in form C2.2 to address each of these requirements accordingly for this variation proposal.</p> <p>EMP to be updated to reflect this variation and the requirements of C2.2.1.</p>	<p>Through anchorage with the current liner and the application of liners in the wall itself, the lateral sides prevent leachate from travelling laterally through the wall (due to its impermeability) and rainwater from coming in. The latter has the effect of reducing leachate generation.</p> <p>This design and the impermeability properties safeguard the groundwater. To note that there are no changes at the base of the landfill.</p>

		<p>Comment: Emergency response detailed in ERP submitted (Annex 10).</p> <p>WasteServ is currently working on extracting and translating routines described in the SMS into procedures. In such manner, these procedures can be integrated into the EMS and their update and control would be easier.</p>		
C2.2.2	The hydrogeological risk assessment dated November 2004 (Annex 07) does not consider the proposed contouring and landfilled waste mass. Kindly submit an updated assessment covering this proposed variation and the requirements of section C2.2.3 of the application form.	See comment in C2.2.1.		
C2.2.3	Comment in C2.2.1-2 on HRA refers. Grid reference has not been provided.	See comment in C2.2.1.		
C2.2.5-7	The HRA is to be updated to reflect the proposed recontouring as indicated in Annex 03 – Plans.	See comment in C2.2.1.		
C2.2.10	Considering the projects approved to date and alternative segregation and/or disposal facilities, kindly provide an estimate of time until application to surrender permit for landfilling. Reply shall be consistent with the information provided in Annex 1 – PDS.	No estimated time can be submitted at this time.	/	/
C2.2.11	Section 2.1.1 of the SRA (Annex 05) does not refer to cavities in the sub-grade or to the likelihood of basal heave. No reference to parameters is being made in this section. Kindly provide a reply to these questions, considering that the base of this vertical extension in the waste profile will primarily consist of landfilled waste of different types (nature) and age as per Proposed Section GG' in Annex 03.	<p>C.2.2.11 talks about "Assessment of the base of the landfill covered by this application for variation".</p> <p>Messrs. Frisoli, in their SRA, Section 2.1.1 Basal Sub-Grade Screening, indicated 'Not relevant' because there were no changes to the landfill base. Intervention covered by this variation is at the (landfill) sides (upper slope near the embankment) and landfill mass height.</p>	<p>Whilst noting that no changes to the landfill base are being proposed, kindly provide the required assessment for both cavities in the sub-grade or the likelihood of basal heave precisely because of the proposed interventions on landfill mass height and at the sides.</p>	<p>Reference to the likelihood of the basal heave, as stated in the SRA penned by SLR, "Historic groundwater monitoring data indicates that groundwater is located below the basal levels of the landfill and is not confined by any impermeable strata therefore this component does not require further consideration."</p> <p>Reference to cavities in the sub-grade, as stated in the SRA by SLR, there is no evidence of cavities that would have been observed and recorded during the development of the landfill. Furthermore, WasteServ deems that the waste already inputted in the landfill creates a compressive force which, after a certain limit, does not compress further the bedrock.</p> <p>Going back to the SRA, specifically Table 2-1 on page 3, it states that "Given the foregoing, it is considered that the basal subgrade system does not require further assessment."</p>

C2.2.18-19	<p>In view that Section 2.1.4 of the SRA indicates that “further analysis needed to be assessed” in a number of the unconfined conditions, kindly explain on how the reply to the relevant questions in Application Form C have been arrived at. If necessary, please provide the further analysis referred to in the SRA.</p>	<p>There is no change to the below-ground slope/s of the landfill, so that is consideration is out-of-scope of this variation. As was explained, the present liner was extended and anchored to the Jersey Barrier/s.</p> <p>For this intervention, document titled ‘Relazione di verifica’ shows that the liners’ integrity and stability are appropriate; the FoS is higher than 1.2.</p>	Noted.	/
C2.2.20	<p>With reference to the affirmative reply to this question, kindly provide the further investigation and analysis required as described in Section 2.1.5 of the SRA.</p> <p>Whilst noting that the same factors of safety utilised in the report dated November 2004 have been utilised and the reply to this question, kindly indicate whether a higher safety factor could be considered so as to reduce the risk of the temporary waste slopes within the landfill becoming unstable.</p> <p>Further to the above comments, kindly provide measures to adequately manage any residual risks of instability of the waste slope.</p>	<p>As specified in the SRA, waste is placed in phases and the <u>temporary waste slopes</u> are constructed through progressive filling. Slopes are being built with a gradient 1V:3H with the lift being 2m in height. Personnel at the landfill carry out visual inspections for lateral movements and fractures (see Section 3.6). Aerial surveys are taken regularly as well.</p>	<p>Kindly provide a procedure including frequency of aerial surveys showing how these are utilised to identify instability in temporary waste slopes.</p> <p>Considering the provided replies, kindly indicate whether a higher safety factor could be considered so as to reduce the risk of the temporary waste slopes within the landfill becoming unstable. In this case any changes resulting from such a higher safety factor are to be described.</p>	<p>Aerial surveys are conducted on a monthly basis. A drone is deployed on the area of interest and measures the topology in the form of height against a predefined datum.</p> <p>The FoS considered are those presented in the report made available. As explained, the temporary slopes are constructed carefully through progressive filling with a cautious gradient (1V:3H) up to a maximum but manageable height of 2m. WasteServ deems that this practice helps manage any associated risk (related to temporary waste slopes) in a satisfactory manner.</p>
C2.2.24	<p>In view that biogas production is expected to decrease, please provide a gas generation profile forecast for Għallis non-hazardous landfill in graphical form including uncertainty estimates.</p>	Refer to Annex 16.	<p>Annex 16 noted to be missing uncertainty estimates. Kindly explain the current and predicted trend of the biogas recovery plot (green) with respect to the current and future use of landfill gas treatment plant.</p> <p>As required by S.L. 549.29, Schedule 1, Paragraph 4,:</p> <p>4.1. appropriate measures shall be taken in order to control the accumulation and migration of landfill gas (Schedule 3).</p> <p>4.2. Landfill gas shall be collected from all landfills receiving biodegradable waste and the landfill gas must be treated and used. If the gas collected cannot be used to produce energy, it must be flared.</p> <p>4.3. The collection, treatment and use of landfill gas under paragraph 4.2 shall be carried on in a manner which minimises damage to or deterioration of the environment and risk to human health.</p> <p>If required, changes to gas collection system and temporary cover are to be proposed.</p>	<p>When speaking about gas generation, it is important to recall that (i) only waste with low biodegradability can be accepted at Frisoli area and (ii) with the introduction of the white bag, which is treated at Malta North, less organic fraction ends up in the landfill mass. The above, particularly the second point, means that, compared to the early days of the landfill, the potential for biogas is less. The current setup has sufficient capacity to handle the gas generated.</p>

