1. NON TECHNICAL SUMMARY

1.1. Introduction

This document presents the Environmental Report of the Strategic Environmental Assessment (SEA) of the updated draft Master Plan for the Vasilikos area which was prepared for the Ministry of Energy, Commerce, Industry and Tourism of the Government of Cyprus by Poten and Partners Inc. and ALA Planning Partnership Consultancy L.L.C in 2015.

The current version of the Vasilikos Area Master Plan takes into consideration the significant discoveries of natural gas in late 2011 in deepwater Block 12, as well as the potential for further offshore gas discoveries and how these developments affect the needs for additional space requirements to enable construction of several LNG liquefaction plants as well as government policy to move hydrocarbon storage from Larnaca to Vasilikos.

The current Strategic Environmental Assessment assesses the impacts from the implementation of actions described in the Draft Final Master Plan in order for the Final Master Plan to be prepared.

1.2. The Vasilikos Master Plan

According to the Terms of Reference of the Master Plan, prepared by the Ministry of Energy, Commerce Industry and Tourism (MECIT), it’s overall objective is “to offer a complete picture of the area and to examine whether the existing facilities and the proposed future projects and general development of the area for the next 30 years will be compatible with current facilities, based on risk, safety, security, environmental and social consideration”.

In order for that general objective to be achieved, the Master Plan identified the existing facilities in the area, examined their compatibility with the proposed facilities and contributed in the planning of the development of the area in such a way that both current and future establishments would operate in an efficient, cooperative, safe and environmentally sound manner. Furthermore, the Master Plan evaluated and made recommendations to ensure the safety, security and environmental compatibility of the future developments, especially the LNG plants and Cyprus operational and strategic stocks.

The result of this process was the designation of areas for particular uses in order to ensure that properly designed facilities or activities can be safely accommodated. Thus, based on the Terms of Reference provided by the Ministry of Energy, Commerce Industry and Tourism, the Master Plan study comprises the following key objectives:

1. Provide a framework that will enable the optimum industrial development of the area

2. Allocate Land and provide the framework for hydrocarbon storage and other Gas Based Industries and associated infrastructure
3. Allocate land (LNG Zone) for LNG installations taking account of the potential discovery of further significant gas reserves

4. Provide the framework for the upgrading or development of new infrastructure installations in the Vasilikos Area

5. Development of the area paying particular attention to social, environmental, security, risk and safety aspects.

Each of these Master Plan objectives was followed by a list of relevant actions which, in turn, were assessed against the selected SEA Objectives in order to identify the significant environmental effects of the plan.

1.3. The Strategic Environmental Assessment

This document constitutes the Environmental Report of the SEA which aims to present the predicted environmental effects of the plan, including alternatives, in a form suitable for public consultation and use by decision-makers. A Strategic Environmental has been prepared according to the National SEA Law (N. 102 (I) /2005).

The immediate study area of the present SEA corresponds with the Vasilikos Master Plan Area limits which is presented below in Figure 1.1. The wider study area includes the community of Mari and the communities of Pentakomo, Asgata, Kalavasos, Tochni, Zygi, Psematismenos, Maroni and Choirokitia.
However, environmental resources such as air and water, or certain environmental effects of the Plan, are not contained within fixed boundaries. Therefore the area for which a baseline analysis and impact assessment was conducted has been adjusted accordingly, depending on the environmental (SEA) topic. For example, socioeconomic issues have been examined at the local, regional and national scales, whereas the assessment of more localised matters such as landscape/seascape character was mostly limited to the immediate locale and surrounding communities.

Following the standard procedure of conducting a SEA, preliminary work in order to provide the necessary background information was conducted by the Study Team. This information, presented within this SEA Report includes:

- An outline of the contents, main objectives and relationship of the plan with other relevant plans and programmes that have been approved or submitted for approval in the surrounding area;

- A description of the current state of the environment and the characteristics of any area likely to be significantly affected by the implementation of the project, as well as details of the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan;

- Any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance;

- A general presentation of the alternatives considered and the reasons why particular scenarios were selected in the project;
A description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;

The likely significant effects on the environment were identified by assessing the Master Plan’s relevant Actions against the selected SEA Objectives. This is a recognised way of considering the environmental effects of a plan and comparing the effects of alternatives (Office of the Deputy Prime Minister, 2005).

Mitigation measures for these environmental impacts in order to prevent reduce and as fully as possible offset any significant adverse effects on the environment on implementing the plan were provided as well as a detailed environmental monitoring plan, which includes measures for effective monitoring and timely response to the impacts that may result from the implementation of the project.

