

# Environmental Impact Assessment

## Screening

(According to Schedule IB of LN 114/2007, as amended)

<b>PA file no.:</b>	TRK 159681
<b>Other reference:</b>	EA 00019/15
<b>Project Title:</b>	Proposed fuel service station, including storage at basement level, class 4b shop, tyre service garage, ATM and car wash facilities at ground floor level.
<b>Location:</b>	Site at, Triq Burmarrad, Burmarrad, San Pawl il-Baħar, Malta
<b>Screening date:</b>	May 2015

### 1. Description of Proposal

#### 1.1 Outline of project/development

TRK 159681 is a pre-screening application for the construction of a fuel service station, including storage at basement level, class 4b shop, tyre service garage, ATM and car wash facilities at ground floor level at, Triq Burmarrad, Burmarrad, San Pawl il-Baħar, Malta.

The proposal consists of two levels, an underground level used for storage and areas for separators, fuel tanks and water reservoirs. The ground floor level will include an ATM machine, fuel pumps, gas filling station, electrical car charging facility, shop and tyre service garage, security room, landscaped areas, car wash facilities and parking bays. The car wash facility, drying areas and fuel pumps will be covered with separate canopies.

There are water, sewage and electrical services along Triq Burmarrad, which is the road leading to the proposed.

#### 1.2 Site description and related considerations

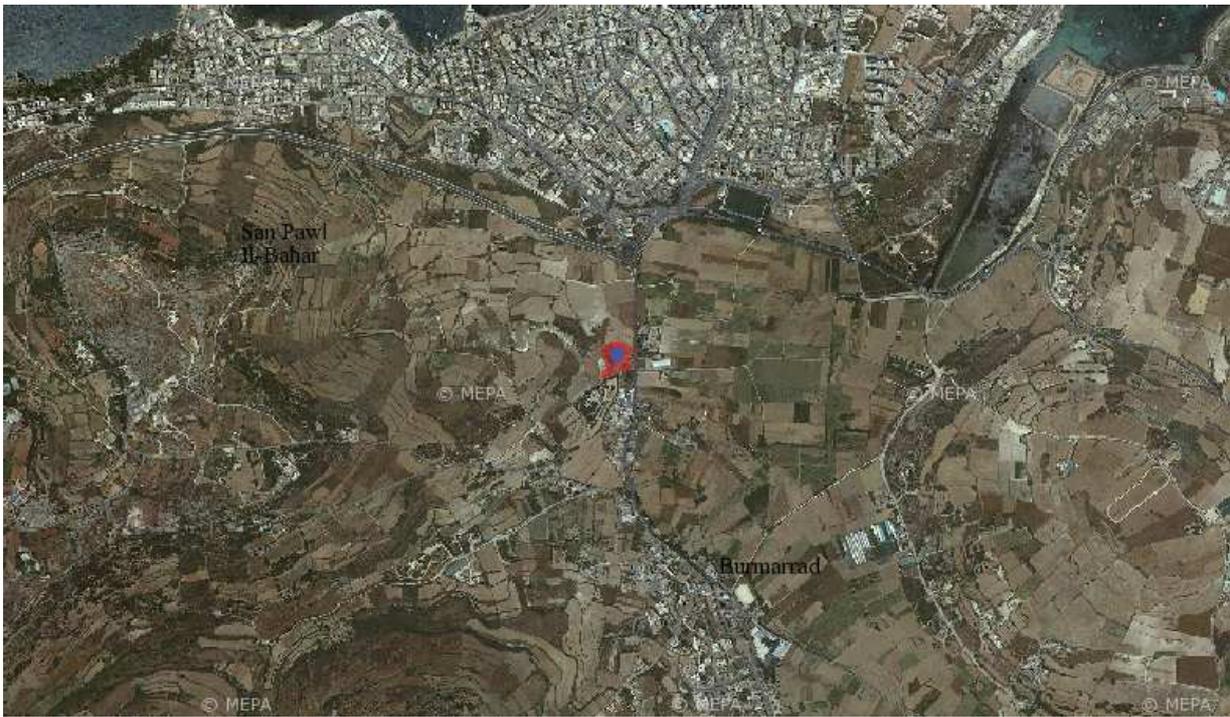
The site is located just off Triq Burmarrad, an arterial road which leads to the village of San Pawl il-Baħar and has an approximate site area of 3,222 sqm. Currently (Figure 2), the site is mainly made up of an abandoned field a few meters situated alongside an alley leading to a villa and a number of fields.