C2.2.25	Kindly confirm that the gas collection system shall be deployed immediately once the proposed recontouring commences so that gas starts to be collected immediately.	At present, WasteServ is already collecting gas from an area in Ghallis. For the whole of Ghallis however, pipework laying and connection shall occur once final reprofiling is completed. A tender for the service and procurement of pipework is already in place.	Kindly indicate how landfill gas pipework shall occur once final reprofiling is completed in a manner which does not compromise surface sealing (thereby leading to potential loss of LFG, rainwater intrusion etc.) as described in this application and IP 0001/06/C.	In light of a future project at Ghallis, it is likely that a revised gas network design needs to be submitted with the variation application for that project. That said, the deployment of gas network and application of capping go hand in hand. Capping integrity (and therefore surface seal) would be monitored as per Closure Plan in place at the time.
C2.2.26	EMP to include reference to the proposal covered by this variation, including changes in contour levels.	Will include in the next update.	Kindly revise EMP (or provide separate document)	Noted. EMP is being updated.
C2.2.28	With reference to the Environmental Risk Assessment referred to in the PDS, kindly indicate the origin of the stockpiled inert material and provide storage methods that shall contain potential dust generation.	Stockpile is generated from internal activities. In order to minimise dust dispersion, stockpile is stored between Ghallis and Maghtab dump – this area is sheltered.	Noted.	/
C2.2.29	The PDS in Annex 01 does not contain copy of the hazards, receptors and high sensitivity receptor assessment templates. Please provide to cover the proposed variation.	Irrespective of methodology utilised, the risk assessment in Table 1 is adequate in identifying the environmental risk from this variation. As per point 43, with the exception of the visual impact, all impacts are either positive or neutral. As per point 45, “The environmental impacts created are expected to be consistent with those currently experienced at the existing landfill complex.”.	Noted.	/
C2.2.30	Kindly provide a works monitoring method statement showing how these various environmental risks shall be further assessed.	The works involved in this variation is not dissimilar to what was approved (IP 0001/06/C) in past renewal and variation.	With respects to the risks identified in C2.2.29 associated with this variation, kindly provide such documents describing how works monitoring is being carried out.	<p>Please refer to the Environmental Risk Assessment in Annex 20 which supersedes the responses provided in Form C which has now been updated and re-submitted with this response.</p> <p>For the elements under consideration in C2.2.30, the Environmental Risk Assessment shows the following:</p> <ul style="list-style-type: none"> <li>• Noise &amp; Vibration – RPN 6 (max)</li> <li>• Odour – RPN 6 (max)</li> <li>• Dust – RPN 6 (max)</li> <li>• Litter – RPN 6 (max)</li> </ul> <p>As regards (i) mud on external roads and (ii) pests, both elements also highlighted in C2.2.30, this variation does not introduce any changes from current operations and thus risk is the same.</p>
C2.2.31	Refer to feedback from Biodiversity and Water Unit within Regulatory Consultation feedback below.	/	/	/
C3.1.1	Kindly provide a conversion of such value to metric tonnes, specifying the conversion factors used.	For a compaction rate of 1.12t/m <sup>3</sup> , available landfilling space amounts to 1,120,000t.	Noted.	/

C3.3.11	Kindly provide all the requested information on the construction of leachate wells, whilst considering that a number of wells have recently been damaged, some of which became unusable and the potential increase in load covered by this proposal associated with the increased waste mass (and potentially better compaction).	WasteServ shall continue to adopt the current building / placement method. Refer to past applications for details on construction materials and method. If however, a well is no longer viable due to settlement, a new well shall be redrilled. The design of the new well is as follows: <ul style="list-style-type: none"> <li>• 800-900 mm diameter well (redrilled);</li> <li>• 12m by 400 mm diameter, 4mm thick, blacksteel casing;</li> <li>• 12m by 400 mm diameter, 4mm thick, perforated black steel casing;</li> <li>• Annulus (space between landfill waste and casing) filled with 20mm non-calcareous gravel;</li> </ul>	Noted. To update Form C in consolidated application accordingly.	Form C has been updated accordingly.
C3.3.12 (pg54)	Kindly indicate which of the layers is being considered as a “surface water drainage layer”.  With reference to page 8 of Annex 03 – Plans, kindly indicate whether all the layers indicated in Detail B shall be constructed/installed immediately when completing each geocell, once that lift is complete or at the end once the landfill capacity covered by this variation has been reached.	Refer to Annex 07 for details, specifically document titled ‘Hydrological study_Frisoli’. Reference in Form C to be updated.  For the Frisoli Wall, layers are installed one lift at a time, while for the remaining landfill mass, capping is applied when all void space is exhausted.	Noted.	/
C3.3.15	Noting that currently there is no leachate storage system and ERA is awaiting for a treatment proposal, kindly indicate where and how leachate will be stored following collection.	WasteServ is currently working to put on the market a tender for the leachate treatment. Refer to Annex 19.	Whilst noting that once the “...system is selected [it] cannot be amended for this could potentially give rise to unfair competition” information about storage location, method and treatment technology including all waste, effluent and emission outputs are to be assessed and cleared by ERA before their implementation.	Noted.
C3.3.16	Kindly provide document “SLR 2021 GHALLIS LANDFILL Capping Specification.”	Refer to Annex 05 document titled ‘210504 403.00585.00035 Restoration Report Final v7 combined - Updated’, electronic page 62.	Noted.	/
C3.3.18	Since leachate treatment is a directly associated activity of this variation, such proposal is to be addressed through this application. ERA has not yet received such a proposal which addresses the requirements of this application. Such a proposal shall also address the relevant requirements of PA 4964/20/40d in a timely manner.  Environmental Monitoring Programme is to be revised to not include sampling from damaged leachate collection wells, whilst retaining a suitable representation of leachate from all Ghallis landfill cells	Noted.	Kindly submit the following for assessment as part of this application: <ol style="list-style-type: none"> <li>Updated leachate treatment proposal in line with Annex 19 (dated January 2024).</li> <li>Revised EMP omitting sampling from damaged leachate collection wells, whilst retaining a suitable representation of leachate from all Ghallis landfill cells making reference to an updated Hydrogeological Risk Assessment in terms of leachate.</li> </ol>	a) Reference to the issuance of a tender aimed at procuring the necessary technology and/or system to treat leachate, kindly note that tender drafting is almost complete and the next step is to submit tender document to DOC for vetting. Document titled ‘Status update on Leachate Treatment System’ in Annex 19 is being updated with the latest timeframe.  b) EMP shall be updated with the latest info on unavailable wells and proximity re-drilled wells.

