

Appendix I - EIA Screening

PA file no.: TRK 156020

Other reference: EA0007/15

Project Title: To convert quarry into agricultural field.

Location: Site at Ta' Sant Agata sive Ta Sgamardi, Sqaq tad-Debbiet, Sqaq Ta' Sant Agata, Tad-Debbiet, Siggiewi, Malta.

Screening date: February 2015

1. Description of Proposal

1.1 Outline of project/development

TRK. 156020 is a development application which proposes to convert quarry into agricultural field located in an area to the south east of Siggiewi known as Ta' Sgamardi (refer to Figure 1). The proposed development involves the following works:

- Removal of existing trees and other vegetation from the quarry;
- Preparation of the quarry for landfilling as indicated in the Deposit of Wastes and Rubble (Fees) Regulations (Legal Notice 128 of 1997) and the Waste Management (Landfill) Regulations (Legal Notice 168 of 2002);
- Filling up of the quarry with inert waste from construction sites in accordance with the Inert Waste Disposal in Quarries guidance;
- Topping up of the inert waste layers with a layer of soil;
- Construction of a rubble wall along the boundary of the whole site area. The existing rubble walls which delineate the boundary between the site and adjacent properties would be retained and repaired where required. These aspect of the works will be carried out have to be constructed/reinstated in recycled stone as per new policy document - Rural Policy and Design Guidance 2014; and
- Installation of a timber gate at the access point of the site as indicated in the annexed architectural plans.

There is good accessibility through the existing local access and distributor road network to the quarry site and has no existing utilities on site since the site is disused. However, the site can be easily connected to the existing government main power grid and water supply. The eastern area of the site has a water catchment area and the applicant is proposing that part of this area will be retained as a water reservoir which will be used as an irrigation source for the whole site when it is fully restored to an agricultural area.

1.2 Site description and related considerations

The site is located at Siggiewi and has an approximate site area of 9,700 sqm. The quarry has been subject to 24 years of mineral extraction of the Globigerina Limestone geological member however has been abandoned for the past 14 years (refer to Figures 2 and 3).

Most of the land in the area is presently being used for quarrying purposes, used to be agricultural land in the past. To the north and north east, the quarry site is bounded by other operating and disused quarry sites which form part of a valley system, supporting very limited agricultural land parcels. The west and eastern perimeters are supported by agricultural land parcels some of which are actively being used for agricultural purposes and others are abandoned. The southern areas around the site are occupied by agricultural land parcels.

The site falls Outside Development Zone (ODZ) and is within a drinking water safeguarding zone (Malta Resources Authority). The site also lies approximately:

- 100m from proposed Wied Xkora to Wied il-Kbir Level 3 Area of Ecological Importance (AEI) Buffer Zone;

- 125m from Wied Qirda and Wied il-Kbir Area of High Landscape Value (AHLV) - SMCO 06;
- 125m from proposed Wied Xkora to Wied il-Kbir Level 2 Area of Ecological Importance (AEI) Buffer Zone; and
- 250m west from Wied Xkora which forms part of the Wied il-Kbir river valley system.

The proposal lies approximately 430 metres from the built-up area of Siggiewi.



Figure 1: Aerial image of the site and its surroundings.



Figure 2: Aerial image of the site as in 2012.



Figure 3: Aerial image of the site as in 1998.