The adjacent land uses are mainly agricultural in nature, the only exceptions being that of a residential villa a few metres uphill along the entrance to the site. Two other residences are located about 200m south west of the proposed development and a cemetery is found about 50m to the north east.

The site lies Outside Development Zone (ODZ), approximately 250 metres from the built-up area of San Pawl il-Baħar and approximately 350 metres from the built-up area of Burmarrad. The site falls within an Area of Agricultural Value (as per Local Plan policy NWAG 01) and adjacent to an Area of Containment. Although the site does not fall within any listed archeologically sensitive areas or area of ecological importance, it lies:

- adjacent to a proposed for scheduling single storey military pillbox;
- 300 meters (east from site) from the proposed for scheduling il-Ħajt tal-Vjatku; and
- 900 metres (east from site) from Salini Category IB Area of Ecological Importance/Site of Scientific Importance (Government Notice 402 of 1996).

Figures 1 and 2 below indicate the location of the proposed development:



**Figure 1: Location of the site earmarked for the proposed fuel station (Source: MEPA Mapserver)**



**Figure 2: Close-up of the site and its immediate surrounds (Source: MEPA Mapserver)**



## 2. EIA-relevant history

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

At EPD screening stage (Minute 24 in file), the proposed development was deemed to qualify for an EPS as per Schedule IA, Category 7.6.2.6 of the EIA Regulations, 2007 (L.N. 114 of 2007, as amended) and thus the submission of a Project Description Statement (PDS) was required.

It should also be noted that EPD is concerned with regards to the proposal since the overall development/interventions will commit the whole site and introduce unnecessary and excessive formalization, and uptake of land ODZ (minute 24 in file refers).

### **2.2 Version of documents used for screening:**

1. PDS dated 8<sup>th</sup> April 2015;
2. Plans and Diagrams in Min. 31a-f dated 7<sup>th</sup> April 2015.

## 3. Screening Matrix

	<b>Issues to be considered</b>	<b>Relevant constraints, environmental considerations &amp; potential impacts</b>	<b>Is any significant effect envisaged?</b>	<b>Document reference</b>
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. Site earmarked for the proposal is currently an abandoned field which falls under an Area of Agricultural Value (NWAG 01 as per Map 4).	<b>Yes <input checked="" type="checkbox"/></b> No <input type="checkbox"/> Unclear <input type="checkbox"/>  In terms of topography and physical changes to the site, the proposed development will lead to a significant change in the landscape and visual amenity of the site. Furthermore, as indicated in earlier EPD correspondence (minute 24 in file), the proposal shall lead to unnecessary and excessive formalisation of land ODZ that is not considered acceptable. In this regard, impact is considered to be significant.	PDS Pg. 10
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 take up approximately 3,222 sqm of land outside development zone. The proposal includes the use of masonry blocks, concrete, steel reinforcement and surfacing material during construction and of water and electricity during operations.	Yes <input type="checkbox"/> <b>No <input checked="" type="checkbox"/></b> Unclear <input type="checkbox"/>  The use of such resources for this individual project <i>per se</i> is not likely to have a significant impact, particularly since the amounts expected to be used are minimal.  The energy requirements of the project are expected to be minimal thus no significant impact is envisaged.	PDS Pg. 10, 28-30
3	Will the Project involve use, storage, transport, handling or production of substances or materials or energy, especially any resources which	Yes, the project will entail the transportation of fuel to the site, the storage and supply (through retail) of same fuel. Fumes and/or vapour emissions (including VOCs) are thus expected to be emitted. Furthermore, petrol, diesel and gas (lpg) are classified as hazardous substances.	Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Unclear <input checked="" type="checkbox"/></b>  It is unclear on whether the project is likely to have significant effects on the air quality of the area, in terms of additional fumes and/or vapour emissions (including VOCs) generated, possibly being detrimental to the health of the surrounding residents. Also, the project will introduce the handling of hazardous substances and higher levels of benzene	PDS Pg. 21, 24

