

Environmental Impact Assessment

Screening Report

PA file no.:	PA 04411/09
Other reference:	EA 00022/13
Project Title:	Proposed Petrol Station including back office, shop, two garages, VRT and car services facilities - shifting of kerb side pumps licence No. ENR-00146-KP (KP31)
Location:	Site at, Triq Sant Antnin, Marsascula
Screening date:	August 2014

1. Description of Proposal

1.1 Outline of project/development

PA 04411/09 seeks permission for the development of a new petrol station including back office, shop, two garages, VRT and car services facilities - shifting of kerb side pumps license No. ENR-00146-KP (KP31) to provide the following:

- 4 fuel pumps, each supplying 3 different types of fuel;
- a LPG tank;
- 4 car wash machines (with an area of approximately 124 sqm);
- 1 Class 4 shop (31.7m²);
- 1 office with store and public convenience (23.9m²);
- 1 office with public convenience (8.5m²);
- 1 garage (31m²); and,
- 6 parking spaces.

The Project Description Statement (PDS) submitted with this proposal, indicates that the dimensions of the four fuel tanks shall be 12m in length, with 2.5m diameter, and a total volume capacity of 240,000 ltrs (approximately 240 cubic metres). The underground LPG tank shall be 4.5m in length, with 1.5m diameter, and a total volume capacity of 8,000 ltrs (approximately 8 cubic metres). A water reservoir of approximately 194.4 sqm is also being proposed as part of the scheme.

1.2 Site description and related considerations

The site earmarked for the proposed development is situated along Triq Sant'Antnin, Marsaskala. The proposed site currently consists in abandoned agricultural land with small ancillary structures within its boundary over an area of approximately 1365 sqm (Figures 1 and 2).

The surrounding area is generally characterised by a rural landscape, with agricultural land, some of which is cultivated. The nearby development zone is located approximately 250m away from the proposed site. Other land uses in the area include the:

- Sant'Antnin sewage treatment plant;
- Sant'Antnin waste management treatment plant;
- Sant'Antnin Family Park;
- Enemalta substation – Marsaskala distribution centre; and,
- Il-Wied ta' Sant'Antnin (restoration and storm water control).

In terms of protected areas, the saline marshland at Il-Maghluq tal-Baħar, designated as a Special Area of Conservation and Natura 2000 site (MT0000023) under the Habitats Directive and an Area of Ecological Importance as per Government Notice 288 of 1995, is located approximately 780m from the proposed site.



Figure 1: Location of proposal (Source: MEPA Mapserver 2014)