	making reference to the updated Hydrogeological Risk Assessment.			
C3.3.19	Now that most of the mentioned measures leading to difficulties in estimating leachate generation have been launched/implemented, kindly provide such estimates. Reference can be made to any international standards or models for such calculations. The application should demonstrate how the levels indicated in the EMP shall not be exceeded.	Readings can be provided once the leachate treatment system is commissioned for then, the values provided will be factual.	With respect to the tendering process referred to in Annex 19 and further to ERA's comment in C3.3.15 above, kindly ensure that the proposed leachate collection, treatment and disposal system will have sufficient capacity to handle the maximum predicted rate of leachate generation for the installation, and maintain leachate levels in each separately engineered cell below those specified in the leachate monitoring programme from the date that waste is accepted under the permit. The values (estimates or factual) utilised in the tender process including respective sources and assumptions as applicable shall be provided.	Refer to C3.3.15.
C3.3.20-27	Further to ERA's above review comment in C3.3.18, such treatment proposal is to be included in this variation application for complete assessment in accordance with applicable legislation.	Refer to reply provided for C3.3.18.	Kindly provide as requested in C.3.3.18-27 of application Form C and applicable ERA comments above.	Refer to C3.3.15.
C3.3.32	Replies to this section may require revision based on replies to C3.3.19 above.	Refer to Annex 06, Environmental Monitoring Programme, Section 8.	Noted.	/
C3.3.33	In view that some leachate collection points are currently damaged, kindly indicate how leachate quality from all cells shall be measured.	WasteServ issued a tender for the re-drilling of boreholes. The redrilling project shall take a staggered approach. Initially, 2 boreholes in the South and West of Ghallis shall be re-drilled. Following the successful proximity drilling of these 2 LCPs, WasteServ shall analyse the situation once again and then decide if further LCP proximity redrilling is necessary.	Noted. EMP to be updated accordingly.	Noted.
C3.3.39	EMP and HRA do not refer to this proposal. Documents to be updated accordingly.	Refer to Annex 07, specifically document titled 'Hydrological study_Frisoli'.  The EMP considers the landfill as one block and as such the current EMP is deemed to be still valid for this variation. That said, 1 <sup>st</sup> and 2 <sup>nd</sup> sections of the EMP shall be updated to include a reference to Frisoli and vertical extension.	Noted pending update of the EMP.	Noted.

C3.3.43	Noting that the provided Hydrological Risk Assessment is dated 2004, kindly revise to ensure that any HRA used in this application shall reflect the proposal therein and use latest data sources.	Refer to Annex 07, document titled 'Hydrological study_Frisoli'.	Mentioned document does not consider groundwater. Kindly revise HRA and reply in Form C accordingly.	Through anchorage with the current liner and the application of liners in the wall itself, the lateral sides prevent leachate from travelling laterally through the wall (due to its impermeability) and rainwater from coming in. The latter has the effect of reducing leachate generation. This design and the impermeability properties safeguard the groundwater. To note that there are no changes at the base of the landfill.
C3.3.46	<p>a) Considering the current and expected gas generation (following more landfilled waste being proposed by this application) and quality rates at Ghallis 1 (following more landfilled waste being proposed by this application), kindly provide calculations showing the expected required gas treatment capacity and how this shall be handled utilising the existing or planned equipment. Current gas generation monitoring regimes can be utilised for such calculations.</p> <p>b) In view that flares shall not be utilised, and an emergency flare PS3 is covered by IP 0001/06/C, kindly indicate how poor-quality gas which is not suitable for combustion shall be handled in an environmentally safe manner.</p>	<p>a) Refer to Annex 16. Generated gas shall be treated using the equipment available on site at the time.</p> <p>b) Poor quality gas which is not suitable for combustion shall be directed to the RTO within the Gas Plant.</p>	Graph in Annex 16 has been noted and comments in Section C2.2.24 above are to be addressed. Furthermore, kindly provide associated calculations and assumptions for the expected gas generation showing how the equipment available on site at the time can adequately handle the generated gas.	The graph shown in Annex 16 was attained via GasSim software. When speaking about gas generation, it is important to recall that (i) only waste with low biodegradability can be accepted at Frisoli area and (ii) with the introduction of the white bag, which is treated at Malta North, less organic fraction ends up in the landfill mass. The above, particularly the second point, means that, compared to the early days of the landfill, the potential for biogas is less. The current setup has sufficient capacity to handle the gas generated.
C3.3.48	In view that most of the landfill cells have been constructed and certified by CQA, kindly indicate at which stage of the Lifecycle phases described in Section 2.2 of the Stability Risk Assessment will such certification take place.	<ul style="list-style-type: none"> <li>- For Frisoli A CQA certification is issued for: (i) the works done at the foundation and extension (installation) of liner to surface level; and (ii) build of vertical wall including deployment of liners.</li> <li>- For Landfill Mass (in general) Certification is issued when Ghallis' void space is exhausted and the landfill is capped.</li> </ul>	Noted.	/
C3.3.51	In view that the flare is not being utilised, kindly indicate whether it is still functional and how landfill gas which is not suitable for energy recovery shall be handled in an environmentally safe manner and in accordance with S.L. 549.29.	Poor quality gas which is not suitable for combustion shall be directed to the RTO within the Gas Plant.	Noted.	/

