

Comments on the Environmental Impact Assessment: Restoration of Disused Quarries at Ix-Xaghra tal- Maghlaq and Il-Qasam il-Kbir by Infilling with Inert and Non-Hazardous Waste, Malta

6th February 2004

LINO BIANCO

1.0 Terms of Reference

- 1.1 This note is a response to the invitation of Qrendi Local Council to evaluate the Environmental Impact Assessment for the restoration of disused quarries at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir following its use as an interim engineered landfill. The former lies within the boundaries of Siggiewi Local Council while the latter falls within the boundaries of Qrendi Local Council.
- 1.2 The *Environmental Impact Statement* was submitted by SLR Consulting Ltd in association with AIS Environmental Ltd on behalf of WasteServ Malta Ltd. The *Environmental Impact Statement* was requested by the Malta Environment and Planning Authority as per Schedule I (Category I, 2.7.1.5) of the Environment Impact Assessment Regulations, 2001. Comments had to be communicated to the Malta Environment and Planning Authority by not later than Friday 6th February 2004.

2.0 The Issue

- 2.1 It is part of Central Government policy to close down the chaotic, unmanaged landfill at Maghtab for a number of reasons including local environmental concerns and compliance with European Union legislation. Until the design and implementation of an engineered landfill at Ta' I-Ghallis, WasteServ Malta Ltd, a private company wholly owned by Government through Malta Government Investments Limited and Malta Investments Management Company Limited, will be setting up an interim engineered landfill at the disused hardstone quarries of Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir, north of the Neolithic settlements, including the megalithic temple complexes of Hagar Qim and Mnajdra.

2.2 In terms of the Project Description Statement on which the Environmental Impact Assessment is based, the interim engineered landfill at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir will be¹

...designed to a high specification including a conformance with European Union (EU) policy on waste management and good practice. This project seeks to:

- provide a short-term, but modern and environmentally sound method of treating and disposing of non-hazardous and inert waste;
- provide the necessary infrastructure for the proper disposal of waste by the date stipulated in the *Solid Waste Management Strategy* and thereby enable the planned immediate closure, rehabilitation and restoration of the Maghtab waste disposal site;
- meet the requirements of the *North West Local Plan (2001)*, which specifically states that a visitors' centre within an Archaeological Park will be established along with a number of other environmental, cultural and landscape related initiatives; and
- allow the planning and development of a long term controlled engineered landfill and associated waste processing and treatment facilities at Ghallis to be gradual and phased.

2.3 The hardstone quarries at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir, both Lower Coralline Limestone extraction sites, fell into disuse following the respective refusal for extensions covered by full development planning applications PA3897/93 and PA3863/93. The main reason for refusal in both applications was that the proposed extensions run counter to Structure Plan policies MIN 5,² MIN 9,³ RCO 1,⁴ ARC 2,⁵

¹ Ministry for Resources and Infrastructure, *Restoration of Quarries by Infilling with Inert and Non-hazardous Wastes: Project Description Statement*, WasteServ Malta Ltd, July 2003, p. 1, Section 1.1.1.

² Structure Plan Policy MIN 5 states:
There will be a presumption against surface mineral working in or near areas of acknowledged interest for ecology, archaeology, and in areas of high quality agricultural land.

³ Structure Plan Policy MIN 9 states:
Proposals for mineral extraction and processing will normally be refused where the need to work the mineral is not sufficient to justify the environmental impact that is likely to arise.

⁴ Structure Plan Policy RCO 1 states:
Rural Conservation Areas are designated as Illustrated in the Key Diagram. Within such areas the following sub areas will be designated, using World Conservation Union definitions and criteria where relevant:
1. Areas of Agricultural Value: areas comprised of high-grade agricultural land including irrigated and partially irrigated land

ARC 3⁶ and ARC 4.⁷ It was argued in the respective Development Planning Reports that the proposed extensions were⁸

... within a site of high cultural, scientific, educational and natural heritage. ... [They] lie in the grounds lying between Hagar Qim/ Mnajdra Archaeological Park (comprising of Hagar Qim, Mnajdra, and Misqa prehistoric tanks) and the Maghlaq catacombs. In terms of policy ARC 2, the Planning Authority has classified all the archaeological remains in the area as Class A. Furthermore it was identified and delineated Hagar Qim and Mnajdra, endorsed by UNESCO as World Heritage Sites, as areas of archaeological importance (ARC 4)