	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?		and VOCs, among others in proximity to residential areas.	
4	Will the Project produce solid wastes during construction, operation or decommissioning ?	<p>Yes. During the construction phase, inert waste is expected to be generated during the site clearing and excavation works. The remaining construction phase will generate nominal inert waste, concrete, steel and other materials. It is being estimated that circa 14,521 cubic metres of demolition and excavation waste will be produced.</p> <p>During the operation phase, the solid wastes created are expected to be normal municipal waste and waste oils. Waste arising from the car wash and the underground store are not known at this stage.</p>	<p>Yes <input type="checkbox"/> <b>No <input checked="" type="checkbox"/></b> Unclear <input type="checkbox"/></p> <hr/> <p>No. The amounts of solid wastes likely to be produced by the project during construction of the project are not likely to be significant, considering the nature of the project (petrol station). The quantities and nature of the waste produced are likely to be manageable through established waste management procedures and facilities. Furthermore, the management of waste is subject to the provisions of the Waste Regulations, 2011 (Legal Notice 184 of 2011, as amended by as amended by Legal Notices 441 of 2011, 384 of 2012 and 6 of 2014.), the Waste Management (Activity Registration) Regulations, 2007 (Legal Notice 106 of 2007)</p> <p>No significant solid wastes shall be generated during operation.</p>	PDS Pg. 28-31
5	Will the project release pollutants or any hazardous, toxic or noxious substances to air?	Yes. Dust may be released during site clearing and excavation. Emissions, including fumes and/or vapour emissions (including VOCs), during operation of the fuel petrol station are expected. It is further noted that petrol vapours contain benzene which is classified as a carcinogen.	<p>Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Unclear <input checked="" type="checkbox"/></b></p> <hr/> <p>Unclear. Impacts associated with dust generation during the construction phase are not considered to be of major significance, given the amounts of excavations required for the proposal, and as long as the construction phase of the project respects the requirements of the Environmental Management Construction Site Regulations, 2007 (Legal Notice 295 of 2007, as amended by Legal Notices 358, 371 and 426 of 2007; Act XV of 2009; and Legal Notice 426 of 2012.)</p> <p>During operation, the project is likely to introduce higher levels of benzene (a carcinogen) and VOCs amongst others. These emissions are directly related to the operation of the fuel filling service station. The significance of the impacts arising from increased levels of benzene and VOC pollutants on residences in proximity to the site is unclear.</p>	PDS Pg. 31-35
6	Will the Project cause noise and vibration or	Yes. The project will be the source of noise and vibration during both the construction and	<p>Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Unclear <input checked="" type="checkbox"/></b></p> <hr/> <p>It is unclear whether the noise and</p>	PDS Pg. 31-35

