Environmental Impact Assessment

Screening

(According to Schedule IB of S.L. 549.46)

PA file no.: PA/02013/16

Other reference: EA/00012/17

Project Title: To restore disused quarry into agricultural field including part construction of

boundary wall.

Location: Disused Quarry, Triq tal-Balal, Ix- Xwieki, Iklin, Malta

Screening date: April 2017

1. Description of Proposal

1.1 Outline of project/development

PA/02013/16 is a development application, which proposes the rehabilitation of an exhausted quarry to agricultural use, covering an area of 4,090 m². The site has been used partly to cultivate fodder, while the quarry void that used to accommodate an orchard of citrus trees, has been abandoned. Parts of the quarry are already converted to agriculture but by virtue of this application, the exhausted quarry will be brought to level with the surrounding area and the soil level will be increased (Figure 1). The restoration of the exhausted parts of the quarry in question will be backfilled with inert waste from the applicant's core business, excavation works. The volume to be infilled is about 23,000 m³, which will necessitate about 1,000 HGV trips. The proposal does not involve any buildings or structures, and will not use any utilities. There will be some retaining walls built in rubble to blend within the surroundings. No chemicals, oils, fuels and other hazardous substances will be stored on site.

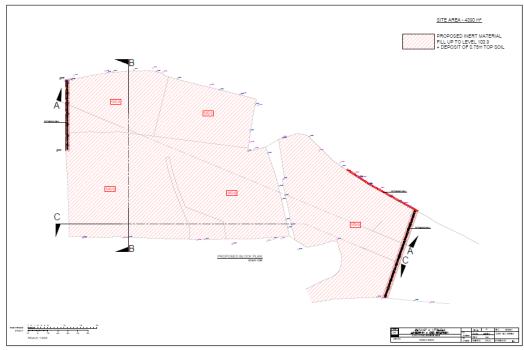


Figure 1: Project outline, showing the area proposed to be backfilled with inert material and covered with 0.75m top soil (*Source*: PDS Appendix).

1.2 Site description and related considerations

The development site lies in the Northern periphery of Iklin Local Council boundary (Figure 2). The site is accessed through a lane off Trig tal-Balal, which in turn links Naxxar, Iklin and San Gwann. The road fronting the site has historically served to access the quarries. The access will only be used for a limited period, for the backfilling process.

The area has in the past been used for quarrying activities. Most of these quarries in the area (further to the West along the Tal-Balal corridor) have been restored and converted to other industrial uses, open storage areas and construction yards. The site has been used for agriculture, parts of which has been used to cultivate fodder, while the quarry void that used to accommodate an orchard of citrus trees, seems to have been abandoned. High coverage of vegetation of namely Fennel (Foeniculum vulgare), Perennial Wall Rocket (Diplotaxis tenuifolia), Wild Carrot (Daucus carota) and Shrub Tobacco (Nicotiana glauca) was noted in the immediate vicinity of the quarry.

The site falls Outside Development Zone (ODZ), and is located within the 300m Groundwater Safeguard Zone.



Figure 2: Site area, outlined in blue (Source: PA Geoserver)

2. EIA-relevant history

2.1 Relevant EIA/screening criteria (citations refer to L.N. 114 of 2007, as amended, except where otherwise specified):

Schedule 1A Category II Section 5.3.2.1 (Restoration and after use of existing and disused quarries not already covered by an approved landscaping/restoration scheme, where the boundary of the site is within 200m of a protected site or a site of known environmental importance).

2.2 Version of documents used for screening

- PDS, dated 24th March 2017 (PA/02013/16 24f) received by ERA on 7th April, 2017;
- Plans and Diagrams, dated 24th March 2017 (PA/02013/16 24b-e), and
 ERA Consultation, dated 7th April 2017 (PA/02013/16 25a).