1.4. Summary of Impacts

Based on the assessment conducted by the Study Team, the Key Master Plan Impacts are summarized below for each of the Environmental Topics assessed.

Topics such as Resource Efficiency, Material Assets, Socio-Economic Environment, Built Environment and Spatial planning all have a major-to-moderate positive impact. The impact to Air and Climatic Factors will be negative impact in the short term, however, long term impacts will be major positive since the Master Plan facilitates a shift from an oil-based to a gas-based power production regime. It must be noted that this positive impact in most cases is not confined in the Master Plan area but is extended on a national level.

Flora, Fauna and Biodiversity, Seascape and Landscape, Population and Human Health and Cultural, Archaeological and Architectural heritage will be impacted negatively. However, these impacts can be considered slight, can be easily managed through the enforcement of a number of mitigation measures included in the Master Plan, the SEA report and the various Environmental and Safety studies which are required to be carried out as part of the local legislation.

Other topics will bring about a moderate-to-slight negative impact. Most important negative impacts are for Water, Soil and Resource Efficiency and Waste. These are to be expected since the Master Plan refers to the heavy industrialization of the area. Thus, special consideration should be given to the environmental sector, especially since these topics are interconnected and severe negative impacts from one topic may affect another.

Still, negative impacts from the above topics are considered highly manageable through the application of a number of mitigation measures. Despite the fact that the Master Plan already includes an extensive list of mitigation measures, the current SEA Report includes additional
mitigation measures (see Chapter 13) that can be adopted in order to further alleviate the environmental impacts identified.

Below is a summary of the Key Master Plan Impacts for each of the Environmental Topics assessed:

**Air Quality**

Overall effect of the Master plan on air quality is expected to be extremely positive. Despite the fact that a number of actions proposed by the Masterplan (such as the extension of the B2 planning zoning boundaries to the east, the designation of several zones for the placement of gas based, oil storage and other relevant industries), will have negative short term impacts on air quality, the introduction of natural gas for the production of electricity for Cyprus and the subsequent long term drop in related emissions, is enough to counterweight these moderate negative impacts.

**Climatic Factors**

The implementation of the Master Plan is expected to have an overall major positive result both at local and national level since both main concerns (emission of GHG gases and climate change adaptation and mitigation) will both show a long term positive impact in the local and national level.

Considering the emission of GHG gases, despite the fact that new installations, an increased traffic and shipping load as well as the existence of the quarry are all expected to have a moderate negative contribution to the emission of GHG gases, the shift to gas produced energy in the long run will counterweight these short-and-medium term local effects. The arrival of natural gas at Vasilikos will allow the power station and the cement plant to convert away from burning more polluting fuels such as heavy fuel oil. Overall, there will be a reduction in emissions such as particulates and sulphur dioxide nation-wide, with nitrogen oxides showing an increase.

**Soil**

Since the Master Plan proposes the extension of the industrial zone and the development within this zone of a number of industries, the effects on soil quality are expected to be moderately negative. Activities such as building the LNG Plant and associate industries, the extension and upgrade of the port, the establishment of the Proposed Protection Zone, the laying of pipes, the relocation of the quarry as well as the extension of the road network will result in effects such as soil sealing, topsoil loss, coastal erosion, seabed changes, possible soil degradation and contamination in the area.

Impacts from new developments are also expected to occur to areas with fertile and productive agricultural land.
Water

The industrial development of the Vasilikos area proposed in the Master Plan is expected to have moderate negative effects on groundwater, surface water and sea water quality as well as increased water consumption. The extension of the industrial zone will incorporate within part of the Vasilikos river significantly elevating pollution levels in both river water and groundwater. Quarry activity and building of several infrastructures within the area will also moderately affect water quality: removal of topsoil vegetation will result in reduced evapotranspiration, increased effective rainfall and, finally, runoff and sedimentation resulting in reduced groundwater quality. Topsoil removal will also affect natural filtration which also leads to reduced groundwater quality. Furthermore, increased industrial activity in the area is certain going to raise water consumption levels. Sea water quality is expected to slightly deteriorate through increased levels of sea traffic in the area and through the possible use of sea water cooling systems from the LNG Plant.

However, an upgrade of the water supply, desalination, sewage and irrigation networks proposed by the Master Plan will positively affect sustainable water usage while a number of Marine/Port Safety measures will prevent further deterioration of sea water quality.