	<b>Issues to be considered</b>	<b>Relevant constraints, environmental considerations &amp; potential impacts</b>	<b>Is any significant effect envisaged?</b>	<b>Document reference</b>
	release of light, heat, energy or electromagnetic radiation?	the operation phase of the project. Noises and vibration during operation are expected to result from the operation of the fuel pumps, car wash, commercial facility and storage area.	vibration impacts will be significant. The project will result in the introduction of new machinery and activity in an area that is not currently characterised by this type of activity, and hence the impact from the net increase in environmental noise in the area and on the immediate surrounding uses is considered to be unclear.	
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. There is a risk of surface contamination of land and water, including groundwater due to fuel spillages and runoff, as well as in the event of any leakage from the storage tanks.	Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Unclear <input checked="" type="checkbox"/></b>  Unclear. The potential impacts resulting from the proposal are not known. Whilst noting that the proposal involves a potential high contamination activity; the PDS indicates that risks of surface contamination due to fuel spillage may be adequately mitigated as follows: (i) fuel and oil interceptors; and (ii) leakage detection systems for the underground fuel tanks.	PDS Pg. 34
8	Will there be any risk of accidents during construction or operation of the Project which could affect human health or the environment?	Yes. Mainly risks during operation due to potential leaks, emissions, polluted runoff from the site, and other worst-case scenarios such as fires or explosions.	Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Unclear <input checked="" type="checkbox"/></b>  It is unclear whether the project is likely to result in significant impacts vis-à-vis the existing baseline situation. The project will introduce increased risks vis-à-vis fuel leaks, and the emission of benzene, and VOCs).	/
9	Will the Project result in social changes for example, in demography, traditional lifestyles, employment?	Yes, the project will result in the increased number of people and vehicles stopping in the area to service their cars, and access the commercial service area.  On the other hand, no changes in demography are expected given the nature of the proposed development.	Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Unclear <input checked="" type="checkbox"/></b>  The project is not likely to result in significant social changes. It is however noted that the project may contribute to a number of environmental impacts which are considered to be unclear at this stage. Replies to Questions 4, 5 and 6 refer.	/
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?	Yes. The introduction of a fuel station and associated facilities in an area which is still relatively undeveloped is likely to introduce eventual pressures for further development in the area especially the potential expansion of nearby Area of Containment.	Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Unclear <input checked="" type="checkbox"/></b>  The longer-term implications of the proposal are unclear and would need to be investigated further.	/

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
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?	No formally protected areas for ecological, scenic or landscape, or cultural value are present on site. However, it is noted that the site falls in an otherwise predominantly undeveloped area located outside the development zone (ODZ), where there is a general presumption against new built development.	Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Unclear <input checked="" type="checkbox"/></b>  The impacts envisaged are unclear. The proposed project consists of the take up of a considerable amount of undeveloped land falling outside the committed development zone, in a prominent location.	/
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?	Yes. Although the proposal is located 900 metres from the Salini Category IB Area of Ecological Importance/Site of Scientific Importance (Government Notice 402 of 1996), it is situated within its catchment area. Reply to Question 13 refers.	Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Unclear <input checked="" type="checkbox"/></b>  Reply to Question 13 refers.	/
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, foraging, resting, overwintering, migration, which could be affected by the project?	Yes. The proposed site lies in the catchment area of the Salini Category IB AEI/SSI; and which hosts a number of habitats of ecological importance including Mediterranean salt meadows, Mediterranean and thermo-Atlantic halophilous scrubs, and Southern riparian galleries and thickets. A number of protected, threatened or rare flora, some of which have a restricted distribution are also found in the SAC, including <i>Ruppia maritima</i> (RDB – E locally), <i>Orobancha cernua</i> (RDB – RR locally), <i>Heliobia stagnorum</i> (RDB – E locally), <i>Melanoides tuberculata</i> (RDB – E (?) locally), <i>Hydrobia acuta</i> (RDB – E locally) and <i>Ventrosia ventrosa</i> (RDB – V locally).  Based on the data available, protected fauna found in the area include the endemic	Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Unclear <input checked="" type="checkbox"/></b>  Contamination of surface and groundwater may have a significant impact on protected species. A reduction in the amount of water infiltration may also significantly adversely impact protected, threatened or rare species by increasing competition as a result of a reduction of resource availability, desiccation and an increase in salinity.  The degree of significant of impact on protected, threatened or rare species cannot be determined based on the data presently available.	Internal Consultation