C3.3.53	Control level, detection limit and security are to be provided for the proposed pollutants.	For trigger levels of CH <sub>4</sub> and CO <sub>2</sub> , please refer to Section 4, Table 4.2 of the EMP.	Trigger levels have been noted. ERA's query referring to control level, detection limit and security is still to be addressed.	Current monitoring regime can be found in Section 4 of the EMP.  Landfill gas should not be different from what is present today. Recall that at Frisoli, only waste which have low biodegradable fraction shall be landfilled, and at Ghallis (main), same waste types that are accepted today are landfilled. So linked to this aspect, no changes are envisaged.
C3.3.59	Kindly explain how ad hoc monitoring from receptors in case of complaints shall be considered, making reference to the relevant section/page number of risk assessment covering such scenario. C3.3.61 and 63 may need to be amended accordingly.	Complaints are handled as per procedure ADM QP15 (refer to Annex 11). As per procedure, complaints are forwarded by the Customer Care to the Head of OBU (Managing Professional) for actioning. As may be applicable, in case of complaints related to aerial emissions, the Facility Manager may commission ad-hoc monitoring to get better insight on the situation / complaint.	Noted.	/
C3.3.60	What do results of existing monitoring of air emissions in receptor situations indicate?	Off-site emissions have been scoped-out by ERA in 2019.	Noted.	/
C3.3.61	Reply may require to be changed depending on the reply to C3.3.59 above.	No additional receptor monitoring or changing to the existing monitoring system is required.	Noted.	/
C3.3.65	Kindly reply to this question in terms of measures related to the structures described in the submitted plans and sections for Ghallis 2.	Pipework leading to the Gas Plant is unchanged by this variation.	Kindly explain how with reference to the recontouring proposed in this variation (Annexes 3 and 5), existing pipework (e.g. leachate and gas collection) will remain unchanged without being buried (See C.2.1.20 above).	As regards gas collection, the current collection setup needs to be updated both because of the recontouring of the landfill mass (towards the central portion of the landfill – this variation) and a future project envisaged at Ghallis. This is because recontouring needs to be done with a holistic perspective / approach. This will be revisited in / during the variation for the upcoming project.  Reference to the leachate collection points, as per drawing titled 'Plans_' page 6 (in Annex 03), leachate wells are further in from the Frisoli intervention area and thus not affected by this change.
C3.3.66	Kindly describe the scope of the certifications to be renewed annually as part of an inspection and maintenance program with timeframes.	At the gas plant, on a routine basis, gas flow and gas quality are monitored. On a monthly basis, manifolds are checked in terms of gas quality, flow and pressure. Thermal imaging is utilised as a leak detection system.	Noted.	/

C3.3.70	With respect to Section 17.3.6 of Annex 6, kindly elaborate the measures/actions that are taken with regards to the strength and direction of the prevailing wind in a manner to prevent litter escape from the landfill.	<p>Depending on the wind strength and direction, litter nets are placed downstream facing the prevailing wind. Furthermore, WasteServ has recently introduced Policy 012 ECOHIVE Adverse Weather Conditions Policy to streamline its response to difficult weather conditions, example:</p> <p>Status Yellow [Wind] Widespread mean speeds between 50 and 65km/h Widespread gusts between 90 and 110km/h Gale force 8 / Strong Gale Force 9 Stop shredding operations.</p> <p>Status Amber [Wind] Widespread mean speeds between 65 and 80km/h Widespread gusts between 110 and 130km/h Storm Force 10 Stop operations at the landfill.</p> <p>Status Red [Wind] Widespread mean speeds more than 80km/h Widespread gusts more than 130km/h Violent Storm Force 11 / Hurricane force 12 Stop all operations.</p>	Noted.	/
C3.3.73	Site Management System is to be updated accordingly.	Noted.	Kindly provide updated SMS accordingly.	Work on the SMS document is still on-going. Given the scale of the task, WasteServ is expected to complete task by Q3 2024.
C3.3.79	Since due to the recontouring, landfilling and associated activities potentially involving the handling of material like plastic packaging shall take place in higher areas and therefore more exposed to wind, kindly elaborate how the provisions in section 17 of the SMS are deemed adequate or update as required. Feedback from the Biodiversity and Water Unit in the Regulatory Consultation section below refers.	<p>Measures in place to limit fugitive litter:</p> <ul style="list-style-type: none"> <li>• Re-oriented of active tipface depending on wind direction.</li> <li>• Deployment / adjustment of the litter nets.</li> <li>• Deposited / unloaded waste is typically landfilled immediately – 2 landfill compactors are being utilised.</li> <li>• In the past months, WasteServ modified its landfilling process so that operations take place in cells. To elaborate further, one cell has an approximate surface area of 120m by 50m. Within this cell, the active tipface is only 30% of the referred area, that is, approximately 36m by 50m.</li> </ul>	Noted. SMS to be updated accordingly.	Work on the SMS document is still on-going. Given the scale of the task, WasteServ is expected to complete task by Q3 2024.

		<p>In view of the limited size of the active tipface, potential for litter is minimal.</p> <ul style="list-style-type: none"> <li>• Compaction levels are high; this immobilises the waste and reduces incidence of escaping litter.</li> <li>• Adaptation of Policy 012 in case of extreme weather (see reply to C3.3.70).</li> <li>• Application of daily cover at the end of the shift.</li> <li>• Although this is the least preferred option, landfill perimeter fencing provides final barrier to escaping litter;</li> <li>• Ad-hoc litter collections efforts are coordinated when necessary.</li> </ul>		
C3.3.84-86	Kindly update EMP with the mentioned “additional monitoring would be required at the site of operations proposed by this variation” in terms of noise.	This is a typo – answers to both questions C3.3.84 – C3.3.86 to read ‘No’. The works and landfill operations done at Frisoli, and the landfilling (to reach higher heights) at Ghallis is not dissimilar to current situation today. No noise complaints were registered in the past years.	Noted.	/
C3.3.87-88	Kindly note that the provided EMP does not refer or cover this proposed variation. Reply to this question concerning noise and vibration within the installation boundary is to be revised accordingly, including any required works monitoring.	The EMP is adequate in measuring noise and vibration at the site boundary. No additional monitoring is required for works and landfill operations done at Frisoli, and the landfilling (to reach higher heights) at Ghallis is not dissimilar to current situation today. No noise complaints were registered in the past years.	Noted. EMP still to refer to this proposal in its scope.	Noted.
C3.4.1	Kindly describe how the storage area and method used for the plastic and metal, for the creation of the retaining structures used in the new landfill cells, shall consider any accident risk (e.g. fire).	<p>Ref Frisoli, the build of the retaining structure is such that it is put in place, one meter at a time. This also means that material brought close to the work area will be limited. Apart from that, the Emergency Response Plan at ECOHIVE is intended to capture emergency situations, even at Frisoli. The below are the measures in place:</p> <ul style="list-style-type: none"> <li>• Following a lift of 1m, daily cover is applied and compacted.</li> <li>• Adopt an Emergency Response Plan.</li> <li>• Trained personnel in firefighting.</li> <li>• Keep pile of inert on the landfill so that it can be used to extinguish the fire.</li> <li>• Have available heavy plant (bulldozers, landfill compactors) to handle inert.</li> <li>• Have available firefighting water in reservoirs at ECOHIVE.</li> <li>• Water bowser is available on site and is available to dispense water in case of emergency.</li> </ul>	Whilst noting all the proposed measures addressed at handling accident emergencies, Form C is still to be revised to describe the actions taken or purposed to minimize the chances of such accidents happening.	<p>Form C updated to include the following measures:</p> <ul style="list-style-type: none"> <li>• Limited construction material close to the work area.</li> <li>• Following a lift of 1m, daily cover is applied and compacted.</li> <li>• Adopt an Emergency Response Plan.</li> <li>• Trained personnel in firefighting.</li> <li>• Keep pile of inert on the landfill so that it can be used to extinguish the fire.</li> <li>• Have available heavy plant vehicles (bulldozers, landfill compactors) to handle inert.</li> <li>• Have available firefighting water in reservoirs at ECOHIVE.</li> <li>• Water bowser is available on site and is available to dispense water in case of emergency.</li> </ul>