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2. Areas of Ecological Importance: relatively large areas designated to protect typical and rare habitats
 3. Sites of Scientific Importance: sites containing individual species, groups of species, and geological features
 4. Areas of Archaeological Importance: concentrations of valuable archaeological sites
 5. Sites of Archaeological Importance: Individual and/or Isolated archaeological sites
 6. National Parks: relatively large areas of national significance not materially altered by human use, with managed visitor access and amenities
 7. Areas of High Landscape Value

5 Structure Plan Policy ARC 2 states:

In making the designations referred to in Policy ARC 1, the Planning Authority will give protection ratings as appropriate to local circumstances as follows:

Class A: Top priority conservation. No development to be allowed which would adversely affect the natural setting of these monuments or sites. A minimum buffer zone of at least 100m around the periphery of the site will be established in which no development will be allowed.

Class B: Very important to be preserved at all costs. All measures to be taken to preclude any damage from immediate development.

Class C: Every effort must be made for preservation, but may be covered up after proper investigation, documentation and cataloguing. Provision for subsequent access shall be provided.

Class D: Belonging to a type known from numerous other examples. To be properly recorded and catalogued before covering or destroying.

6 Structure Plan Policy ARC 3 states:

Applications for planning permission for development affecting ancient monuments and important archaeological areas and sites, including areas and sites having such potential, will normally be refused if there is an overriding case for preservation. Where there is no overriding case for preservation, development of such sites will not normally be permitted until adequate opportunities have been provided for the recording and, where desirable, the excavation of such sites.

7 Structure Plan Policy ARC 4 states:

As a matter of priority, the Planning Authority will designate Hagar Qim/Mnajdra and Ggantija as Areas of Archaeological Importance and will collaborate with other agencies to develop them as National Parks.

8 Planning Directorate, *Report to the Planning Authority: PA 3897/93: Extension to Quarry at Il-Maghlaq, I/o Siggiewi*, dated 10th February 1994.
Planning Directorate, *Report to the Planning Authority: PA 3863/93: Extension to Quarry at Qasam il-Kbir, I/o Qrendi*, dated 10th February 1994.

3.0 The Context

3.1 The Cultural Setting

3.1.1 The entire area is located in a geocultural setting spreading over six millennia. The megalithic temple complexes of Hagar Qim and Mnajdra, relics of a far bygone civilisation, are the oldest freestanding architectural structures in the world. They are not only landmarks in prehistoric world architecture and a feat in building engineering but also a witness of technical organisation and skill in erecting them. The present landscape allows one to read the grandeur and massiveness of the art and science employed in their construction. Other prehistoric remains in the area include Misqa tanks south of Il-Qasam il-Kbir quarry.

3.1.2 Along the side of the Maghlaq Valley, known for well preserved Pleistocene deposits, there are several early Christian catacombs. They are located in a unique setting at the change of geological strata from the Lower Coralline Limestone to the Lower Globigerina Limestone. Close to the coastal cliffs there is a seventeenth century watch tower, known as Tal-Hamrija Tower erected by the Knights of St John as part of their coastal defences. Located near this tower is a cenotaph set up in memory of Sir Walter Congreve who was buried at sea. A more recent historical site is the San Niklaw military airfield.

3.2 The Natural Setting

3.2.1 The area is marked with well established steppe and garigue, each with typical perennials of Red Data Book Status. Dominant species present are all endemic, some with highly restricted distribution. The area also has a rich faunal legacy. For a thorough inventory of the flora and fauna of the area, it is imperative to undertake ecological assessments in other seasons, in particular “during the spring season when nature would be at its peak/best”.⁹

3.2.2 The area comprises a number of geological features which are of national interest, namely the Maghlaq Fault, one of the two main fault systems in the Maltese Islands. The area has a number of geomorphological features such as the coastal cliffs of Level 3 Ecological Importance.

⁹ SLR Consulting Ltd/AIS Environmental Ltd, *Environmental Impact Statement: Restoration of Quarries by Landfilling at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir*, December 2003, Section 9, p.121.