3. Screening Matrix

Ques tion Num	Questions to be Considered	Identified potential impacts	Is this likely to result in a significant effect?	Document reference
ber:		Briefly describe	Briefly justify	
1	Will construction, operation or decommissioning of the Project involve actions which will cause physical changes in the locality (topography, landuse, changes in water bodies, etc)?	Yes. The proposal is currently a disused quarry which will be levelled up to the level of the surrounding area. Even though the area currently has a soil cover, it will experience a change of use to agricultural.	Yes □ No ☒ Unclear □ No. Although the proposal will lead to a change in topography and land-use from a currently disused quarry to an area restored for agricultural use, no significant environmental impacts are being envisaged.	
2	Will construction or operation of the Project use natural resources such as land, water, materials or energy, especially any resources which are non-renewable or in short supply?	Yes. The development will utilise approximately 23,000 cubic metres of inert demolition waste for backfilling purposes, which will be checked prior to deposition, together with a 0.75 m top soil layer, which will be recycled/resued from within the area.	Yes □ No ☒ Unclear □ No. The use of such resources for this individual project <i>per se</i> is not likely to have a significant impact, given that demolition waste will be used for the backfilling operations.	
3	Will the Project involve use, storage, transport, handling or production of substances or materials or energy, especially any resources which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?	Yes. Fugitive dust emissions during the infilling process. This may have a temporary impact on the immediate surroundings. The PDS indicates that no storage of chemicals, oils, fuels and other hazardous substances on site will occur.	Yes No No Unclear No, the impact is not considered to be significant. Standard mitigation measures for dust control, which is a temporary impact, can be enforced in accordance with the Environmental Management Construction Site Regulations (S.L. 552.09), thus reducing impacts. Since no storage of harmful materials is envisaged, impact is not considered to be significant. However, if the need arises to store any hazardous material, mitigation measures can be adequately managed through a combination of standard design specifications that are to be covered by a valid development permit and an environmental registration, as necessary.	

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Num				
ber:		Briefly describe	Briefly justify	
4	Will the Project produce solid wastes during construction, operation or decommissioning?	The proposed development involves only the deposition of inert demolition waste, and the deposition of top soil. Inert waste will be checked prior to deposition and any waste that should not be used for the backfilling operations will be stored in a quarantine area awaiting removal by an authorised third part contractor. No storage of chemicals, oils, fuels and other hazardous substances on site will occur.	No significant impacts are envisaged, given that non-inert waste, separated from the incoming inert demolition waste, which is not authorised to be accepted on site, is temporary stored in a quarantined area which is adequately contained and sheltered from the elements. The design and location of this quarantine are to be approved by ERA, prior to the issuing of the development permit. The management of this eventual non-inert waste is subject to the provisions of the Waste Regulations, 2011 (S.L. 549.63) and Waste Management (Activity Registration) Regulations, 2007 (S.L. 549.45).	
5	Will the project release pollutants or any hazardous, toxic or noxious substances to air?	Yes. During construction: fugitive dust emissions from site backfilling and NO _x emissions from construction vehicles depositing the inert material. No impacts are expected during operation.	Yes □ No ☒ Unclear □ No. During the backfilling process, emissions are not considered to be significant. This phase will only take a few weeks and the backfill material shall be deposited by about 1000 HGV trips. Noise and dust-related impacts during construction are temporary and can be mitigated through the application of mitigation measures identified in the Environmental Management Construction Site Regulations (S.L. 552.09)	
6	Will the Project cause noise and vibration or release of light, heat, energy or electromagnetic radiation?		Yes □ No ☒ Unclear □ No. During the backfilling process, noise and vibration impacts are expected to be not significance and of a temporary nature (a net increase in the background noise generated by the works is considered to be negligible, due to sound attenuation in a quarry and its temporary nature). All construction vehicles should be kept in good state of repair, fitted with appropriate acoustic suppression equipment and serviced regularly to minimize exhaust and noise emissions. Standard mitigation measures during construction should be enforced in accordance with the Environmental Management Construction Site Regulations (S.L. 552.09)	
7	Will the Project lead to risks of contamination of	Yes, due to potential negative impacts from effluent leaching from uncovered non-inert	Yes □ No ☒ Unclear □ No significant impacts are envisaged, as long as the quarantine area, for	PDS,

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	land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal waters or the sea?	waste stockpiles within the quarry. The site lies within a Groundwater Safeguard Zone	temporarily storage of any incoming non- inert waste not authorised to be accepted on site, is adequately contained and sheltered from the elements. The design and location of this quarantine are to be approved by ERA, prior to the issuing of the development permit.	
8	Will there be any risk of accidents during construction or operation of the Project which could affect human health or the environment?	No increase in the risk of accidents is envisaged, other than 'normal' occupational risks typically associated with the proposed activity.	Yes □ No ⊠ Unclear □ No significant impacts are envisaged.	
9	Will the Project result in social changes for example, in demography, traditional lifestyles, employment?	No social changes by the project are envisaged.	Yes □ No ⊠ Unclear □ No significant changes are envisaged.	
10	Are there any such factors which should be considered such as the consequential development which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality?	Potentially yes. The PDS makes reference to the possibility of contacting the various utility service providers and the Local Council, if the need should arise, in order to ensure the seamless incorporation of the rest of the development with the existing infrastructural network, should planning permission be granted.	Yes No Unclear No significant impacts are envisaged given that the proposed development only includes the restoration of the quarry and reinstatement of agricultural use.	
11	Are there any areas on or around the location which are protected under international or national or local legislation for their ecological,	The site lies in an Outside Development Zone (ODZ) and within the 300m Groundwater Safeguard Zone, following regulation 7.3 of the Water Policy Framework Regulations (L.N. 194 of 2004	Yes □ No ☒ Unclear □ No significant impacts are envisaged given that the proposed site is already a committed and disturbed site. The proposed development seeks the restoration of a disused quarry and thus no further negative impacts on site are envisaged. The backfilling of the quarry will reinstate the natural characteristics of the site and not include any impermeable	