C3.4.4	<p>The Site Management System document dated 2005 is to be revised to consider latest landfill practices and the findings/recommendations arising from the Stability Risk Assessment, particularly in terms of subsidence and landslides.</p> <p>With reference to para 3.1.5 of the Stability Risk Assessment, kindly describe the selected form of monitoring for waste mass in terms of settlement.</p>	<p>WasteServ is currently working on extracting and translating routines described in SMS into procedures.</p> <p>Monitoring is done via geographical topography surveys.</p>	Revised SMS and associated procedures to be submitted for assessment as part of this application.	Work on the SMS document is still on-going. Given the scale of the task, WasteServ is expected to complete task by Q3 2024. But generally speaking, methods and/or routines adopted in the past months shall still be utilised.
C3.4.9	See the Compliance & Enforcement comments within the Regulatory Consultation Section below.	/	Item 28 - With reference to Annex 18, in view that the above-ground tank is not being considered as waste by the applicant, kindly submit a declaration from a warranted engineer showing that it is in good working order and fit for purpose.	WasteServ has raised a Purchase Order (PO 53149) for the service of a REWS approved engineer – declaration to follow at the earliest.
C3.5.4	<p>With reference to the SMS Section 25.3 and the restoration plan referred to therein, and with reference to Improvement Program item 26, kindly submit such plan for the areas not covered by this intervention as per Annex 03 – “Frisoli 1B-Plan”. This should include the requested details in terms of short-and long-term stability and access requirements for monitoring and maintenance.</p> <p>In view of this re-contouring variation proposal, kindly explain how the costs described in section 3.4.4.8 shall remain the same or otherwise revise accordingly.</p>	<p>For restoration plan for the whole of Ghallis (excluding Frisoli), refer to document titled ‘210504 403.00585.00035 Restoration Report Final v7 combined - Updated’, specifically the following sections:</p> <ul style="list-style-type: none"> <li>Revised Restoration Design Report, electronic page 1, and</li> <li>Capping Specification electronic, electronic page 62.</li> </ul> <p>For Frisoli, specifically the retaining wall, details of the liners / capping are specified in the drawings of the sections.</p> <p>Reference to C3.4.4.9, the increase in ‘surface area’ resulting from this variation compared to the (total) area of the landfill mass is not significant, therefore estimate provided is adequate.</p>	Kindly revise Form C to describe how proposed after-use and restoration does not conflict with access requirements for monitoring and maintenance of environmental management and monitoring systems, for example the required pre-drilling of landfill gas extraction boreholes, since the provided documents do not include such information.	The plans in document titled ‘Revised Restoration Design Report’ in Annex 05 already show access ramp and benches which serve as ‘internal’ roads on the landfill.
C3.3.4 (pg. 127) – C3.3.18	Concerning emissions to air from gas engines, kindly provide the requested replies for each pollutant irrespective of whether the plant is classified as a Medium Combustion Plant under S.L. 549.122 and the current monitoring proposal.	This variation does not introduce a change to any emission/s profile. Refer to previous applications for detail requested. Also, as communicated to ERA via other channel, this CHP is less than 1MW_thermal and manufactured before 2018. These two facts exempt qualify the said CHP for an exemption from S.L. 549.122. Furthermore, there is no monitoring requirement for Ghallis CHPs in the current EMP.	ERA confirms that the plant does not fall within scope of S.L. 549.122. Since it is combusting/treating landfill gases (including those covered by this variation), the EMP is to be updated to consider monitoring of the following pollutants: NOx, CO, SOx, CO2, and TVOC.	As per response to C2.2.26, EMP shall be updated to include proposal covered by this variation, including changes in contour levels. As regards, pollutants to be monitored, these have been identified with ERA in a lengthy exercise carried out in the past years. Current monitoring regime can be found in Section 4 of the EMP. Landfill gas should not be different from what is present today. Recall that at Frisoli, only waste which have low biodegradable fraction shall be landfilled, and at Ghallis (main), same waste types that are accepted today are landfilled. So linked to this aspect, no changes are envisaged.
C3.4.2.3 (pg. 135)	Annex – 08 (Site Management System) is to be updated to reflect latest operational practices and those proposed in this application.	Noted.	Kindly update SMS accordingly.	Work on the SMS document is still on-going. Given the scale of the task, WasteServ is expected to complete task by Q3 2024.

