



PA 01254/09

**SCUTTling OF "TUGBOAT TUG 2"
OFF EXILES COAST, SLIEMA AT N 35 ° 55.270' & E 14 ° 29.930,
OFF TRIQ IT-TORRI, SLIEMA**

TERMS OF REFERENCE

FOR THE PREPARATION OF AN

ENVIRONMENTAL PLANNING STATEMENT

December 2010

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TO SCUTTLE "TUGBOAT TUG 2" OFF EXILES COAST, SLIEMA AT N 35 °55.270' & E 14 °29.930 OFF COAST OF EXILES OFF, TRIQ IT-TORRI, SLIEMA.

- Note 1:** *“Environmental Impact Assessment is the process of identifying, predicting, evaluating and mitigating the biophysical, social and other relevant effects of development proposals prior to major decisions being taken and commitments made”* (IAIA, 1999)¹. The EIA is to document clearly and impartially the impacts of the proposal, the proposed mitigation measures and impact significance. In accordance with best practice, this shall be carried with professionalism, rigour, fairness, objectivity, impartiality and balance.
- Note 2:** The Malta Environment and Planning Authority (MEPA) reserves the right to request additional studies should the findings of the EPS not be sufficient to adequately inform the decision making process or if the EPS identifies matters which should be subject to further (or new) studies.
- All requirements set out in these terms of reference must be complied with. If there are any sections that the consultant deems that they are not relevant to this study, the consultant shall inform MEPA accordingly fully justifying his/her reasoning.
- Should, during the process of the EPS the consultant discover that any environmental feature/s, not included in these Terms of Reference needs to be studied, the consultant shall inform MEPA immediately, justifying his/her reasoning.
- Note 3:** Difficulties, including technical difficulties and lack of information, encountered by the consultants in compiling the required information shall be made clear. All references to published works and sources of information shall be duly acknowledged. No material may be incorporated by reference unless it is reasonably available for inspection by potentially interested persons within the consultation period. Any material which is based on proprietary data which is not available shall not be incorporated by reference.
- Note 4:** Experts contributing to the EPS should be specifically asked to consider impact interactions and to communicate information between each other.
- Note 5:** The relevance of Maltese Legislation and Maltese Planning Policy (notably the Structure Plan for the Maltese Islands and Local Plans for the surrounding areas), other policies and international policies and conventions shall be discussed and the compatibility (or otherwise) of the proposal with these laws and policies should be described and analysed in the relevant chapters. Policies on the following should also be discussed: conservation areas and zones, marine protection, protected buildings and sites, areas of natural beauty (including localized scenic spots/coves), areas of scientific, ecological, archaeological, agricultural, architectural, historical, antiquarian or artistic value, aquifer protection and run-off.
- Note 6:** A list of all permits, licenses and other forms of authorisation (other than the development planning permit) which must be obtained by the applicant in terms of any other law in implementing the development if permission is granted must be included in the EPS. If consultants are uncertain whether an authorisation is necessary, they shall so indicate in the EPS.
- Note 7:** Following the review of the EPS, MEPA submits comments to the EPS consultants for further clarifications. Once the consultants respond to these comments to the satisfaction of MEPA, a second draft of the EPS, that includes these clarifications, must be prepared. MEPA will only accept an Addendum containing these clarifications if the clarifications are few or where the EPS is still easy to follow with the Addendum.
- Note 8:** Any requirement for confidentiality of any section of the EPS must be justified and a formal request in this regard must be submitted to MEPA. Should MEPA grant confidentiality for specified sections, alternate material that excludes confidential details must be provided for public consultation.

¹ International Association for Impact Assessment (IAIA). (1999). *Principles of Environmental Impact Assessment Best Practice*. Document published by the IAIA in cooperation with the Institute of Environmental Assessment, UK.