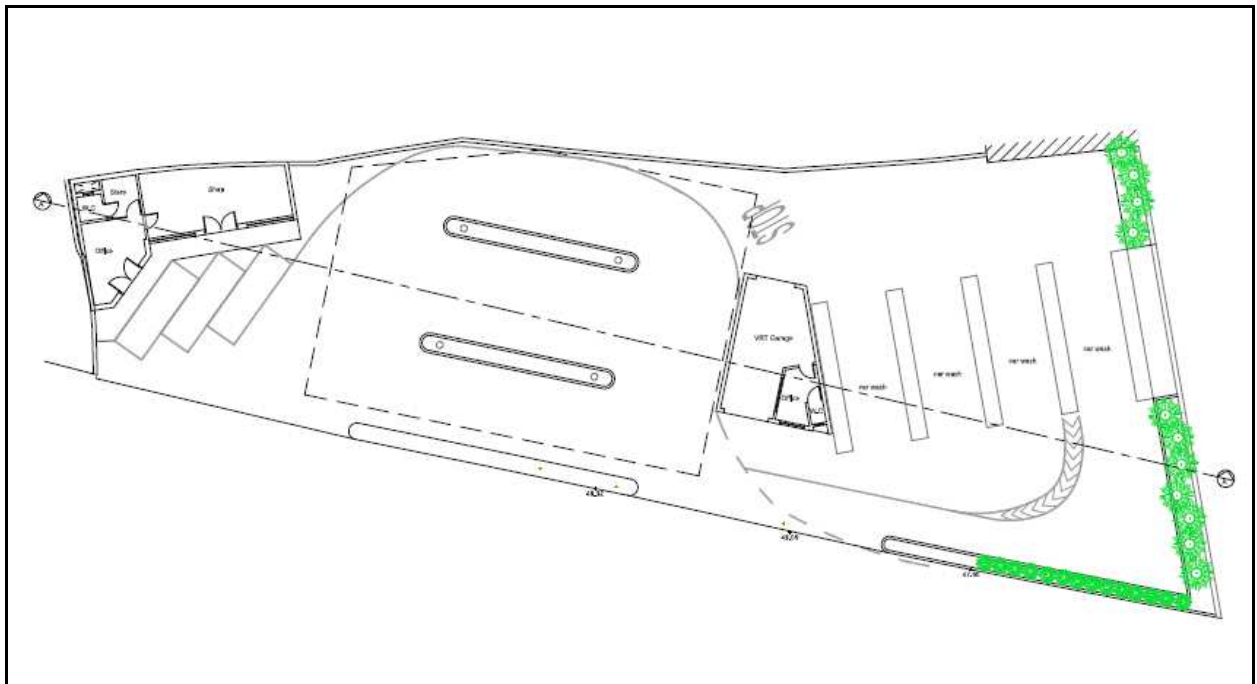


Figure 2: Proposed Block Plan (Doc. 45d in PA 04411/09)

2. EIA-relevant history

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

Schedule IA, Category II, Section 7.6.2.6 (Construction of a new fuel servicing station).

2.2 Version of documents used for screening:

1. PDS dated 14th August 2014.
2. Documents in related development permit application.

3. 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)?	<p>Yes. Site earmarked for the proposal is currently abandoned agricultural land with no specific land use.</p> <p>The surrounding area is generally characterised by a rural landscape, with agricultural land, some of which is cultivated. The nearby development zone is located approximately 250m away from the proposed site. Other land uses in the area include the:</p> <ul style="list-style-type: none"> - Sant'Antnin sewage treatment plant; - Sant'Antnin waste management treatment plant; - Sant'Antnin Family Park; - Enemalta substation – Marsaskala distribution centre; and, - Il-Wied ta' Sant'Antnin (restoration and storm water control). <p>In terms of protected areas, the saline marshland at Il-Magħluq tal-Baħar, designated as a Special Area of Conservation and Natura 2000 site (MT0000023) under the Habitats Directive and an Area of Ecological Importance as per Government Notice 288 of 1995, is located approximately</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unclear <input type="checkbox"/></p> <p>In terms of topography and physical changes to the site, the proposed development will lead to a significant change in the visual amenity of the site given that the site is currently abandoned agricultural land and lies within a predominantly rural landscape.</p>	PDS Pg. 60

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
		780m from the proposed site.		
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 1365 sqm of land outside development zone and will make limited use of natural resources such as local limestone, land, energy and water, which are non-renewable. Such resources are neither renewable nor in such short supply as to be markedly affected by this project <i>per se</i> .	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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 amount of resources expected to be used are minimal. The energy requirements of the project are expected to be minimal, thus no significant impact is envisaged.	/
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, 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"/> Unclear <input checked="" type="checkbox"/> It is unclear on whether the project is likely to have a significant effect on the air quality of the area in terms of the additional fumes and/or vapour emissions (including VOCs) generated, possibly being detrimental to the health of both residents living approximately 500m away from the site and users of both the Sant' Antrnin waste management complex and the Marsaskala Family Park. Also, the project will introduce the handling of hazardous substances and higher levels of benzene and VOCs, among others.	PDS Pg. 72
4	Will the Project produce solid wastes during construction, operation or decommissioning?	Yes, albeit limited. During the construction phase, a limited amount of inert waste is expected to be generated during the site clearing and excavation works. During the operation phase, the solid wastes created are expected to be normal municipal waste and waste oils.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> Considering the nature and size of the proposal, the impacts arising from the amount of waste likely to be produced during demolition, excavation and construction are minimal. Furthermore, the PDS notes that any surplus inert material that cannot be reused on site shall be taken to an appropriate landfill site. No significant solid wastes shall be generated during operation. Waste management is subject to the provisions of the Waste Regulation, 2011 (Legal Notice 184 of 2011, as amended by Legal Notice 441 of 2011) and the Waste Management (Activity	PDS Pg. 72 - 73

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
			Registration) Regulations, 2007 (Legal Notice 106 of 2007.	
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.	Yes <input type="checkbox"/> No <input type="checkbox"/> Unclear <input checked="" type="checkbox"/> 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 abides with the requirements of the Environmental Management Construction Site Regulations, 2007 (Legal Notice 295 of 2007). 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 and users of the Marsaskala Family Park in proximity to the site is unclear.	PDS Pg. 72 - 73
6	Will the Project cause noise and vibration or release of light, heat, energy or electromagnetic radiation?	Yes. The project will be the source of noise and vibration during both the construction and 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 industrial garage and storage area.	Yes <input type="checkbox"/> No <input type="checkbox"/> Unclear <input checked="" type="checkbox"/> It is unclear whether the noise and vibration impacts will be of significance. The project will result in the introduction of new machinery and activity in an undeveloped site, 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.	PDS Pg. 71
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"/> Unclear <input checked="" type="checkbox"/> Unclear. The potential impacts resulting from the proposal are not known. Although the PDS indicates that risks of surface contamination due to fuel spillage may be adequately mitigated through the implementation of good construction management practice, the proposal involves a potential high contamination activity, given the proximity of the	PDS Pg. 68