C3.4.2.6-7	Kindly provide the formal maintenance programme.	Refer to Annex 15.	Annex 15 seems to relate to the gas plant equipment. Kindly expand such programme to other major 'non productive' items such as tanks, pipework, retaining walls, bunds ducts and filters. Furthermore, with respect to the replies in C3.4.2.7, thus a plan shall also include the required auditing and reporting to top management.	WasteServ submitted the Maintenance Plan for the Gas Plant equipment because it is typically such equipment that have moving parts which require maintenance and servicing.
C.3.4.2.10-12	Kindly provide documentation (possibly as part of the EMS) justifying the affirmative answer to each of these questions.	C.3.4.2.10 – Refer to Annex 17.  C.3.4.2.11 – Apart from Frisoli Project, in which the Contractor's personnel are building the retaining wall as per patent design, the other Contractor's personnel are the Landfill Compactors' drivers who, on a day-by-day basis, take instruction from WasteServ personnel. When Contractors bid for any tender, said Contractors sign form WS115 which, as a bare minimum, puts emphasis on environment protection.  C.3.4.2.12 – Contractor personnel limited to Compactors driver who, on a day-by-day basis, take instruction from WasteServ personnel.	Noted.	/
C3.4.2.14	Kindly update documentation to describe the likelihood and consequence of accidents.	See Environmental Risk Assessment in Annex 20.	Noted.	/
C3.4.2.15	Whilst noting that the provided plan describes mitigation measures for accidents whilst they occur, it needs to be updated to include preventive measures or otherwise a separate document is to be submitted.	See Environmental Risk Assessment in Annex 20.	Noted.	/
C.3.4.2.17	Kindly submit procedure for recording and investigating environmental complaints.	Refer to procedure titled 'ADM QP15 Complaint Management Procedure' in Annex 11.	Noted.	/
C.3.4.3.1	With reference to the replies and ERA feedback above on C2.1.18 and Reserved Matter No. 2 in PA 4964/20/40d, an updated reply in terms of leachate treatment is required.  The following development applications were also traced for the site covered by this variation application. Kindly confirm their relevance or otherwise to this application, updating the relevant sections and layout plans as necessary:  PA 03422/22 – Upgrading of the road network at the Ecohive complex, Maghtab	Refer to Annex 19.  PA 03422/22 and PA 3932/22 do not affect this variation.	Refer to C2.1.18 in terms of leachate treatment.	Noted.

	PA 3932/22 - Application for the Clearance of Sites from Topsoil, Subsoil and Loose Material to study terrain in preparation for future plants.			
C.3.4.4.5	Kindly provide Curriculum Vitae and a recent Police Conduct of both nominated TCPs.	Refer to email sent by WasteServ on 04.01.2023.	Kindly include in consolidated application, providing also a non-confidential version where deemed necessary.	Noted. The TCPs have been updated since the last round of replies were submitted by WasteServ. Kindly note that these will be submitted to ERA via email in parallel to these replies.
C3.4.4.7	Kindly provide a training programme outline with timeframes to demonstrate that such persons shall receive ongoing appropriate technical and professional development	Refer to Annex 17.	Noted.	/

### Comments from Consultation

Consultee	Consultee Comment – June 2023	ERA Permitting Unit Comments – October 2023	Comments by WasteServ March 2024	Consultee Comment – April 2024	Comments by WasteServ May 2024
Occupational Health and Safety Authority (OHSA)	<p>With reference to this consultation exercise, kindly note that the Occupational Health and Safety Authority (OHSA) finds no objection to its approval, provided that the applicant abides by all relevant occupational health and safety (OHS) legislation and in particular:</p> <p>A. Any works falling under the applicability of the Work Place (Minimum Health and Safety Requirements for Work at Construction Sites) Regulations, 2018 (S.L. 424.36), shall be compliant to the requirements of these regulations, in particular:</p> <ul style="list-style-type: none"> <li>i. The appointment by the Client of a Project Supervisor for the required construction works and any such appointment shall be terminated, changed or renewed as necessary</li> <li>ii. If applicable, the prior notification of the construction works to OHSA by the appointed Project Supervisor at last four calendar weeks before work commences</li> <li>iii. The maintenance by the Client of a Health and Safety file appropriate to the characteristics of the project containing relevant health and safety information to be considered during any subsequent works and</li> </ul>	Applicant to note conditions proposed by OHSA.	<p>A. WasteServ understands that this variation is not a construction project but rather landfill construction &amp; landfill management. That said, various good practices, like the appointment of supervisor, compilation of risk assessment, etc., are still adopted.</p>	/	/

	<p>iv. The drawing up of health and safety plan by the Project Supervisor prior to the setting up of the planned works.</p> <p>B. The contractor/s and, or self-employed persons entrusted with the various works required to execute this application shall ensure the health and safety of themselves and their workers and shall cooperate with one another, as stipulated in various OHS regulations, particularly S.L. 424.18 and S.L. 424.36;</p> <p>C. All work equipment used at this site shall comply with the relevant OHS regulations particularly, but not limited to the provisions of S.L. 424.35;</p> <p>D. All contractors and self-employed persons engaged on this project shall ensure that that all OHS hazards present at this place of work are covered by a suitable, sufficient and systematic risk assessment carried out as per S.L. 424.18 and other relevant OHS regulations. Without prejudice to other legal obligations, this risk assessment shall, inter alia and as applicable, refer to:</p> <ul style="list-style-type: none"> <li>i. Measures to protect workers from falls from heights</li> <li>ii. Measures against risks from falling objects / material</li> <li>iii. Welfare facilities required for workers</li> <li>iv. The required health and, or safety signs</li> <li>v. Measures against risks from manual handling of loads as per S.L. 424.17</li> <li>vi. Measures to protect workers from risks from exposure to the sun</li> <li>vii. First aid at work requirements</li> <li>viii. Safe ancillary excavation and carting away practices</li> <li>ix. Training and competence of workers to perform the assigned tasks</li> <li>x. Measures to protect workers from chemical agents at work, including occupational dusts</li> <li>xi. Protection against physical agents at work including but not limited to risks from noise and vibration and</li> </ul>		<p>B. WasteServ understands that this variation is not a construction project but rather landfill construction &amp; landfill management. That said, various good practices, like the appointment of supervisor, compilation of risk assessment, etc., are still adopted.</p> <p>C. Noted.</p> <p>D. Noted.</p> <p>E. Noted.</p>		
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	<p>xii. Personal protective clothing / equipment to be used by workers.</p> <p>E. Subsequent to this risk assessment, the contractor/s shall take all necessary measures to prevent occupational risks to health and safety, and shall control those factors which are likely to give rise to accidents or which create a risk to occupational health and, or safety.</p> <p>Kindly note that electronic copies of the various legal notices referred to in this communication may be downloaded free of charge from <a href="https://legislation.mt/">https://legislation.mt/</a></p>				
Regulator for Energy and Water Services (REWS)	<p>Wasteserv to clarify, how the 56,000 litres of diesel are being stored / used.</p> <p>If these are stored /used progressively using REWS fuel distributor license FDR/42 then we have no further comments.</p> <p>If there are any remaining fuel tanks not known to the REWS, Wasteserv needs to register them accordingly.</p> <p>Documents associated with the REWS Application to operate a secondary storage facility of fuel have still not been submitted by this operator.</p>	Applicant to provide the requested clarification to REWS and act accordingly as necessary.	<p>The 56,000 litres of diesel are stored and used progressively.</p> <p>The secondary storage facility referred to is linked to MN permit (not Ghallis). As an update however, WasteServ is currently coordinating the cleaning of the fuel tank inside the container. Next step would be to connect the decommissioned green tank from MN parking as auxiliary tank. Ing. Claude Farrugia is assisting WasteServ in this task. Apart from this entry, an update shall be sent to REWS directly.</p>	No objection.	/
Water Services Corporation (WSC)	<ol style="list-style-type: none"> <li>1. If landfill leachate is going to be treated for discharge to sewer, an application for a Public Sewer Discharge Permit is to be submitted to initiate permitting process;</li> <li>2. When a leachate treatment system/plant is constructed, the allowance of such effluent to be discharged to sewer is dependent on the quality of this effluent and the presence of any prohibited substances as per discharge regulations;</li> <li>3. Under no circumstances will rainwater (or contaminated rainwater) be allowed to be discharged to sewer;</li> </ol>	<p>Conditions will be included accordingly.</p> <p>Applicant is to clarify whether any discharges of effluent (including leachate) are envisioned.</p>	<ol style="list-style-type: none"> <li>1. Treatment system which WasteServ shall endeavour to put in place (see Annex 19) will require the possibility that processed output is disposed in the sewer. To this end, WasteServ will apply for sewer discharge permit.</li> <li>2. WasteServ shall keep as reference the limits prescribed in S.L. 545.08. Adherence to such limits will be included in the specs of the tender document.</li> <li>3. Noted.</li> </ol>	No further comments.	/