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	landscape, cultural or other value, which could be affected by the project?		lining of the current quarry void. Therefore, no alterations to the protected Groundwater Safeguard Zone are expected.	
12	Are there any areas on or around the location which are important or sensitive for reasons of their ecology e.g. wetlands, watercourses or other water bodies, the coastal zone, mountains, forests or woodlands, which could be affected by the project?	No such areas are present on or around the location of the proposed development.	Yes □ No ⊠ Unclear □ No significant impacts are envisaged.	
13	Are there any areas on or around the location which are used by protected, important or sensitive species of fauna or flora e.g. for breeding, nesting, over wintering, migration, which could be affected by the project?	No such areas are present on or around the location of the proposed development.	Yes □ No ⊠ Unclear □ No significant impacts are envisaged.	
14	Are there any inland, coastal, marine or underground waters on or around the location which could be affected by the project?	Yes. The site lies within the 300m Groundwater Safeguard Zone.	Yes □ No ☒ Unclear □ No significant impacts are envisaged, given that the proper management of potential pollutants (e.g. oils) in accordance with statutory procedures is expected to be sufficient to minimise environmental effects of the proposed use on the surrounding environment. Any possible impacts should be sufficiently mitigated through the application of mitigation measures identified in the Environmental	

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			Management Construction Site Regulations (S.L. 552.09).	
15	Are there any areas or features of high landscape or scenic value on or around the location which could be effected by the project?	No such areas are present on or around the location of the proposed development. The site is currently not visible except from the immediate vicinity, as it relates to a quarry located within a relatively flat area.	Yes □ No ⊠ Unclear □ No significant impacts are being envisaged.	
16	Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?	No such routes or facilities are present on or around the location of the proposed development. It is envisaged that the backfilling operations may result in some temporary inconveniences particularly to traffic along Triq tal-Balal that may be slowed down by HGVs entering and emerging from the site.	Yes □ No ☒ Unclear □ No significant impacts are being envisaged given that the increase in traffic of about 1000 HGVs will be temporary. Once the quarry is restored, no increase in traffic will be generated by the proposed development.	
17	Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected by the project?	The existing access arrangements, through Triq tal-Balal, will remain largely unchanged It is envisaged that the proposal will not result in any parking demand and does not warrant alternative arrangements in terms of transport, except for a temporary widening of the access abutting on Triq tal-Balal, to facilitate the entry and exit of HGVs. Barriers, lighting and signs will be provided to aid traffic management within the site.	Yes □ No ☒ Unclear □ No significant impacts are envisaged, given that the expected impact of the proposed development to the existing road network, in proportion to the overall baseline situation, will be limited.	
18	Is the project in a location where it is likely to be highly visible to many people?	No. The site has a very limited viewshed, due to the surrounding topography, and consequently it is not visible from the public road or from other areas frequented by the public. After the backfilling of the site and building of some retaining walls in rubble, only the rubble boundary wall will be visible. However, the development will be invisible to the main receptors, considered to be the workers	Yes □ No ⊠ Unclear □ No significant impacts are envisaged.	

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		and motorists in immediate surroundings and residents in the area.		
19	Are there any areas or features of historic or cultural importance on or around the location which could be affected by the project?	The proposal does not involve the removal of existing structures on site. Boundary walls will be reinstated with random rubble, to maintain the traditional attributes and improve the rural landscape in the area.	Yes □ No ☒ Unclear □ No significant impacts are envisaged, given that the existing rubble walls are to be retained. Additional retaining walls will be built in rubble to blend in with the surroundings.	
20	Is the project located in a previously undeveloped area where there will be loss of greenfield land?	Yes, but the site will remain greenfield land. The proposal has a site area of approximately 4,090 sqm, on a site previously used for quarry operations and afterwards used for agriculture. The soil layer, which will be removed prior the backfilling process, stored on site and re-used for covering the area with top soil, to enable the use of agriculture again.	Yes □ No ⊠ Unclear □ No significant impacts are envisaged.	
21	Are there existing land uses on or around the location e.g. homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities, agriculture, forestry, tourism, mining or quarrying which could be affected by the project?	No such areas are present on or around the location of the proposed development.	Yes □ No ⊠ Unclear □ No significant impacts are envisaged.	