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
			<p>site to the Wied Sant'Antnin and the coastal area of Wied il-Għajn.</p> <p>Impacts on the saline marshland at Il-Magħluq tal-Baħar, given its location approximately 780m away from the proposed site, are not likely to be of significance.</p>	
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.	<p>Yes <input type="checkbox"/> No <input type="checkbox"/> Unclear <input checked="" type="checkbox"/></p> <p>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, benzene and VOCs emissions).</p>	/
9	Will the Project result in social changes for example, in demography, traditional lifestyles, employment?	<p>No changes in demography and traditional lifestyles are expected given the nature of the proposed development.</p> <p>In terms of employment, the PDS indicates that the proposed petrol station shall employ approximately ten people during the construction phase and approximately five people working on the site during operations.</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/></p> <p>No significant negative impacts are envisaged.</p>	PDS Pg. 51
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?	No such consequential developments that could lead to potential for cumulative impacts are known of.	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/></p> <p>No significant impacts are envisaged.</p>	/
11	Are there any areas on or around the location which are protected under international or national or local	No formally protected areas for ecological and landscape value are present on the proposed site per se. The saline marshland at Il-Magħluq tal-Baħar, designated as a Special Area of Conservation and Natura 2000 site	<p>Yes <input type="checkbox"/> No <input type="checkbox"/> Unclear <input checked="" type="checkbox"/></p> <p>No significant impacts on ecological or landscape features are envisaged given the nature and location of the proposed development.</p>	/

	Issues to be considered	Relevant environmental constraints, considerations & potential impacts	Is any significant effect envisaged?	Document reference
	legislation for their ecological, landscape, cultural or other value, which could be affected by the project?	(MT0000023) under the Habitats Directive and an Area of Ecological Importance as per Government Notice 288 of 1995, is located approximately 780m from the proposed site. In terms of cultural value, the Sant'Antnin Chapel is located approximately 215m south from the proposed site.	In terms of cultural heritage, the surrounding area is known to be archaeologically sensitive and thus there may be the possibility of discovering artefacts of cultural importance during the proposed works. Thus, in this regard the Superintendence of Cultural Heritage is to be consulted.	
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 within the site, or its immediate surroundings. Il-Wied ta' Sant'Antnin, located opposite to the proposed site, has been heavily impacted by anthropogenic interventions throughout recent years (e.g. the development of the Marsaskala Family Park from an area that had been utilised as a dump site for years). The saline marshland at Il-Magħluq tal-Baħar, designated as a Special Area of Conservation and Natura 2000 site (MT0000023) under the Habitats Directive and an Area of Ecological Importance as per Government Notice 288 of 1995, is located approximately 780m from the proposed site.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant impacts are envisaged, given the nature of the proposed development and its location from any features of ecological importance.	/
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, over wintering, migration, which could be affected by the project?	No such areas are present within the site, or its immediate surroundings.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant impacts are envisaged.	/
14	Are there any inland, coastal, marine or underground waters on or around the location which	Yes. The site lies within the M40 Water Catchment Area as designated by the Water Policy Framework Regulations, 2004 (Legal Notice 184 of 2004), which contributes to Wied iz-Ziju towards the Magħluq	Yes <input type="checkbox"/> No <input type="checkbox"/> Unclear <input checked="" type="checkbox"/> Unclear. Given the nature of the proposed development, impacts on hydrology and hydrogeology may occur due to accidental	PDS Pg. 54 - 56