Environmental Health Directorate (EHD)	<ol style="list-style-type: none"> <li>1. With these variations the Directorate has no objection.</li> <li>2. No waste, foul water and contaminated surface water is to exit the scheme.</li> <li>3. The mentioned mitigation measures for both construction and operation phase are to be adhere to.</li> <li>4. Pest treatment must be carried out along the entire scheme since it is prone to rodent attraction.</li> <li>5. Moreover, any other unpredicted impacts and nuisances which may arise from this operation and that may have a significant adverse effect on public health are to be immediately addressed by the applicant and the necessary mitigation measures taken.</li> <li>6. Complaints lodged by the public regarding any adverse impacts/nuisances should be immediately addressed by the applicant. All complaints lodged and actions taken are to be recorded and such records are to be readily available to the Competent Authorities when requested.</li> </ol>	Applicant to note comments from EHD. Conditions will be included accordingly.	<ol style="list-style-type: none"> <li>1. Noted.</li> <li>2. Noted. Ghallis landfill offers full containment.</li> <li>3. WasteServ compiled an Environmental Risk Assessment as part of its approach to this variation.</li> <li>4. WasteServ applies daily cover as a rodent barrier.</li> <li>5. Noted.</li> <li>6. A Complaints Register is maintained by WasteServ.</li> </ol>	No further comments.	/
Energy and Water Agency (EWA)	No feedback was provided	--	/	/	/
Civil Protection Department (CPD)	No feedback was provided	--	/	/	/
Malta Resources Authority (MRA)	No feedback was provided	--	/	/	/
Planning Authority (PA)	No feedback was provided	--	/	No further comments.	/
ERA – Ambient Air Quality and Waste – Air Team	No comments on the application.	--	/	No further comments.	/

ERA – Ambient Air Quality and Waste – Noise Team	No comments from a noise perspective. All updates for the EMP are in line with previous correspondence. However kindly note that despite it is a requirement in the permit that a noise monitoring study is carried out annually, the latest version at our end and as mentioned in the EMP goes back to 2019. We would like to highlight the importance of the submission of this study noting that this is the second variation received for this permit.	Noise study to be submitted accordingly as per EMP.	The annual noise monitoring for year 2022 was submitted to ERA on 28.06.2023. In this application it is being reproduced in Annex 21. For year 2023, this shall be submitted to ERA by 31.05.2024.	No further comments.	/
ERA – Environmental Assessment Unit	<p>Form C: Page 80: Management of odour and lateral migration while maintaining utilization, e.g.separate systems. <i>Applies if Yes, there is a need to collect landfill gas on Section 3.3.44 is ticked.</i></p> <p>The reply provided by the applicant refers solely to the generated gas, which although emits odour, is not the only odour emitter. Landfilled waste also generates odour. Furthermore, reference is made to ERA’s Conditions issues as part of the development permit application.  → Condition 1: ‘With respect to the daily cover, the applicant is to submit a plan for alternatives to mitigate further dust and odour. Such a proposal shall ensure that both operational safety and environmental effects are considered. This shall be submitted to the satisfaction of the Authority within 9 months of the granting of this permit.’</p>	Whilst noting the reducing rate of organic waste being envisioned to be landfilled, applicant is to propose measures on how odour emissions from the landfilled waste shall be managed and mitigated.	<p>One way to limit odour is by reducing the active area of the tipface. In recent months, WasteServ reduced the size of the tipface by approx. 70% when compared to previous modus operandi. Another way to limit odour is through compaction. Compressed waste (at the surface) reduces odour dispersion. Through its operations, WasteServ is now reaching a waste density of over 1 t/m<sup>3</sup>. This means that the waste is crammed down and this creates a barrier which limits odour dispersion.</p> <p>The use of alternative daily cover has been discussed at various occasions in the past. For the reality at Ghallis, the application of inert at the end of the shift remains the most practical option.</p>	No particular concerns from an EIA point of view.	/
ERA - Biodiversity and Water Unit	Concerned that the mitigation measure of netting is not sufficient and cleaning of the surrounding areas is not performed especially after strong winds.	Applicant to propose measures on how litter shall be prevented to escape outside the site boundary, particularly into Ghadira s-safra, and in the case of such litter how it will be sufficiently cleaned in a timely manner.	<p>In order to limit fugitive litter, WasteServ has put in place the following measures:</p> <ul style="list-style-type: none"> <li>• Depending on the wind strength and direction, litter nets are placed downstream facing the prevailing wind.</li> <li>• Unloaded waste is typically landfilled immediately – 2 landfill compactors are being utilised;</li> <li>• In the past months, WasteServ reduced the size of the active tipface based on cell operation.</li> </ul>	No further comments.	/