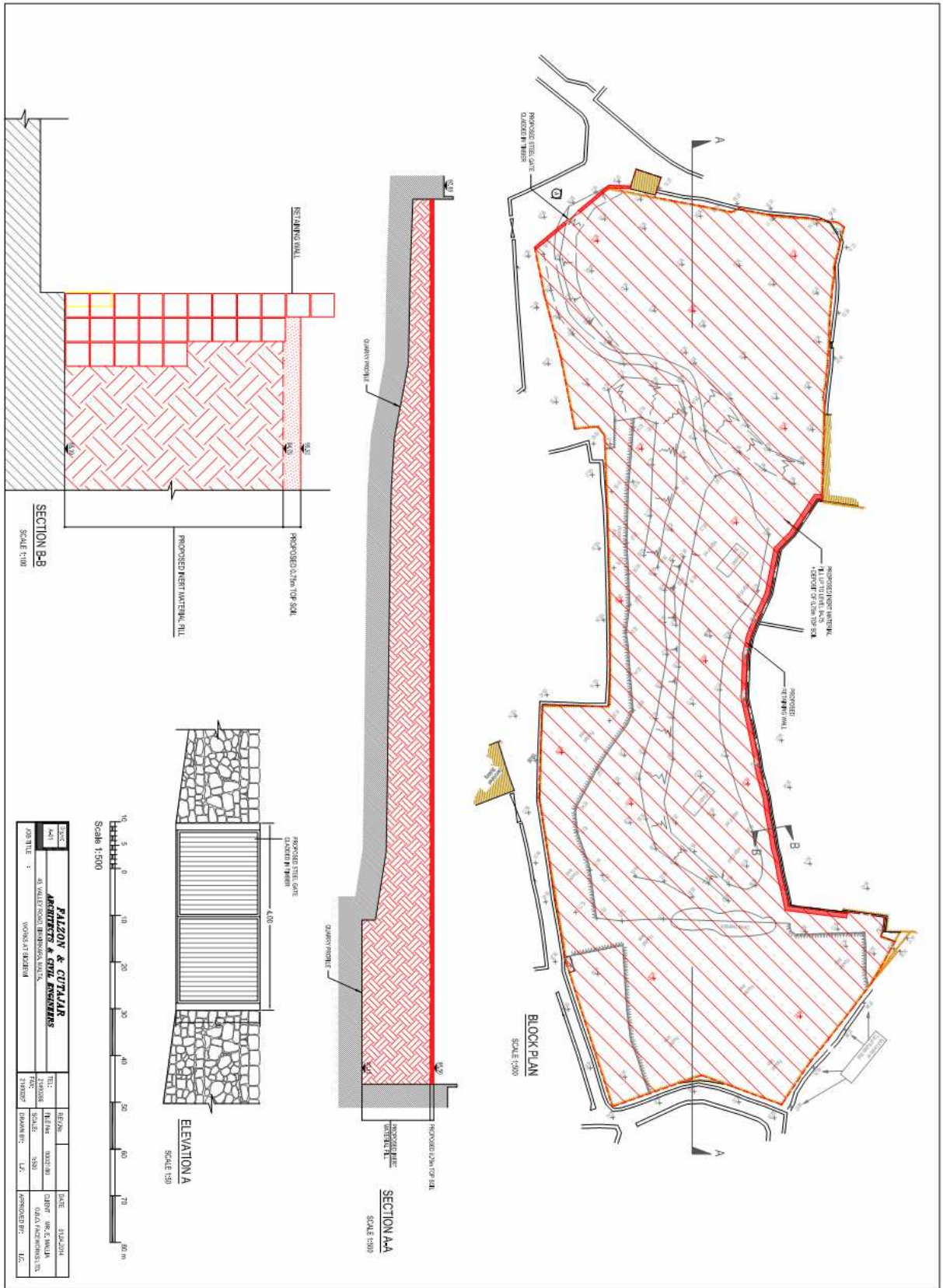


Figure 4: Proposed Block Plan.

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 criteria 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:

1. PDS dated 20th January 2015 (refereed to EPD on 30th January 2015);
2. Plans and Diagrams in Min. 25a-i dated 20th January 2015.

2. Screening Matrix

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
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 with a surface area of approximately 9,700 square meters which has been abandoned for the past 14 years. The existing disused quarry forms part of a group of quarries in the area. During the period for the extraction of mineral resources, the quarry has been subject to infilling of mineral waste from the adjacent quarrying activity. It has been estimated that around 6,900 cubic meters of mineral wastes have been dumped in the existing quarry site which amount to around 8% of the total void space.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No. The proposal will lead to the restoration of the pre-existing topography and a reversion of the site to agricultural use, thus keeping with the surrounding cultivable fields.	PDS Pg. 5-9, 39
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 proposal will be backfilled with inert waste, and topped up with soil. Infill material will be crushed and well graded, depending on its size before being infilled. The proposal also involves the use of electricity and water.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No. The use of such resources for this individual project per se is not likely to have a significant impact given that the infill material will be inert waste (most likely originating from excavated development sites).	PDS Pg.25 – 26, 29, and 30.
3	Will the Project involve use, storage, transport, handling or production of substances or materials or energy, especially any resources which	Yes. Fugitive dust emissions during the infilling phase. Such activity may have a temporary impact on the immediate surroundings. During operation, no adverse environmental impacts are foreseen.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No, the impact is not considered to be significant given that the proposal is surrounded by agricultural land and a number of quarries (some of which are disused). Standard mitigation measures for dust control, which is a temporary impact, should be enforced in accordance with the Environmental Management Construction Site Regulations 2007, thus	PDS Pg. 32-33