An Environmental Planning Statement (EPS) is to be prepared for the proposed scuttling of "Tugboat TUG 2" off Exiles Coast, Sliema at N 35 °55.270' & E 14 °29. 930 off Coast of Exiles off, Triq It-Torri, Sliema, as required by the Environmental Impact Assessment Regulations, 2007 (L.N. 114 of 2007), Schedule IA, Category 4.2.2.4. of the said Regulations. The components of the EPS are to be:

- i. A **Coordinated Assessment Report**, in conformity with Sections 1 - 4 and their contents as outlined below. This report should describe the project in its totality.
- ii. A **Separate Appendix** containing all original survey reports as prepared by individual consultants for specific topics.
- iii. A separate **Non-Technical Summary** of all sections of the technical report (to be also provided in digital format and in both the Maltese and English languages). This summary should include any assumptions made in the main report; key features of the site (including surroundings) and proposed development; key impacts and any proposed mitigation measures to minimise costs (externalities) and maximise benefits arising from the proposed development. Technical terms, lists of data and detailed explanations of scientific reasoning should, where possible, be avoided.
- iv. A printable **digital copy of the first draft** of all elements of the EPS in .pdf format, which includes all the above, including any plans, maps, photographs, graphs, and any other contents of graphical/visual nature contained within the EPS. Once the EPS has been certified a **digital copy of the certified document** is to be submitted to MEPA.
- v. Conformity with sub-Regulations 28 and 29 of the EIA Regulations (refer to Appendix 1 to these Terms of Reference).

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1.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT

Note 9: The description of the proposed development is to include consideration of the aspects outlined below. This description must take into account the entire proposal and any ancillary facilities connected with, or arising due to, the project (such as any infrastructure required). Where relevant this section should include maps, plans and diagrams.

1.1 Justification for the Proposal

1.1.1 Objectives

A description shall be provided of the environmental, social and economic objectives which the development will seek to address, and whether such objectives stem from current international obligations and national, regional or local policy, plans and guidance.

1.1.2 Demand

This shall be accompanied by a description of the **current and expected demand** for the proposed scuttling of vessel. The study shall explain how the proposal will address this demand. An indication of how this particular vessel was chosen as the right type of wreck to match the site should be provided.

1.1.3 Future developments

Future scuttling and needs, if any, of the proposed development shall also be addressed and assessed.

1.2 A Description of the Physical Characteristics and Features of the Project including Constructional Features

1.2.1 Description of the proposed development including details of the proposed layouts showing the design (size, area, height, volume, proposed elevations [scale 1:2500]), configuration of the wreck on the seabed and the upper and lower depth at which the wreck will lie once deployed within the selected site.

1.2.2 Description of the vessel including size, structural integrity, type and raw materials making up the structure. This should include a description of possible contaminants of sea water occurring on the vessel.

1.2.3 Sea and land use requirements used to deploy and utilize the wreck. This description must account for changes in use according to seasonality. Positions of any proposed concrete mooring blocks should be identified including the area to which the vessel shall be tied to the sea bottom. Proposed facilities on the ground, including any temporary facilities. These shall be described in terms of size, area, height and volume, proposed elevations, layout, methods of construction (if any) etc.

1.2.4 Proposed project management arrangements, including expected duration of project. Types and quantities of raw materials including water, energy, stone and other resources consumed during the process. Expected life span of structure once deployed.

1.2.5 Description of method of deployment including method of transportation of the vessel, and routes for transportation. Details describing the equipment required for the transfer should be supplied.

1.2.6 Description of the cleaning methods used for removal of dangerous or potentially dangerous and/or toxic parts and materials such as rubber, paints and other materials or structures.

1.2.7 Quantities and types of waste to be handled by the proposed scuttling during cleaning and prior to deployment; quantities and types of waste (if any) to be retained), disposed of and its location.

1.3 A Description of the Operational Features of the Project

1.3.1 Details of site management following deployment of the vessel to ensure further enhancement of any positive impacts.

1.3.2 Proposal for decommissioning of the wreck should it fail to reach its objectives.

1.4 Waste Management

This section is aimed at assessing the waste management implications that are likely to arise from the proposed project, and shall address the following requirements:

1.4.1 Identification of processes or activities that would result in waste generation, subdivided to clearly reflect all relevant waste streams arising during the following project phases:

- (a) Cleaning;
- (b) Scuttling;
- (c) Any ancillary facilities and wastes which may arise from accidental breakdown, spillages and leakages from the operation of on-site machinery.