3.2.3 Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir areas are characterised by dryland agriculture. Soils in the area are of significant importance not only to study agrarian behaviour patterns, but also as deposits and settings of archaeological material.

3.3 The Socio-economic Setting

3.3.1 The location where the hardstone quarries of Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir is within one of the few areas in the Maltese Islands bearing a rich conglomeration of cultural and natural features, creating a setting high in visual amenity, especially the panoramic view of Filfla. This makes it a popular recreational activity site, both for locals and foreigners. The high touristic and educational importance of the area has long been endorsed by key players of tourism, education and culture in Malta.

3.3.2 The area is rich in mineral deposits and mineral extraction has been going since time immemorial. Current Malta Environment and Planning Authority philosophy for the area centres around the premise that the economic value of the geocultural landscape far surpasses the economic value of the mineral deposits. In fact, applications for extensions of the quarries were refused in 1994 on these grounds.

4.0 Development Planning History of the Area

4.1 The area is rich in industrial archaeology. The temple complexes themselves are an evidence to it. Topographical evidence of quarrying can be noted in the 1908 Survey Sheets. From a study of later survey sheets and aerial photos of the area since the 1950s, it is self-evident that by 1968 quarrying was well pronounced in the area. Until the 1990s it had extended significantly, but in 1994, applications for extensions to existing quarrying activity in the area were turned down by the Planning Authority on Structure Plan policies and following consultations and recommendations of numerous government entities involved with museums, tourism and culture.

4.2 The entire area within which the quarries are located is of paramount national and international cultural heritage importance. This has prompted the Museums Department, as early as the 1960s, to recommend refusal of quarrying activity in the area, a position later shared with the Antiquities Committee and the Ministry of Tourism. This recommendation was repeatedly over-ruled. Following the enactment

of the Development Planning Act, 1992, extensions to mineral workings were considered as development and thus required full development planning permission to be granted a licence to operate. When the applications for extensions to quarries at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir were submitted to the Planning Authority, consultations were requested from various government agencies. The Museums Department, the Ministry of Youth and Culture, the Secretariat of the Environment and the Secretariat of Tourism recommended refusal.

5.0 International Obligations

5.1 The UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage (1972)

An essential axiom of the Convention states that the responsibility to conserve elements of world heritage lying within a territory is primarily the responsibility of the State Party to whom that territory belongs. The State Party is obliged to

act to this end, to the utmost of its own resources

Article 1 considers sites where the combined works of nature and human activity, and areas including archaeological sites, which are of outstanding universal value from historical, aesthetic, ethnological or anthropological standpoints, as cultural heritage.¹⁰ Article 2 considers natural features, geological formations, and natural sites of outstanding universal value from the point of view of science, conservation, or natural beauty, as natural heritage.¹¹

¹⁰ Article 1 defines 'cultural heritage' as:

Monuments : architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science;

Groups of buildings : groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science;

Sites: works of man or the combined works of nature and of man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological points of view.

¹¹ Article 2 defines 'natural heritage' as:

natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view;

geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation;

natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty.

Article 12 states that a property of cultural or natural heritage not included in the World Heritage List does not imply that the property does not have an outstanding universal value:

The fact that a property belonging to the cultural and natural heritage has not been included in ,, [the World Heritage List] shall in no way be construed to mean that it does not have an outstanding universal value for purposes other than those resulting from inclusion in these lists.

5.2 The European Landscape Convention (2000)

This Convention was drafted following urgent action to develop a comprehensive, legal instrument with respect to the protection, management and enhancement of landscapes of Europe. The scope of the Convention is enshrined in Article 2, which states that:

This convention applies to the entire European territory of the Parties and covers natural, rural, urban and peri-urban areas. It concerns ordinary or everyday landscapes no less than outstanding ones, since they all decisively influence the quality of the surroundings in which Europe's populations live.