	Issues to be considered	Relevant environmental constraints, considerations & potential impacts	Is any significant effect envisaged?	Document reference
	could be affected by the project?	wetland (which lies over 500m away from the proposed site) A number of boreholes are also located in proximity to the proposed development.	leakages of oils and lubricants during construction and of accidental leakages of fuels from the storage tanks during operations.	
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 or scenic value are located in or around the site; however the proposed development is located in an uncultivated agricultural land located ODZ. The site also lies prominently along Triq Sant' Antnin.	Yes <input type="checkbox"/> No <input type="checkbox"/> Unclear <input checked="" type="checkbox"/> Unclear; the proposal may have significant impacts on the visual amenity given its location and that it is being proposed on uncultivated land.	/
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 Sant'Antnin, which is the main road connecting Żabbar to Marsaskala.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No; given the site location along Triq Sant'Antnin, no significant impacts on recreational or other facilities are envisaged.	/
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. The site lies along Triq Sant'Antnin, which is the main road connecting Żabbar to Marsaskala is not currently susceptible to congestion, albeit heavy traffic may be experienced at particular times of day/year.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> The potential contribution of the fuel station to traffic load along Triq Sant'Antnin is not likely to be significant given that the proposed fuel filling station is located in Marsakala where it is unlikely that drivers from other nearby villages would travel to Marsaskala solely to fuel their vehicles.	/
18	Is the project in a location where it is likely to be highly visible to many people?	Yes. The proposal is located along Triq Sant'Antnin opposite to the Marsaskala Family Park and the Sant'Antnin Waste Management facility.	Yes <input type="checkbox"/> No <input type="checkbox"/> Unclear <input checked="" 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. In terms of cultural value, the Sant'Antnin Chapel is located approximately 215m south from the proposed site. No other features of cultural/historic importance are located within or in the immediate surroundings of the proposed site.	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
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 uncultivated agricultural land falling outside the committed development zone.	Yes <input type="checkbox"/> No <input type="checkbox"/> Unclear <input checked="" type="checkbox"/> Unclear; the proposal shall lead to significant land take-up of an area of uncultivated agricultural land outside development zone and impacts associated with such are considered to be unclear.	/
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 proposed development is located approximately 500 metres from the development zone, and is located opposite the Marsaskala Family Park and the Sant'Antnin Waste Management facility.	Yes <input type="checkbox"/> No <input type="checkbox"/> Unclear <input checked="" type="checkbox"/> Unclear. It is not clear whether the emissions generated from the proposed development would have a significant effect on sensitive receptors, namely residents located approximately 500m away from the site and users of both the Sant' Antnin waste management complex and the Marsaskala Family Park.	/
22	Are there any plans for future land uses on or around the location which could be affected by the project?	Yes. The South Malta Local Plan does not indicate any designated use for the site under assessment (map MS 4 refers), however given that the site is located outside development zone (ODZ), a general presumption against such development is envisaged.	Yes <input type="checkbox"/> No <input type="checkbox"/> Unclear <input checked="" type="checkbox"/> Unclear; the proposal shall lead to significant land take-up of an area of uncultivated agricultural land outside development zone and impacts associated with such are considered to be unclear.	/
23	Are there any areas on or around the location which are densely populated or built up, which could be affected by the project?	Yes. The proposed development is located approximately 500 metres from the development zone, located opposite the Marsaskala Family Park and the Sant'Antnin Waste Management facility.	Yes <input type="checkbox"/> No <input type="checkbox"/> Unclear <input checked="" type="checkbox"/> Unclear. It is not clear whether the emissions generated from the proposed development would have a significant effect on sensitive receptors, namely residents located approximately 500m away from the site and users of both the Sant' Antnin waste management complex and the Marsaskala Family Park.	/

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
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?	Yes. The proposed development is located opposite to the Marsaskala Family Park.	Yes <input type="checkbox"/> No <input type="checkbox"/> Unclear <input checked="" type="checkbox"/> Unclear. It is not clear whether the emissions generated from the proposed development would have a significant effect on sensitive receptors, particularly the users of the Marsaskala Family Park.	/
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 above refers.	Yes <input type="checkbox"/> No <input type="checkbox"/> Unclear <input checked="" type="checkbox"/> Unclear. Given the nature of the proposed development, impacts on hydrology and hydrogeology may occur due to accidental leakages of oils and lubricants during construction and of accidental leakages of fuels from the storage tanks during operations.	PDS Pg. 54 - 56
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 present within the site, or its immediate surroundings.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant environmental impacts are envisaged.	/
27	Is the project location susceptible to earthquakes, or subsidence, landslides, erosion, flooding or extreme or	No.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant environmental impacts are envisaged.	/

	Issues to be considered	Relevant constraints, environmental considerations & potential impacts	Is any significant effect envisaged?	Document reference
	adverse climatic conditions e.g. temperature inversions, fogs, severe winds, which could cause the project to present environmental problems?			

4. EIA Screening Conclusion and recommended way forward

4.1 EIA screening conclusion

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

- Impacts on land use, topography and visual amenity;
- Effects of the proposal on air quality, including the effects on human populations and public health;
- Impacts due to increased noise and vibrations;
- Risks of land contamination/impacts from hydrology and hydrogeology from possible spillages or leakages;
- Risks to the environment given the storage and retail of hazardous substances;
- Impacts on any cultural heritage assets that might potentially be located within the area; and,
- Cumulative impacts on the surrounding area of influence.

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

1. The proposed development qualifies for an EIA (Environmental Planning Statement - EPS); and,
2. The envisaged impacts of the proposal are such that the development cannot be exempted from such EIA requirement.

4.2 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.