Material Assets

The impact to material assets is considered generally positive. The industrial development of the Vasilikos area proposed in the Master Plan will require both the expansion of the industrial area as well as the establishment of a number of new gas and hydrocarbon based installations in the area. However the Master Plan utilizes existing installations, infrastructure and mineral resources wherever possible. The upgraded road network will be designed based on the existing network and its expansion will be initiated in steps. Special care will be given not to bisect plots of land, with the road network or with pipe infrastructure, thus deeming them less usable and reducing soil usage.

Along with the road network, a number of other vital infrastructures and networks will be upgraded (telecommunications, electricity and distribution networks, water supply, sewage, irrigation utilities). There is a possibility that the Vasilikos port will also be upgraded to include a bitumen berth and an LPG import berth. Considering the latter, the measures taken for Marine and Port safety will lead to better utilization and improved performance of the existing marine installations. Also, the existing VTTV Jetty will be spurred off to provide additional oil import capacity.

Finally, the Master Plan proposes that all new installations will be initiated in steps if and when it will be deemed necessary: Phase 2 for the LNG Plant will not begin until additional gas discoveries are confirmed and quarrying activity will not be relocated outside the area.

Negative Impacts are the removal of Archirodon Port as well as the removal of every fish farm between Cape Dolos and Zygi.
**Resource Efficiency and Waste**

With regards resource efficiency, the Master Plan will lead to both positive and negative Impacts.

Indeed, the shift from oil and other heavy fuel to natural gas achieves a resource-efficient, green, and competitive low-carbon economy on a national level and further promotes sustainable patterns of national production and consumption. Furthermore, the measures proposed for Marine and Port safety as well as provisions for emergency response actions will ensure sustainable operation of elevated port traffic levels and contribute to reign-in any possible negative effects from the elevated marine traffic in the area.

However, the establishment of a number of new industries in the area will inevitably lead to elevated levels of waste production.

**Seascape/Landscape**

It is widely recognized that further expansion and development of the current industrial site in Vasilikos and the subsequent installation of the proposed hydrocarbon and gas based industries will further downgrade the visual character of the area; however, it is also generally accepted that, since the immediate area is already heavily industrialized, the scale of the impact will be small to medium.

The proposed area of the Master Plan is partly located within an enclosed valley and this topography provides from some locations a natural barrier between the site and surrounding residential areas. There will be no expansion outside these borders, preventing any further downgrade of the immediate area.

**Flora, Fauna and Biodiversity**

The general impact of the Master Plan on flora, fauna and biodiversity is considered moderately negative. Further extension of the existing B2 planning zoning boundary to the east along with the other proposed changes in Zone Planning, along with the proposed establishment of various installations in the area is expected to have a moderate negative impact on local flora and fauna in the area mainly through the negative effects on soil and water quality as well as waste production. The negative impact from air quality is considered short-to-medium term since air quality is expected to improve long-term at national scale as the shift from an oil based power production to a gas based one is under way.

Quarrying activity, the operation of the LNG Plant and other industries within the Master Plan area, the upgrade of the road network and the port and the subsequent elevated traffic (in vehicles and sea vessels) apart from the negative effects on water and soil (as described above) and the short-to medium term negative effect from air quality deterioration will result in additional negative effects resulting from the production of dust (mainly on flora) and noise (mainly on fauna). The wider area includes three migratory bird corridors (running along the Vasilikos, Maroni and Pentaschoinos rivers) and the light and noise may disturb migratory birds. However, the area is already heavily
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industrialized, so the negative effect from the additional noise and light pollution is expected to be slight.

Furthermore, apart from one plant species (Erodium cassifolium) there are no endangered or rare species within the area and the nearest designated NATURA 2000 sites are well away from the site and are not expected to be affected.

Marine flora and fauna in the area is also expected to be affected negatively. The main reason for this is the expected deterioration of sea water quality caused by the Marine installations activities, cooling water, oil spills, discharging of waste or contaminated water into the sea, discharges from sea vessel traffic arriving and departing from the area, etc. Additionally, underwater noise levels from the additional sea traffic load in the area are expected to rise affecting marine fauna in the area. Dredging for the laying of the oil and gas pipelines, as well as the construction of the LPG berth will negatively affect the seabed.

**Socio-economic Environment**

The actions such as the extension of the Industrial zone, the establishment of a gas-based industry zone, the creation of a zone for LNG facilities, the update of the road network and other vital infrastructure networks will all facilitate the creation of a hydrocarbon and petrochemical industrial cluster in the area. This is considered extremely positive since it will create new jobs, attract investments, add revenue from taxes and create further industrial activity mainly in the shipping and energy sectors.