Each signatory is obliged to accommodate landscape systematically in its environmental planning policy and in other sectors which have direct or indirect impact(s) on landscapes. Moreover, it is obliged to identify landscapes within its territory, including endangered ones, and analyse the character, dynamics and pressures which transforms them. It is to be noted that the Maghlaq area has been scheduled as an Area of High Landscape Value in the *North West Local Plan*.¹²

5.3 European Union Legislation

- 5.3.1 Regulations are binding in their entirety and directly applicable to all Member States. Directives are binding to Member States for the result to be obtained. Each Member State is free to implement directives in any form and method at their discretion. Decisions are binding to the parties in the legal suit. In European Union legislation,

¹² A development proposal by the Government of Malta to rehabilitate a disused quarry using inert construction waste, PA 2502/96, was approved by the Planning Authority in 1997. Landscape archaeology was identified as the best solution to restore the landscape. (Bianco, L, *Environmental Planning Statement: Rehabilitation of disused softstone quarry at Tal-Ksajjem, I/o GHarb, Gozo*. Unpublished report prepared for the Parliamentary Secretariat for Gozo, Office of the Prime Minister, 1997). The philosophy underlying this project was in line with the spirit of the European Landscape Convention. The environmental impact assessment submitted as part of the studies conducted with this development proposal included numerous recommendations, mitigation measures, and monitoring indicators.

private individuals who are not signatories to the Treaty forming the European Union, may claim and enforce their rights pertaining to them. A Member State may be sued by any private individual for damages incurred due to lack of implementation of a European Directive.

- 5.3.2 The European Union Directives 1999/31/EC and 2001/42/EC call for a holistic and transparent approach to cultural heritage assets, directives which Malta is obliged to follow and implement. The European Union directive Strategic Environment Assessment 2001/42/EC which calls for a high level of analyses of policies, programmes and plans within which development projects are proposed, is of significant importance to the proposed interim engineered landfill at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir. The *Environment Impact Statement* does not contain a detailed study of the issue(s), including a critical evolution and assessment of why these sites were selected. In order for the authorities and the public to be convinced that the sites are the best environmentally sensitive option, a holistic strategic impact assessment in terms of this European Union Directive is solicited. It, at least, provides a check and balance with respect to the conclusions of the Confidential Report of June 2003 which has identified these sites for an interim landfill.¹³ Having a Committee made of officials from the Malta Environment and Planning Authority, the Malta Resources Authority and the applicant, with instructions from the Director General of the Malta Environment and Planning Authority to complete a site selection exercise within five days, lacks in the transparency required since it is prepared by the regulatory environmental and planning authorities responsible for the issue of planning permission with the applicant without the involvement, even at such a committee stage, of other stakeholders such as the various entities established by the *Cultural Heritage Act*, 2002, representatives from the Malta Tourism Authority and others.

6.0 National Obligations

- 6.1 There are a number of acts and legal notices which pertain to the area, of major importance are the *Cultural Heritage Act*, the *Environment Protection Act* and the *Development Planning Act*. Each give priority to cultural, natural and socio-economic assets present in the area. These legislation set up various regulatory entities

¹³ Confidential Report, *Identification of Quarry or Quarries for an Interim Engineered Landfill for Municipal Solid Waste*, June 2003.

including the Malta Environment and Planning Authority, the Superintendence for Cultural Heritage, Heritage Malta and the Committee of Guarantee. These entities are vested to draft national and local policies such as the *North West Local Plan*. It is imperative that development proposals, including the proposal for the interim engineered landfill at these sites do conform to these policies.

7.0 Site Selection Exercise

7.1 The Confidential Report, June 2003

7.1.1 The disused quarries at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir were first identified as sites for interim engineered landfills for municipal solid waste in the confidential report entitled *Identification of Quarry or Quarries for an Interim Engineered Landfill for Municipal Solid Waste* dated 9th June 2003. This report was drafted by a Committee, including members of the Malta Resources Authority, Malta Environment and Planning Authority officials within the Environment Protection Directorate and the applicant, WasteServ Malta Ltd. The Committee was set up by the Minister for Resources and Infrastructure and the Ministry for Rural Affairs and the Environment on 3rd June 2003. It had one week to identify an existing quarry or quarries for an interim engineered landfill for municipal solid waste.¹⁴ Instructions to the Committee, on behalf of the respective Ministers, were also communicated in writing by the Director General of Malta Environment and Planning Authority.

7.1.2 This confidential report justifies the selection of these two quarries as suitable sites for this project. It concludes that¹⁵

The main justification for these recommendations is that the development of an interim engineered landfill is a relatively short-term project (2 and a-half years) with only short-term potential negative impacts.