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
		<p><i>Aphanius fasciatus</i> (RDB – V locally), the conservation status of which has been established as bad and deteriorating within the Salini area; and the sub-endemic <i>Discoglossus pictus pictus</i> (RDB – V locally)</p> <p>Potential impacts of the proposed development include groundwater contamination, reduction in the amount of water infiltration and contamination of watercourse which would result in the degradation of habitats hosting protected, threatened or rare species in the area. Disturbance caused by vibration, noise and light may further impact these species adversely.</p>		
14	Are there any inland, coastal, marine or underground waters on or around the location which could be affected by the project?	No. The site is not a formally designated groundwater protection zone.	<p>Yes <input type="checkbox"/> <b>No <input checked="" type="checkbox"/></b> Unclear <input type="checkbox"/></p> <p>No significant impacts are envisaged in terms of impacts on protected waters. This however does not exonerate the applicant from adopting all the necessary measures to seal the site from the surroundings, and adopt runoff filtering measures accordingly.</p>	/
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 known areas or features of particular landscape value are located in or around the site. However, the proposed development is located in an open undeveloped land located outside the development zone (ODZ). In addition, the site location is quite prominently located along a main road (Triq Burmarrad).	<p><b>Yes <input checked="" type="checkbox"/></b> No <input type="checkbox"/> Unclear <input type="checkbox"/></p> <p>The proposal may have significant impacts on visual amenity and on the overall landscape context given that it shall consist of the take up of a sizeable tract of land falling outside the development zone.</p>	PDS Pg. 10
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. The site lies along Triq Burmarrad, which is frequently used by commuters on a daily basis.	<p>Yes <input type="checkbox"/> <b>No <input checked="" type="checkbox"/></b> Unclear <input type="checkbox"/></p> <p>No significant impacts on recreational areas are envisaged, other than indicated in Question 17 below.</p>	/
17	Are there any transport routes on or around the location which	Yes. The site lies along Triq Burmarrad, which is a main road that is characteristic of congestion, especially during	<p>Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Unclear <input checked="" type="checkbox"/></b></p> <p>The potential contribution of the fuel station to traffic load along Triq Burmarrad</p>	/

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
	are susceptible to congestion or which cause environmental problems, which could be affected by the project?	rush hour.	is unclear and would need to be investigated further.	
18	Is the project in a location where it is likely to be highly visible to many people?	Yes. The project is located outside the development zone, in a part which is still relatively undeveloped, and along a main road (Triq Burmarrad). Reply to Question 15 above refers.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unclear <input type="checkbox"/>  Refer to Question 15.	/
19	Are there any areas or features of historic or cultural importance on or around the location which could be affected by the project?	Yes. Although the site does not fall within any listed archeologically sensitive areas it lies: <ul style="list-style-type: none"> <li>• Adjacent to a proposed for scheduling single storey military pillbox, and</li> <li>• 300 meters (east from site) from the proposed for scheduling il-Ħajt tal-Vjatku.</li> </ul>	Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Unclear <input checked="" type="checkbox"/></b>  Unclear. Given the proximity of the pillbox in relation to the proposed excavation works, further details regarding the methods of excavation and machinery used may be required. Moreover, applicant should identify the impacts and provide mitigation measures that ensure that the structure will not suffer any damage. The site lies close to an archaeological constraint and one cannot exclude the archaeological potential of the site in question. In this respect, SCH may be consulted and they may request further studies during the processing of the application.	/
20	Is the project located in a previously undeveloped area where there will be loss of greenfield land?	Yes. The proposed project consists of the take up of undeveloped land falling outside the committed development zone.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unclear <input type="checkbox"/>  The proposal shall lead to unnecessary and excessive formalisation of land take-up ODZ that is not considered to be acceptable in a predominantly open and rural area. In this regard, impact is considered to be significant.	/
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	Yes. The proposed development is located lies approximately 250 metres from the built-up area of San Pawl il-Baħar and approximately 350 metres from the built-up area of Burmarrad. The area and its surroundings are also considered to be predominantly agricultural even though adjacent to an Area of Containment; with the site under assessment being located on abandoned field.	Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Unclear <input checked="" type="checkbox"/></b>  The direct and indirect impacts of the proposed project on both the residential and agricultural areas are considered to be unclear given the nature, scale and location of the project.  The project may also lead to air quality and noise impacts, resulting from the introduction of hazardous substances, as well as due to visual intrusion and the commitment of the currently undeveloped open land nearby for development.	/