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
	could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?		reducing impacts. Such mitigations measures include minimisation of stockpiling of inert waste and spraying with water.	
4	Will the Project produce solid wastes during construction, operation or decommissioning ?	<p>No. The proposed development mainly involves the deposition of inert waste material, which would be separated at source, and the deposition of top soil.</p> <p>During operation, no temporary storage of non-inert waste will be required.</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/></p> <p>No. Considering the scale, nature and size of the proposal, the amount of wastes likely to be produced during construction are not considered to be significant. The management of waste is subject to the provisions of Legal Notice 184 of 2011 [Environment and Development Planning Act (Cap. 504) - The Waste Regulations, 2011] as amended by Legal Notice 441 of 2011 [Environment and Development Planning Act (Cap. 504) The Waste (Amendment) Regulations, 2011] and Legal Notice 106 of 2007 [Environment Protection Act (CAP. 345) –Waste Management (Activity Registration) Regulations, 2007].</p> <p>According to the PDS, the site will be landfilled with clean inert waste material originating from construction sites. Such activity will be further mitigated through an environmental permit.</p> <p>No significant waste will be generated following the completion of restoration works.</p>	PDS pg 20, 39.
5	Will the project release pollutants or any hazardous, toxic or noxious substances to air?	<p>Yes. During construction: fugitive dust emissions from the quarry restoration works, and NO_x from construction vehicles.</p> <p>During operation, no major NO_x generation from any operational traffic is expected given the proposed agricultural use.</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/></p> <p>No. During the infilling process, emissions are not considered to be significant. 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 (Legal Notice 295 of 2007).</p> <p>No significant impacts are expected during operation in view of the nature of the proposal (viz. restoration to agricultural land) and in view of the negligible traffic associated with the proposed use.</p>	PDS pg 30, 36-38
6	Will the Project cause noise and	Yes. Noise and vibration during the quarry infilling phase,	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/></p>	PDS pg 36-38

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
	vibration or release of light, heat, energy or electromagnetic radiation?	mostly from heavy machinery / vehicles during operating hours. During operation, no impacts are envisaged.	No. During the infilling process, noise and vibration impacts are expected to be of minor significance and of a temporary nature (noise generated by the works and the cumulative noise is considered to be negligible, due to sound attenuation in a quarry and is of a 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, 2007. No significant impacts are expected during the operational phase of the proposal.	
7	Will the Project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal waters or the sea?	Yes. The site falls within a drinking water safeguarding zone (Malta Resources Authority). The project, namely during infilling, may theoretically increase the risk of contamination of water through the potential release of contaminated leachate, such as oils and fuels which may drip from the vehicles into the surrounding environment.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No. The implementation of appropriate methods (namely related to infilling) and operational measures should ensure that there is no percolation of such waste into the groundwater. Any spillages can be effectively prevented through the application of mitigation measures identified in the Environmental Management Construction Site Regulations, 2007 and through the implementation of an environmental permit. No impacts are envisaged during the operational process.	PDS pg 16-17, 33, 39
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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant impacts are envisaged.	/
9	Will the Project result in social changes for example, in demography, traditional lifestyles, employment?	No. Considering the scale, nature and location of the project, the proposed development is not expected to lead to significant demographic or social changes.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant changes are expected.	/