¹⁴ The Committee first met on 4th June 2003 and had until the 9th June 2003 to report back its findings (Confidential Report, *Identification of Quarry or Quarries for an Interim Engineered Landfill for Municipal Solid Waste*, June 2003, Section 1).

¹⁵ Confidential Report, *Identification of Quarry or Quarries for an Interim Engineered Landfill for Municipal Solid Waste*, June 2003, p. 15, Section 4, conclusion 6.

7.2 The Project Description Statement, July 2003

7.2.1 Subsequent to the confidential report, the Project Description Statement for the interim engineered landfill was issued by WasteServ Malta Ltd in July 2003.¹⁶ In Section 2.0 of the Project Description Statement, entitled 'Project Justification', there is a discussion on the need to meet the rehabilitation and restoration proposals of the *North West Local Plan*.¹⁷ In this discussion, there is a reiteration of a previous claim made in the same report that one of the main objectives of the project is to rehabilitate the quarries¹⁸

...through the infilling of the former quarry void space with non-hazardous and inert wastes and subsequently rehabilitate and restore these areas to beneficial after-use in accordance with environmental, cultural and landscape policies, which are primarily highlighted in the North West Local Plan (Draft), 2001

It further states: ¹⁹

It is considered that the rehabilitation and restoration of Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir disused quarry voids will contribute to the long-term rehabilitation and provision of a number of planned afteruses as described in the North West Local Plan.

7.2.2 The Project Description Statement issued in July 2003, the major premise on which the Environment Impact Assessment is grounded, fails to comply with Legal Notice 204 of 2001 since it does not provide a sound baseline detailed description of sites considered sufficient to identify likely impacts of the proposed development on the human, natural and cultural environs. Such a detailed project description, viewed in the context of local, European Union and other policies, planning and otherwise, is what is required from the Project Description Statement at law. The Project Description Statement, although accepted by Malta Environment and Planning Authority as a basis to formulate the Terms of Reference for the Environment Impact

¹⁶ Ministry for Resources and Infrastructure, *Restoration of Quarries by Infilling with Inert and Non-hazardous Wastes: Project Description Statement*, WasteServ Malta Ltd, July 2003.

¹⁷ Ibid, p. 13, Section 2.2.5.

¹⁸ Ibid.

¹⁹ Ibid.

Assessment, fails short from this requirement. In terms of the Project Description Statement Guidelines, the Project Description Statement had to include²⁰

A brief indication of the alternative uses and locations considered, including suitable alternative locations and sites for the proposed development and alternative uses or arrangement of land uses, on the proposed site.

7.2.3 The Project Description Statement outlines the site evaluation criteria and site selection methodology employed, but does not objectively map how the various quarries considered were studied, assessed and evaluated and how the quarries at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir were shortlisted.

7.3 Other Considerations

7.3.1 Prior to the Confidential Report of June 2003, two other documents of significant importance, which none of them make reference to quarries at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir, are worth citing on the subject. These are

1. The Project Description Statement of April 2002 and
2. The Audit and Review Report on Existing Information

7.3.2 The Project Description Statement of April 2002, entitled *Development and Operation of a Controlled Landfill and Ancillary Facilities: Project Description Statement*,²¹ discusses site specific considerations²² and underlines preliminary conclusions.²³ This Statement concluded that²⁴

Accordingly, it is proposed that detailed site investigations and the planned EIA be focused on two site locations:

²⁰ Project Description Statement Guidelines, Section A.7. Copy attached as Appendix A to Ministry for Resources and Infrastructure, *Restoration of Quarries by Infilling with Inert and Non-hazardous Wastes: Project Description Statement*, WasteServ Malta Ltd, July 2003.

²¹ Ministry for Resources and Infrastructure, *Development and Operation of a Controlled Landfill and Ancillary Facilities: Project Description Statement*, Works Division, Malta, April 2002.

²² Ibid, pp. 60-70.

²³ Ibid, pp. 71-74.

²⁴ Ibid, pp. 72-3.

- Ghallis. based on a scheme involving the progressive excavation, removal and storage of the usable stone beneath the site and exploitation of the void space thereby created for the landfilling of wastes.
- Benghisa (Tal-Harrub). based on a landraise scheme without any excavation.

It is also proposed that, unless the detailed site investigations and EIA reveal major and overriding objections to the development of either of these two sites, the other short-listed sites should not be given any further consideration.