1.4.2 Estimation of the respective quantities of waste, and clear indication as to whether any waste is likely to be contaminated. All information and estimates shall be presented **separately** for the different phases listed above, and shall also:

- (a) specify (for each significant waste stream) the European Waste Catalogue Code, and the H code (if applicable) as per Schedules 1 & 2 of the Waste Management (Permit and Control) Regulations [LN 337 of 2001]; and
- (b) explain all assumptions made and methodologies adopted.

This information shall be presented in table format as follows:

Phase	Activity	Type of Waste	Relevant Codes	Estimated Waste Quantities	Waste Infrastructure on site
Site clearance & demolition					
Excavation					
Construction					
Operation					
Ancillary facilities					

1.5 Consideration of Alternatives

1.5.1 *Alternative Technologies*

An assessment of the alternative technologies should be considered. This section should contain a detailed explanation of the proposed technology to be used. The use of Best Practicable Environmental Option (BPEO), considering the geographical location and local environment shall also be addressed. The information shall be presented in tabular format indicating technologies and associated environmental impacts, in sufficient detail.

1.5.2 *Alternative Sites and/or Placements*

An identification of alternative sites (including the proposed site and other suitable sites) within the area, based upon the possibilities and constraints posed by physical characteristics and features of the project and its operational features. A description of the sites and site-specific environmental impacts shall be provided.

A comparative analysis of the alternative placements of the wreck on the proposed site is to be provided.

1.5.3 *Zero option*

A zero option assessment should be included (that is, an assessment of the way the site would develop if it were left in its current state).

1.5.4 The findings on the environmental impacts of alternative technologies shall be combined with those on the environmental characteristics and environmental impacts in alternative sites and placements. This will enable the identification of best combinations. The technical and planning reasons why a particular technology and site was selected in preference to all the others must be clearly explained.

2.0 A DESCRIPTION OF THE PROPOSED SITE AND ITS SURROUNDINGS

Note 10: This description is identified by the area of influence for each relevant parameter. The area of influence for each parameter shall be determined by the consultants who shall also justify the extent of the chosen area of influence. This must be **APPROVED** by the Malta Environment and Planning Authority prior to commencement of the EIA. This description should include:

The following section shall comprise the baseline studies for a number of issues with respect to the proposed development. Reference should be made to the requirements under the Water Framework Directive; particularly Annex V. The studies shall be carried out on the following:

2.1 Land and Sea Uses

A description of the recreational, commercial and any other marine and land activities occurring within and around the deployment site also taking into account seasonality.

2.2 Marine Ecology

The characteristics of the marine environment within the area proposed for scuttling, accounting for any alternative sitings. Particular reference is to be made to any species or biotopes/habitat types found in the area under study and listed in relevant nature protection² legislation, relevant nature protection treaties and the EU Nature Protection Acquis. Identification of important and/or protected species shall be included as well as of indicator or key species relevant to characterisation of the habitat and monitoring purposes.

This shall include adequate maps, plans, diagrams, photographs of the marine biotopes/habitats types of the area. The marine ecology study shall include the following:

2.2.1 Benthic Survey

A full benthic survey of the area and the area to be potentially affected by the development, consisting of a detailed survey along a transect system to characterise the benthic communities in the area. The communities are to be characterised according to the system given in Borg & Schembri (2003)³. Floral assemblages and megafauna noted during the survey are to be recorded and mapped as necessary. A list of, and location of Annex II, IV, V species if any, should also be provided.

2.2.2 Infaunal survey

An identification and description of characteristic infauna of the site.

2.2.3 Pelagic Organisms Survey

A survey of pelagic organisms occurring in the area.

2.2.4 Fish Survey

An assessment of the fish populations in the area. The type of assessment required should indicate:

- a) Lists of species encountered in the survey according to the area where they were encountered;
- b) A generic assessment as regards the abundances of species i.e. individuals, frequency, shoals, etc.; and
- c) A qualitative assessment of the above in terms of the ecological niches to which the species pertain.

2.3 Quality of the Marine Environment

This shall identify the chemical, physico-chemical and hydro-morphological elements supporting the biological characteristics within the area proposed for scuttling, accounting for any alternative sitings.

This shall include:

- a) Physico-chemical characteristics (chlorophyll, etc) of the marine environment in the area under investigation, including granulometry of substrate; and
- b) Hydromorphological characteristics including depth variation.