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22	Are there any plans for future land uses on or around the location which could be affected by the project?	No such future uses are envisaged or known of.	Yes □ No ⊠ Unclear □ No significant impacts are envisaged.	
23	Are there any areas on or around the location which are densely populated or built up, which could be affected by the project?	No such areas are present on or around the location of the proposed development.	Yes □ No ⊠ Unclear □ No significant impacts are envisaged.	
24	Are there any areas on or around the location, which are occupied by sensitive land uses e.g. hospitals, schools, places of worship, community facilities which could be affected by the project?	No such areas are present on or around the location of the proposed development.	Yes □ No ⊠ Unclear □ No significant impacts are envisaged.	
25	Are there any areas on or around the location which contain important, high quality or scarce resources e.g. groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, which could be affected by the project?	Yes. The site lies within the 300m Groundwater Safeguard Zone. Fertile soil is to be removed from the top layer of the area and deposited back after the finalisation of the backfilling process.	Yes □ No ☒ Unclear □ No significant impacts are envisaged, given that the proper management of potential pollutants (e.g. oils) in accordance with statutory procedures is expected to be sufficient to minimise environmental effects of the proposed use on the surrounding environment. Any possible impacts should be sufficiently mitigated through the application of mitigation measures identified in the Environmental Management Construction Site Regulations (S.L. 552.09). The applicant must make sure to follow the Fertile Soil (Preservation) Act, whilst removing, storing and depositing back the soil on site.	
26	Are there any areas on or around the	No such areas are present on or around the location of the proposed development.	Yes □ No ⊠ Unclear □ No significant impacts are envisaged.	

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	location which have already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded, which could be affected by the project?			
27	Is the project location susceptible to earthquakes, or subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions e.g. temperature inversions, fogs, severe winds, which could cause the project to present environmental problems?	No. No such events are likely to occur in this area given its location, topography and surrounding environmental context.	Yes No Unclear No significant impacts are envisaged.	

4. EIA Screening Conclusion and recommended way forward

4.1 EIA screening conclusion

The proposal falls within the scope of Schedule IA, Category II Section 5.3.2.1 of the EIA Regulations (S.L. 549.46), however following detailed screening in accordance with Schedule IB of the same Regulations and matrix above, the proposal does not require an EIA given that no significant environmental impacts have been identified. In this regard, the proposal qualifies for the exemption process established in the EIA Regulations, 2007 as per Regulation 3(8) of S.L. 549.46.

That being said, basic mitigation measures (as outlined in the above screening matrix) are to be duly addressed in the development permitting process namely:

- The prevention and mitigation of accidental leaks managed through the adequate application of waste management procedures on site;
- The management of hazardous wastes in accordance with statutory procedures to minimise environmental effects of the proposed use on the surrounding environment, and
- The safeguard that proposed activity is strictly confined to the site.

4.2 Pending Further Clarifications / Submissions (Required pre-development permission)

The Applicant is required to provide further information and updated drawings/sections. Such requests would need to be addressed as part of the project design in order to ensure that activities meet particular environmental standards related to their operation.

- 1. Kindly indicate the design details and location of the proposed quarantine area on a revised plan. The quarantine area is to temporarily store any incoming non-inert waste, which is not authorised to be accepted on site. This area shall be contained and sheltered from the elements. .
- 2. Management procedures for wash water arising from the wheel wash facility (if applicable), are to be provided. Applicant is to clarify the source of water used for the wheel wash and its final discharge point, including the method of separation of the solid and liquid fractions, through a sedimentation tank.
- 3. The revised plans are to include the location of all temporary structural requirements, if any, for the carrying out of backfilling operations, namely: site office, weighbridge, wheel washing facility, temporary waste separation and storage area for non-inert waste streams prior to off-site disposal, etc.