7.3.3 *The Development and Operation of a Controlled Landfill and Ancillary Facilities: Audit and Review of Existing Information*,²⁵ dated February 2003, prepared by SLR Consulting Ltd in association with AIS Environmental Ltd on behalf of the Ministry for Resources and Infrastructure of the Government of Malta makes no mention of a controlled landfill at the quarries at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir. This report, essentially a review of information as its sub-title reads, including existing policy context²⁶ and waste statistics,²⁷ lists, in terms of land use and environmental assessment, seven shortlisted sites for prepared controlled landfill and ancillary facilities which excluded the quarries at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir.²⁸ These quarries were neither shortlisted and much less favoured as the preferred sites. The concluding discussion,²⁹ which includes recommendations on preferred sites, makes no reference to these quarries.

²⁵ SLR Ref. 4C/585/001. This report consists of six (6) sections: introduction, policy context, waste statistics, general facility requirements, land use and environmental assessment of shortlisted sites and conclusions.

²⁶ SLR Consulting Ltd and AIS Environmental Ltd, *Development and Operation of a Controlled Landfill and Ancillary Facilities: Audit and Review of Existing Information*, February 2003, Section 2, pp. 3-8. In the policy sections, the report briefly discusses European Union directives and guidance, the Structure Plan (1990-2010) of the Maltese Islands, the Waste Management Subject Plan of the Maltese Islands, the Minerals Subject Plan (February 2002) and the Solid Waste Management Strategy for the Maltese Islands (October 2001).

²⁷ Ibid, Section 3, pp.9-13.

²⁸ Ibid, Section 5.0, pp.17-34. The shortlisted sites were Ghallis ta' Gewwa, Wied Ghammieq, Zonqor, Wied iz-Ziju, Ta' Majru, Benghisa and Wied Moqbol. The last site was not shortlisted in the Project Description Statement of April 2002.

²⁹ Ibid, Section 6.0.

8.0 Alternative Options Assessment

- 8.1 In the submission of Qrendi Local Council to the Malta Environment and Planning Authority in response to the latter's invitation for comments on the Project Description Statement,³⁰ it was pointed out that in other major public infrastructural projects of national importance, the Malta Environment and Planning Authority has requested an Alternative Options Assessment study as the first stage of the required Environment Impact Assessment process.³¹ Such an assessment study would have been commendable in the case of the identified interim engineered landfill at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir.
- 8.2 The *Environment Impact Statement* makes mention of report(s) which shortlisted these sites for this proposed use. These reports refer to various European Union Directives related to the protection for groundwater against pollution by certain dangerous substances³² and integrated pollution prevention and control³³ but excludes reference to the European Union Strategic Environment Assessment Directive.³⁴ The choice of the disused quarries at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir, which was taken for granted by the *Environment Impact Statement*, had to be evaluated in terms of this directive to which Malta is committed to implement. The site selection exercise which the Statement takes unquestioned does not conform to European Union policy in strategic environmental assessments. Thus, the European Union safeguard to ensure that quarries chosen are the best environmentally sensitive options were ignored in the environmental impact assessment for the quarries subject of this study. The choice of these disused quarries located at sites of such national and international geocultural and natural

³⁰ Correspondence of Building & Design Consultants Ltd to Qrendi Local Council with respect to Ministry for Resources and Infrastructure, *Restoration of Quarries by Infilling with Inert and Non-hazardous Wastes: Project Description Statement*, WasteServ Malta Ltd, July 2003, dated 4th August 2003, p.6. This correspondence is essentially the report commissioned by Qrendi Local Council to furnish comments on the Project Description Statement published in July 2003.

³¹ Ibid, p.4.

³² Council Directive 80/68/EEC.

³³ Council Directive 96/61/EEC.

³⁴ Strategic Environment Assessment Directive 2001/42/EC.

heritage importance, infringes the methodology designed to ensure the best environmental sensitive decision put forth by the European Union.