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
	could be affected by the project?			
22	Are there any plans for future land uses on or around the location which could be affected by the project?	Yes. The North West Local Plan identifies the site as an Area of Agricultural Value (NWAG 01 as per Map 4) and is adjacent to an Area of Containment. Given that the site is outside development zone (ODZ); a general presumption against such development is envisaged.	<b>Yes</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> Unclear <input type="checkbox"/> This consideration is best addressed directly as a key consideration in the mainstream development control process, given the objection from both a planning and environment point of view.	/
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, the site is situated alongside an alley leading to a private residential villa and adjacent to an Area of Containment. However the proposed development is located approximately 250 metres from the built-up area of San Pawl il-Baħar and approximately 350 metres from the built-up area of Burmarrad. The area and its surroundings are also predominantly agricultural, and the site itself is abandoned agricultural land.	Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Unclear</b> <input checked="" type="checkbox"/> The direct and indirect impacts of the proposed project on both the residential and agricultural areas are considered to be unclear given the nature, scale and location of the project.	/
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 sensitive land uses are located in proximity to the proposed development.	Yes <input type="checkbox"/> <b>No</b> <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	Yes. The site and its immediate surroundings are agricultural land.	<b>Yes</b> <input checked="" type="checkbox"/> No <input type="checkbox"/> Unclear <input type="checkbox"/> Replies to Questions 20 - 23 refer. This consideration is best addressed directly as a key consideration in the mainstream development control process.	/

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
	by the project?			
26	Are there any areas on or around the 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?	No such areas are known of.	Yes <input type="checkbox"/> <b>No <input checked="" type="checkbox"/></b> Unclear <input type="checkbox"/> Not relevant.	/
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?	Yes. The Maltese archipelago is susceptible to earthquake activity; however the likelihood of the site in question being significantly affected by tremors is slim.	Yes <input type="checkbox"/> <b>No <input checked="" type="checkbox"/></b> Unclear <input type="checkbox"/> No significant environmental impacts are envisaged.	/

#### **4. EIA Screening Conclusion and recommended way forward**

##### **4.1 EIA screening conclusion**

The above EIA screening matrix indicates that the proposed development would qualify for an EIA as per Schedule IA, Category 7.6.2.6 of the EIA Regulations, 2007 (L.N. 114 of 2007, as amended), which would need to address the following aspects:

- Impacts on land use, visual amenity, and the rural landscape;
- Land contamination;
- Impacts on the amenity of the adjacent residential areas vis-à-vis the establishment of a hazardous activity in vicinity to a residential area/building;
- Potential impacts on surrounding fauna and/or flora;
- Effects of the proposal on air quality and noise, including the effects on human populations and public health;
- Impacts due to the increased traffic flows on Triq Burmarrad;

- Potential cultural heritage impacts;
- Risks to the environment given the storage and retail of hazardous substances; and
- Cumulative impacts on the surrounding area of influence.

It is further noted that in addition to the EIA requirement, the environmental land use issues raised by this proposal are such that the proposal and its siting is considered objectionable from an environmental and planning points of view (as communicated in screening letter dated 11/02/2015 – Minute 25a).

In the light of the above, it is confirmed that:

1. The proposed development qualifies for an EIA (EPS);
2. The envisaged impacts of the proposal are such that the development cannot be exempted from such EIA requirement; and
3. In the opinion of the Environment Protection Directorate, the undertaking of an EIA for the proposed project would not have any added value at this stage, noting that there are overriding basic considerations about the development and its siting being upfront objectionable from environmental and land use planning points of view.