4.3 Proposed ERA Conditions

- 1. Quarry backfilling operations require an Environmental Permit with ERA's Environmental Permitting Unit as per Waste Management (Management of Waste from Extractive Industries and Backfilling) Regulations, 2009 (S.L. 549.50). If it is confirmed that the facility will include an industrial complex, the environmental permit for backfilling will need to be adapted to a GBR for the industrial complex. Applicant is to be requested to immediately contact the Environmental Permitting Unit to discuss the requirements of this permit. Kindly note that the ERA would not be in a position to recommend the proposal favourably should the environmental permitting requirements not be fulfilled accordingly.
- 2. The executable version of this development permission together with the approved plans and commencement notice shall not be issued until such time that the applicant submits a written acknowledgement from the Environment and Resources Authority (ERA) confirming that an application for an environmental permit has been submitted and validated by ERA. Such time shall not be later than 3 calendar months from the issuing of the non-executable development permit.
- 3. In view that the proposal may involve interventions on protected trees, the proposed operation or activity may require to be permitted in line with the Trees and Woodlands Protection Regulations 2011 (S.L. 549.64). Given that site photos indicate various trees on site, the Applicant is to be requested to immediately contact the Environmental Permitting Unit to discuss the relevant requirements.
- 4. The applicant is also advised to note that clearance/consultation from other authorities may be required:
 - a. WSC, in view of the potential requirement of a sewer discharge permit; and
 - b. REWS, in view of energy/ fuel storage issues/ in view of registration of borehole.

Construction works

5. All works covered by this development permit shall be restricted to the area shown on the site plan at Doc. PA/02013/16/1a and drawings at Doc. PA/02013/16/24c-d with the intent of servicing legally approved structures. Works outside the area shown on the site plan at Doc. PA/02013/16/1a are prohibited and there shall be no overspills or vehicular trampling/manoeuvring outside the permitted area.

Waste management

- 6. All quarry operations including landfilling activities, concerning the management of waste, are subject to the legal provisions of the Waste Management (Management of Waste from Extractive Industries and Backfilling) Regulations, 2009 (S.L.549.50), the Waste Regulations, 2011 (S.L.549.63) and the Waste Management (Activity Registration) Regulations, 2007 (S.L.549.45). Inert waste material resulting from construction and demolition may be reused as fill material within the site as long as such reuse is in line with the approved plans and other conditions of this permit, or shall be deposited at facilities duly permitted by ERA and in accordance with the above-mentioned regulations.
- 7. All wastes shall be separated according to the different waste streams as per EWC codes as defined in Commission Decision 2000/532/EC, and deposited in sites permitted by ERA to accept such wastes; wastes to be recycled should be stored in a designated container or area and not mixed with other wastes
- 8. Any vegetation and non-inert waste on the site where the infilling will be carried shall be collected within appropriate containers and disposed of at sites duly licensed for that particular waste stream prior to the commencement of backfilling operations.
- 9. All storage of materials or waste shall take place only in locations where thorough clean-up and site reinstatement can be readily undertaken.
- 10. All stockpiles of waste material are to be positioned in such a way as to avoid contamination of air and/or water through wind and/or runoff respectively. Dust and mud suppression equipment shall be installed in stockpiling area. Measures shall be taken to ensure that the vehicles leaving the site/engaged in the construction works do not deposit mud, rubble or other materials on public roads.

External lighting

- 11. The permitted development shall not be a source of light pollution, especially at night;
 - Lighting shall be strictly limited to within the developed part of the site, and its height and orientation shall be designed in a manner that it does not cause illumination beyond the development site;
 - ii. There shall be no lighting of access roads, tracks and paths leading to the site or other lighting beyond the site boundary;
 - iii. The lighting fittings and their supports shall be installed on the inner side of any peripheral landscaping, so as to be screened by the landscaping itself;
 - iv. All exterior lighting installed on site is to be downward-pointing and full cut-off. No luminaire globes or uplighters are allowed, and
 - v. Exterior lighting shall be intruder-triggered, so as to avoid continuous nocturnal lighting.

Soil

12. Any soil on the site shall not be built over and shall be collected for re-use in accordance with the Fertile Soil (Preservation) Act, 1973. A permit from the Director of Agriculture may be required to remove the soil from the site and to transport it to a different location. This condition does not exonerate the applicant, contractor or any other relevant party from complying with all permitting requirements as may be applicable for deposition of the removed soil onto other land. In particular, the deposition and reuse of any soil removed from the site shall be approved in advance by ERA if it would involve deposition or re-use in any site which is located Outside Development Zones or within a scheduled or otherwise legally protected site or if the soil is to be used for land reclamation.

4.4 Screening Disclaimer

The above screening results, the ensuing conclusions and recommendations are without prejudice to any required changes or updates should the development proposal be eventually modified or should the information/assumptions provided turn out to be incorrect. Any deviations of the proposal from this submission would need to be re-assessed and the merits of this screening would need to be re-opened.