9.0 Restoration Philosophy

9.1 Given that a quarry is a type of development which is irreversible, it was always the intention of Malta Environment and Planning Authority, then known as the Planning Authority before its merger with the Environment Protection Department, to rehabilitate the disused quarries at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir through infilling with inert construction waste. This position, reiterated in the *North West Local Plan*, was always understood in terms of infilling the quarry with inert construction waste, the main contributor to waste since the early 1990s. Prior issuing a refusal to the extension to the quarry at Ix-Xaghra tal-Maghlaq, the Development Control Commission had called on the applicant to discuss with the Planning Directorate³⁵

a scheme which takes into consideration the realistic and viable scheme for rehabilitation of this quarry ensuring consultations at all times with interested parties in particular Museums Department and Tourism. No further extension to the quarry is to take place

9.2 The final restoration profile recommended in the Project Description Statement, July 2003, and endorsed in the *Environment Impact Statement* is grounded in landscape archaeology. The introduction of inert construction waste, a significant portion of waste generated locally, at the disused quarries has long been considered by the Planning Authority, Museums and Tourism authorities and the Local Councils. Restoration and rehabilitation with inert material was always seen to help mitigate the visual impact of irreversible quarrying development which took place in the area. Such infilling was promoted by the said authorities, subject to satisfactory site management and lorry quotas sensitive to the heritage and socio-economic values of the environs. It would have mitigated the visual scar in the otherwise natural landscape.

³⁵ Position of the Development Control Commission taken with respect PA 3897/93 during its sitting of 18th April 1994.

10.0 Landscape Values

- 10.1 The geocultural landscape is made up of numerous architectural, archaeological and historical remains spanning six millennia of civilisation in the Maltese archipelago. The megalithic temple complexes of Hagar Qim and Mnajdra are of World Heritage significance with the latter in the list of endangered World Heritage sites. The natural environs, except for the irreversible quarrying activity which was brought to a standstill in 1994 by the Planning Authority, are crucial to the evolution of the history of the site.
- 10.2 The landscaping within this study area was studied in the *Environmental Impact Statement* from aspects of visual impacts. Visual impacts have a bearing on perception, but landscape issues at these sites are more complex. Besides the visual, topographical landscapes, there are landscapes which the *Environment Impact Statement* ignores. The environs within which the quarries are located are pregnant geo-cultural settings. The monument approach taken up in drafting and assessing the cultural assets in the area is dated to a number of decades ago. This approach has long been superseded by a more holistic approach as explained by the various international conventions related to cultural heritage which defines the site not as the monument itself, but in terms of the geo-cultural, anthropological and natural contexts in which it occurs.
- 10.3 Given the high sensitivity of the landscape surrounding the area and its educational and leisure values, the proposal should be assessed with respect to these themes. WasteServ Malta Ltd's Head of Strategy engineer was quoted as stating³⁶
- It is acknowledged that slight temporary inconvenience will be experienced in the close proximity of the site, it should result in a longer term benefit through the rehabilitation of the area as the EIA characterizes.
- The issue at stake is not convenience but credibility. Credibility of being able to appreciate and take care of our cultural and natural capital for present and future generations, whether local and foreign.

³⁶ *Malta Today*, 'Doubts about Malta's ability to keep May 1 commitment for engineered landfill confirmed', February 1, 2004.

11.0 Final Comments

- 11.1 The proposal is to infill the disused quarries with non-inert material at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir, within the highly cultural and natural landscapes including the megalithic temple complex of Hagar Qim and Mnajdra. Given that other monuments of antiquity and history, together with the rich cultural anthropological legacy of the area, the *North West Local Plan* prepared by the Malta Environment and Planning Authority designates the area to be safeguarded and developed into a heritage park. The proposal, as the Project Description Statement July 2003 states, is effectively to develop an interim, for two and a half years, engineered landfill at the site of the remaining oldest architectural structures in the world civilisation. This runs counter to the strategic thinking of cultural heritage authorities in Malta to rehabilitate the area into a Heritage and Archaeological Park. The proposed interim landfill is likely to cause permanent and irreversible damage to the cultural and natural environment.
- 11.2 The *Environmental Impact Statement* for the restoration of disused quarries at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir following their use as an interim engineered landfill for municipal solid waste does not evaluate the suitability or otherwise of the proposed development but identifies mitigating measures that will eliminate or reduce these impacts to acceptable levels. This defies the scope of the environment impact assessment. The role of environmental impact assessments in relation to the planning process is to identify environmental impacts which a development is likely to generate and to recommend mitigating measures to reduce or avoid such effects. Environmental impact assessments are not intended as a means to justify a development. Otherwise, it would undermine the whole objective of sustainable planning and would give the wrong signals to the public at a time when environmental credibility is all out important.
- 11.3 The information provided in the *Environment Impact Statement* leads to a conclusion that quarries at Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir are not suitable for interim engineered landfills for non-hazardous and municipal wastes, but, in line with the *North West Local Plan* and the position of the Development Control Commission when discussing the applications for their extensions, supported by the position of other government agencies responsible for culture and tourism, these disused quarries should gradually and incrementally be infilled with inert material.