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
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?	None that are known of. The site is located in an area that is notorious for the quarrying industry and therefore the restoration of the quarry back to agricultural is deemed beneficial.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant impacts are being envisaged.	/
11	Are there any areas on or around the location which are protected under international or national or local legislation for their ecological, landscape, cultural or other value, which could be affected by the project?	The site falls Outside Development Zone (ODZ) and lies within a drinking water safeguarding zone (Malta Resources Authority). The site is also approximately 125m from Wied Qirda and Wied il-Kbir Area of High Landscape Value (AHLV) - SMCO 06;	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant impacts are envisaged given that the site is already a committed and heavily disturbed. In addition, given that the proposed development seeks the restoration of a disused quarry back to agriculture, actual positive impacts on the site's surroundings are envisaged. The Superintendence of Cultural Heritage (SCH) is to be consulted through the development planning process.	PDS pg 12-13
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?	Reply to Question 11 refers. Furthermore, the site lies: <ul style="list-style-type: none"> - 100m from proposed Wied Xkora to Wied il-Kbir Level 3 Area of Ecological Importance (AEI) Buffer Zone; - 125m from proposed Wied Xkora to Wied il-Kbir Level 2 Area of Ecological Importance (AEI) Buffer Zone; and - 250m west from Wied Xkora which forms part of the Wied il-Kbir river valley system. 	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No. Refer to Question 11 above.	/
13	Are there any areas on or around the location which are used by protected,	No. Reply to Questions 11 and 12 refer.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No. Refer to Question 11 above.	/

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
	important or sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the project?			
14	Are there any inland, coastal, marine or underground waters on or around the location which could be affected by the project?	Yes. Comments in Question 7 refer.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant impacts are envisaged, and 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. This aspect needs to be enforced through the development and environmental permitting mechanisms.	/
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?	Yes. The site is 125m from Wied Qirda and Wied il-Kbir Area of High Landscape Value (AHLV) - SMCO 06.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant impacts are being envisaged. Furthermore, the limited impacts of the intervention are of a beneficial nature in terms of contribution to restoration of a heavily degraded landscape.	/
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?	Yes, albeit limitedly. The site is accessible through existing local access and distributor road network to the quarry site.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant impacts are envisaged as the development is not expected to entail any substantial increase in traffic.	PDS Pg. 36-38
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?	No. Reply to Question 16 refers; the road in question is not particularly susceptible to congestion.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> Reply to Question 16 refers.	/

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
18	Is the project in a location where it is likely to be highly visible to many people?	No. The site is located within an area dominated with quarrying related activities and is not located within a prominent location. Furthermore, the proposal is limited to the infilling and restoration of a disused quarry below ground level.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant impacts are envisaged.	/
19	Are there any areas or features of historic or cultural importance on or around the location which could be affected by the project?	No further areas or features of historic or cultural importance on or around the location were identified other than those acknowledged in Question 11. It is to be noted that along the access road towards the site, lie two properties with a <i>muxarabija</i> . Heavy good vehicles travelling to the site with infill material may damage such structures.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant impacts are expected, subject to consultation (through the development permitting process) with the Superintendence of Cultural Heritage (SCH). With respect to the two properties with a <i>muxarabija</i> , particular care must be taken by construction vehicles not to damage such buildings.	Feedback received through Internal Consultation
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 9,700sqm, on a site previously used for quarry operations. The quarry will be restored to agricultural land.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> 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?	Yes. The site lies approximately 430 metres from the built-up area of Siggiewi.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No major significant impacts are envisaged given the scale and nature (restoration) of the proposal, and the distance from the settlements in question. Residual impact in terms of traffic from heavy vehicles related to infilling is considered minimal relative to the current quarrying-dominated baseline.	/
22	Are there any plans for future land uses on or around the location which could be affected	No such future uses are envisaged or known of.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant impacts are envisaged.	/

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
	by the project?			
23	Are there any areas on or around the location which are densely populated or built up, which could be affected by the project?	Reply to Question 21 refers.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> Reply to Question 21 refers.	/
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 within the area of influence of the proposed development. The proposal is approximately 430 metres from the built-up area of Siggiewi.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> 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?	Reply to Question 14 refers.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> Reply to Question 14 refers. No significant impacts are envisaged.	/
26	Are there any areas on or around the location which have already subject to pollution or environmental damage e.g. where existing legal	Yes. Quarrying in the surrounding area has substantially modified much of the rural landscape.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant impacts envisaged, other than beneficial impacts in terms of restoration of one of the existing scars in the landscape.	/

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
	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, site geology and surrounding environmental context.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> <hr/> No significant impacts are envisaged.	/