² Nature Protection regulations include, amongst others, the Environment Protection Act [Act XX of 2001], the Development Planning Act [Act I of 1992 as amended] and the Sand Preservation Act [Act XVI of 1949 as amended]; and various Legal Notices, including 76/92, 49/93 as amended, 146/93 as amended, 161/99, 160/02, 167/02, 203/03, 311/06 and 194/04.

³ Borg, J.A. & Schembri, P.J. (2003) Alignment of marine habitat data of the Maltese Islands to conform to the requirements of the EU habitats directive. In: Sant, M. (Editor) *Marine habitats data of the Maltese Islands*. Interactive CD. Floriana, Malta: Malta Environment and Planning Authority. [Compact Diskette]

2.4 Waves and Currents

A description of present prevailing and local currents and their velocity, and wave climate and exposure. This should refer to but not be restricted to prevailing weather conditions (including probability of extreme conditions).

2.5 Archaeology/Cultural Heritage

This study shall include a diving visual inspection of the site, carried out at 5, 10, 15, 20 and 25 m intervals around the selected site. This is to be supplemented with desk-top research of the area in question.

2.6 Any other relevant environmental features

All other relevant environmental features on site shall be identified and described.

3.0 ASSESSMENT OF ENVIRONMENTAL IMPACTS AND RISKS OF THE PROPOSED DEVELOPMENT

Note 11: All significant impacts of and risks posed by the proposed project **during construction and during operation**, should be assessed, given the environmental characteristics of the site outlined in Section 1 and 2 and the relevant policies. A descriptive and quantitative analysis (including magnitudes and timing) of the impacts of the proposed development should be made, and presented in summary chart format. The various techniques, methods and assumptions used in the analysis and predictions should be outlined.

The impact assessment should include:

- i. Description of the impact;
- ii. Magnitude and significance;
- iii. Duration (temporary or permanent);
- iv. Extent (in relation to site coverage and surroundings and associated features);
- v. Direct or indirect impact;
- vi. Adverse or beneficial;
- vii. Reversible or irreversible effects of the impact and extent or irreversibility as well as description of any associated conditions/assumptions for irreversibility;
- viii. Sensitivity of resources to impacts;
- ix. Probability of impact occurring;
- x. Confidence level/limits to impact prediction;
- xi. Scope of mitigation/enhancement; and
- xii. Residual impacts.

3.1 Impacts on Land and Sea Uses

The assessment shall consider the impact on the uses of the area.

3.2 Effects on Marine Ecology

The assessment shall give details of the expected impacts and the evaluation of the significance of the wreck scuttling and its anthropogenic use on benthic, pelagic, infaunal, fish and other communities. Changes in communities and ecosystems shall be highlighted.

The assessment shall also give the effects due movements (laterally and vertically) of the wreck following deployment.

The impact of increased activity, including diving, anchoring, traffic and fuel exhaust shall be assessed.

3.3 Effects on Quality of the Marine Environment

The assessment shall give details of the expected impacts and the evaluation of the significance of the wreck scuttling and its anthropogenic use, on the biological, physico-chemical and hydromorphological characteristics of the coastal water body. This shall also include impacts on sediment characteristics of the area.

The effects on bathymetry shall be assessed.

Impacts on groundwater and surface water in terms of water quality shall also be assessed.

3.4 Effects of Currents

Effect of the structure on the prevailing and local currents and the effect of the currents on the structure and the operation of the site as a diving attraction shall be assessed.

3.5 Impacts on Archaeology/Cultural Heritage

An adequate assessment of impacts and proposed mitigations are to be provided, based on the findings of the survey/s. Moreover, the Superintendence of Cultural Heritage is to be consulted in view of its database on underwater sites.

3.6 Secondary Impacts

Mainly arising from the extraction and consumption of resources necessary to implement the project, as well as from developments supporting the project, such as water, energy, construction materials, and the resultant need (if any) of development of new supplies.

3.7 Other Environmental Effects

Other environmental effects other than those identified in Sections 3.1 – 3.6 shall be described and their impacts assessed.