- 11.4 Given that the *Environmental Impact Statement* did not consider alternative sites for the location of an interim engineered landfill and that the underlying objective of the environmental impact assessment was “to identify mitigating measures to eliminate or reduce impacts to acceptable levels”,³⁷ data collected as part of the environmental impact assessment is not complete and thus conclusions drawn are not informed. Conclusions are drawn on limited knowledge, either assumed or ignored. If grounded properly the environment impact assessment is a very useful tool. If the premise on which it is grounded is weak such as the site selection exercise and the Project Description Statement, then the environment impact assessment is of a highly limited, albeit effectively promoting, tool. Furthermore, in order to identify the optimal environmental option, the *Environment Impact Statement* should not be limited to the sites identified but should evaluate alternatives. This scenario becomes very crucial in the landscapes surrounding the identified sites for engineered landfill of significant cultural and natural value.
- 11.5 In the case of Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir quarries, the compatibility or otherwise of the proposed interim engineered landfill, or any proposal that these sites will be designated for, have to be assessed with respect to the landscapes arising from these settings.
- 11.6 The premise underlying the creation of an interim engineered landfill is that the site identified at Ghallis to develop a long term controlled engineered landfill will be excavated to increase its capacity whilst extracting the industrial mineral present. This option is viable if material quarried is of quality required by the construction industry. The quality of the deposits may seriously limit the economic potential of the minerals present and, within the national waste strategy framework, interim landfills may not be required.
- 11.7 On bringing the attention to the public that WasteServ Malta Ltd intended to set up an interim engineered landfill at the disused hardstone quarries of Ix-Xaghra tal-Maghlaq and Il-Qasam il-Kbir, Qrendi Local Council drew the attention of UNESCO on the case. The position of the Maltese National Commission for UNESCO, communicated to Qrendi Local Council on 13th November 2003, is such³⁸

³⁷ Confidential Report, *Identification of Quarry or Quarries for an Interim Engineered Landfill for Municipal Solid Waste*, June 2003, p. 15, Section 4, conclusion 2.

³⁸ This correspondence, received at Qrendi Local Council on 19th November 2003, was the response of the Maltese National Commission for UNESCO to the correspondence of Qrendi Local Council

While the National Commission urges all concerned to take every possible action to safeguard the National Heritage, and to avoid any measures which might harm the National Heritage, it feels that it is not the opportune moment to intervene in this matter one the Government of Malta and UNESCO are discussing the best methods towards an equitable solution.

- 11.8 Non inert waste, domestic or otherwise, even if for an interim period of two and a half years, is incompatible with the location of these disused quarries. To justify the interim engineered landfill at these sites is an insult to the cultural milieu of Malta, an insult to the sacredness of the place and to past, present and future generations, to their belief, memory and their very existence. Thus, the proposal for the engineered landfill at these disused quarries challenges the credibility of local authorities, including the Malta Environment and Planning Authority, with respect to cultural heritage and management. Considering an interim engineered landfill at such a site is an insult to the roots of our culture and identity. Furthermore, considering and justifying such a development proposal illustrates that either, as a country, Malta has not understood the concept of a World Heritage Site, the relevant UNESCO convention and other European conventions and directives, or that it is making light of the responsibilities imposed by same. In either case, it is Malta's credibility which is suffering, as well as the standing of the local sites included in the World Heritage List and as the oldest relics of prehistoric Mediterranean civilization.

of 15th July 2003 concerning the possibility of setting up landfills at the said sites. The letter of the Commission was copied to Dr Louis Galea, Minister of Education and Francesco Bandarin, Director, UNESCO's World Heritage Centre.