			<ul style="list-style-type: none"> <li>• Through its operations, WasteServ is now reaching a higher waste density (&gt;1 t/m<sup>3</sup>) – this immobilises the waste and reduces incidence of escaping litter.</li> <li>• WasteServ has drawn up and is adaptation Policy 012 ECOHIVE Adverse Weather Conditions Policy which states that in case of Amber or Red status, operations at the landfill are stopped.</li> <li>• Application of daily cover at the end of the shift.</li> <li>• Although this is the least preferred option, landfill perimeter fencing provides final barrier to escaping litter.</li> <li>• Ad-hoc litter collections efforts are coordinated when necessary.</li> </ul> <p>WasteServ is not aware that there were many instances where waste ended up at the Ghadira s-Safra. Following one particular incident related to high winds (Force 8), the next day, WasteServ organised a clean-up of the area.</p>		
ERA – Compliance and Enforcement Unit	<p>Awaiting further information on alternative location for the LCPs in view of the large number of them being disused.</p> <p>Annex 06 - The version of the EMP submitted with this application (V7, dated 7th October 2022) has not yet been approved by ERA.</p> <p>Annex 11 Site Management System – While it is likely that parts of the SMS are still relevant to the current site procedures, this document needs to be updated to reflect the current state of affairs and the proposed activities being made in this variation application.</p>	<p>By making reference to Hydrogeological and Landfill gas risk assessments, kindly describe how leachate from the whole Ghallis landfill shall be monitored in a representative manner. Above feedback in C2.1.17 C3.3.11, C3.3.18 refers.</p> <p>Annex 06 – EMP is to be updated according to feedback in this review.</p> <p>Annex 11 – SMS to be updated accordingly and feedback above in review of Form C.</p>	<p>WasteServ issued a tender for the re-drilling of boreholes. The re-drilling project shall take a staggered approach. Initially, 2 boreholes in the South and West of Ghallis shall be re-drilled. Following the successful proximity drilling of these 2 LCPs, WasteServ shall analyse the situation once again and then decide if further LCP proximity re-drilling is necessary.</p> <p>Annex 06 Noted.</p> <p>Annex 11 An exercise has started in which the SMS is being reviewed and</p>	<p>Application Documents: The status on Annex 6 (EMP) is that the EMP has since effectively been approved (Jan 2024) however, ERA is still awaiting the final clean updated version of the document which will have ERA’s final comments on board. There are no further comments on Annex 11 and Annex 14.</p>	

	<p>Annex 14 - An update is required to this document in view that applicant is stating that the currently the estimated landfill lifetime is expected to last till circa 2022.</p> <p>Annex 18 – The version of the EMP submitted with this application (V7, dated 7th October 2022) has not yet been approved by ERA. CED had sent an email to WSM with further comments on this version of the document on 23rd February 2023, however to date no reply has been forthcoming.</p> <p>In terms of Improvement Programme items:</p> <p>Items 22 &amp; 23 - ERA is still awaiting an updated proposal following the Authority's reply dated 02/11/2022.</p> <p>Item 25 - No information of any kind has been received from WSM on this IP item to date. Applicant to provide timeframes by when this can be submitted.</p> <p>Item 26 - This IP is still considered as incomplete and needs to be submitted as part of this variation application.</p> <p>Item 28 – Without prejudice to the REWS feedback above, kindly provide a decommissioning report from a third party warranted engineer for this fuel tank.</p> <p>Item 32 – Further to section C2.1.21 above, an alternative proposal with timeframes treating emissions generated by the landfill gas powered-plant is required.</p>	<p>Annex 14 – Site report to be updated accordingly</p> <p>Annex 18 – EMP to be updated accordingly and in line with above feedback concerning Form C.</p> <p>Improvement Program – Requested replies are to be provided by applicant</p>	<p>routines are being mapped into procedures.</p> <p>Annex 14 Site report updated and attached.</p> <p>Annex 18 Reply to ERA on comments on the EMP was provided in October 2023.</p> <p>Item 22 &amp; 23 Refer to Annex 19.</p> <p>Item 25 WasteServ provided copies of the Existing Gas Layout for Ghallis, together with the Proposed Gas Network site plan to ERA on 13.10.2023.</p> <p>Item 26 Refer to reply provided in C3.5.4.</p> <p>Item 28 Refer to Annex 18.</p> <p>Item 32 WasteServ has commissioned a technical analysis by Messrs. Biogas Control Service. Given the amount of siloxanes in the landfill, the installation of a catalytic converter will be short-lived, thus, it is not a justifiable solution. As discussed in a separate matter with the Authority, given that requirements for existing combustion plants are mandatory from 2030 onwards, WasteServ shall not be investing in the installation of a catalytic convertor. Furthermore, there is no monitoring requirement for</p>	<p><b>Improvement Program:</b></p> <p>Item 24 – Pending replies from ERA to WSM submissions dated 1st March 2024.</p>	<p>/</p>
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			Ghallis CHPs in the current EMP. Through this application, WasteServ is hereby requesting that this Improvement Programme Item is removed / closed-off.		
ERA – Ambient Air Quality and Waste – Waste Team	<p>1. Improvement Item 22 of the IP 0001/06/C requires that a proposal for leachate treatment which excludes recirculation was to be submitted by June 2020. One year later, in June 2021, ERA received a draft proposal for a pilot project to test an evapotranspiration method and ERA requested several clarification on it for which we are still waiting. In addition to the pending clarifications on the pilot project, WasteServ is to provide ERA with the results that led to the conclusion that the ‘The evapotranspiration method has resulted in improvements in leachate concentration levels’. Furthermore, since recirculation ceased to be carried out as from mid-2020, clarifications are needed on what is being done with the leachate. To note, the evapotranspiration system was presented as a pilot project and ERA did not approve it as a treatment option.</p> <p>In page 9 of Form C, WasteServ indicates that a market research was launched to investigate potential treatment solutions to complement the ‘evapotranspiration methodology’ and that a shortlisted technology can be shared with the Authority for comments and review. We take note of this and we would appreciate to receive it.</p>	Applicant to provide the requested clarification/information or otherwise indicate time frames when they shall be made available, and ensure timely submission to ERA thereafter.	<p>Refer to Annex 19.</p> <p>As per said document, WasteServ is actively working on putting on the market a tender for leachate treatment. To clarify, the system shall be identified following tender adjudication and following which, system is selected and cannot be amended for this could potentially give rise to unfair competition.</p> <p>Refer to Annex 19.</p>	Since recirculation ceased to be carried out as from mid-2020, clarifications are needed on what is being done with the leachate. To note, the evapotranspiration system was presented as a pilot project and ERA did not approve it as a treatment option.	Refer to C3.3.15.

## Comments from Public Consultation

No comments were received from the public.