3.8 Cumulative Effects

This section shall refer to all the impacts of all the aspects of the development and shall assess:

- The effects resulting from the **interaction of separate effects** listed above as well as any other relevant impacts; and,
- The impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions/activities together with the project.⁴

3.9 Interaction between any of the foregoing

Experts contributing to the EIA should be specifically asked to consider impact interactions and to communicate information between each other. In addition, any environmental components not listed in the Directive or Regulations that are likely to be affected should not be discounted.

Predictions of impact interaction will nearly always involve a greater degree of uncertainty than prediction of impacts on individual components. This should be referred to in the EIA rather than ignored.

4.0 DESIGN OF MITIGATION MEASURES, IDENTIFICATION OF RESIDUAL IMPACTS AND MONITORING PROGRAMME

4.1 Mitigation and Compensatory Measures

This should include a description of the measures envisaged to prevent, minimise and where possible, offset any significant adverse effects on the environment of the project. Such measures could include technological features; operational management techniques; enhanced site-planning and management; aesthetic measures; conservation measures; reduction of magnitude of project; and health and safety measures.

4.2 Residual Impacts

Any residual impacts, that is those impacts that cannot be mitigated or those remaining impacts following implementation of preventive and mitigation measures, should also be described, quantified and presented in a tabular format.

4.3 Monitoring Framework

The consultants must propose a monitoring framework, which should take into account monitoring of those features that are considered to be impacted negatively or the impact of which is uncertain. The monitoring should assess environmental changes in the light of the scope of the scuttling of the vessel. Details regarding type of and frequency of monitoring must be given.

⁴ European Commission, May 1999. *Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions*, <http://ec.europa.eu/environment/eia/eia-studies-and-reports/guidel.pdf>.

**Environmental Impact Assessment Regulations, 2007
Regulation 28 and Regulation 29 of the EIA Regulations, 2007**

Regulation 28

List of Consultants (Extract from the EIA Regulations)

28. (1) The environmental impact statement shall list the registration number and the names of the consultants and contributors responsible for the preparation of the environmental impact statement, environmental survey reports, appendices, non-technical summary and other components of the statement.

(2) The consultants who are responsible for a particular analysis, including analysis in the environmental survey reports, shall be identified.

(3) All consultants and contributors employed in the environmental impact assessment shall sign a declaration stating that the particular study (or part thereof) was solely carried out by them and that they take responsibility for any statement and conclusion contained therein. This signed declaration shall be included with each environmental survey report included with the environmental impact statement.

Signed declaration in accordance with Regulation 28 (3)

Director of Environment Protection
MEPA

I _____, who carried out the study (or part thereof) on _____ for the EPS of the proposed scuttling of "Tugboat TUG 2" off Exiles Coast, Sliema at N 35 ° 55.270' & E 14 ° 29.930 off Coast of Exiles off, Triq It-Torri, Sliema (PA 01254/09), hereby declare that such study was solely carried out by me and I take responsibility for any statement or conclusion contained therein.

Date

Signature

This declaration is to be included with each environmental survey report included with the EPS.

Regulation 29

Conflict of Interest (extract from the EIA Regulations)

29. (1) In the interest of fairness, objectivity and the avoidance of bias, all consultants shall be required to sign and abide by a declaration that they have no personal or financial interest in the proposed development.

(2) The Director of Environment Protection shall not approve consultants, groups of consultants or consultancy firms that are in any way associated with any company, association or grouping that has any direct or indirect personal, association or grouping that has any direct or indirect personal, professional or financial interest in the proposed development.

(3) The Director of Environment Protection shall not approve any environmental impact statement or environmental planning statement produced by a consultant or group of consultants, one or more of whom does not comply with the provisions of sub-regulations (1) or (2) of this regulation.

Signed Declaration in accordance with Regulation 29 (1)

Director of Environment Protection
MEPA

I _____, hereby declare that I have no personal or financial interest in the proposed development, namely the proposed scuttling of "Tugboat TUG 2" off Exiles Coast, Sliema at N 35 ° 55.270' & E 14 ° 29.930 off Coast of Exiles off, Triq It-Torri, Sliema (PA 01254/09). Moreover, I declare that I am not in any way associated with any individual, company, association or grouping that has any direct or indirect, personal, professional or financial interest in the abovementioned proposed development.

Date

Signature

Such declaration is to be sent to MEPA when proposing the list of EIA Consultants prior to their approval or otherwise.