The implementation of the Master Plan and the linked relocation of the LPG and oil storage facilities from Larnaka to the Vasilikos Area, will result in substantial short to long term positive socio-economic, safety and security impact to Larnaka, since the area in Larnaka is likely to be developed in the future with Tourist uses (currently Larnaka Municipality is preparing an Area Scheme for the area).

The creation of new jobs through the industrial development of the area has the potential to attract more residents in the long term since employment is already high in the surrounding communities and the existing local population will not be able to cover the emerging needs in personnel. This is likely to be combined with a long term increase in property values as more people will relocate to the area for employment.

Furthermore, employment opportunities will cover a wide range of skills and expertise which will attract more people in the area and will provide opportunities for the permanent residents. Connectivity with the rest of Cyprus will be enhanced by the new road network, upgrade of the local utilities and infrastructure will raise quality of life while the increase in industrial activity is not considered so severe that people will opt to leave.
Finally, the implementation of the Master plan contributes in the development of the hydrocarbon
and petrochemical industry in Vasilikos, which will result in a nation-wide switch from the current oil
based energy production to a greener, more competitive and low-carbon economy, based on
Cyprus’s own energy resources thus enhancing sustainability and security in the energy sector.

However, some moderate negative impacts also exist. The industrial development of the area may
have slightly negative impacts to the property values of residential areas in close proximity to the
industrial cluster (such as Tochni, Zygi, Pentakomo and Mari) in the short term. Also, the additional
development of the industrial character of the area is likely to create a negative impact in the tourism
sector. Some of the proposed developments will require relocation of facilities (such as the
Archirodon Port and the fish farms between Cape Dolos and Zygi) resulting in a moderate negative
impact on the aquaculture and fishing sectors.

However, despite the aforementioned negative impacts, general impact of the master plan on the
socio-economic environment is considered a major positive.

**Population and Human Health**

The Oil Products Storage area, the LPG storage areas as well as the hydrocarbon handling jetties
constitute potential hazard sources and have the potential to create (if the necessary precautions are
not enforced) problems for both man and the environment. This has been taken into account by the
Master Plan which provides ways to control such issues through mechanisms such as implementing
appropriate separation distances and planning protection zones.

Noise and light pollution, are also negative aspects of the industrial development of the area.
Negative impacts on air quality, soil, water, flora, fauna and biodiversity and waste production and
management will also affect Human health. Generally, the Master Plan is expected to have minor
negative impacts.

However, the Master Plan includes Climate Change Adaptation Actions which will increase
resilience of proposed infrastructure in the area. Finally, it is assumed that every installation will
adhere to safety and environmental regulations according to its specifications and that EIAs will be
conducted which would include appropriate measures.

It is important to note also that the Masterplan is proposed in an area close to the Evangelos
Florakis Naval base which could provide an extra tier of security in the area.

**Built Environment and Spatial Planning**

Overall effect of the Master Plan on this sector and the sustainable growth of industrial areas is
considered highly positive. Zones have been proposed in the masterplan which designate uses for
hydrocarbon activities (LNG Plants, Oil Storage Facilities, other gas based industries etc). Such
planning zones do not exist in Cyprus and the gas findings so far (in Cyprus and in the wider region) indicate that there is an immediate need for such zoning.

The outcome of this zoning is that it forms a cluster for hydrocarbon industrial activities in the Vasilikos Area, which will be the only such Industrial Area in Cyprus. The Vasilikos Area is the only such area with direct sea access and is therefore ideal for the placement of such uses. The gradual development of the cluster (for the storage areas and the LNG trains, as well as the road network) is regarded as a sound economical strategy aiding the sustainability and financial standing of the project. The clustering of the hydrocarbon facilities, however, creates a risk that a major accident may impact all the storage facilities. However, this risk is mitigated in the master plan by separation distances proposed between storage tanks and different kind of facilities and by the use of firefighting and water drenching equipment. The protection of the environment and the local population is further protected by the Protection Zones proposed.

However, and as stated by the Department of Town Planning and Housing in their letter dated 15 June 2015, the allowance of light industries and workshops within the Planning Protection Zones (Section 6.2.5.2 of the Master Plan), goes against the Planning philosophy of the function of Planning Protection Zones and promotes the unrestrained development of such industries within Protection Zones. As such, it negates the character and function of the Planning Protection Zones since it allows uses within these zones that do not agree with their purpose. The sustainability principles addressed by such zoning are therefore not addressed.

Furthermore, the number of allowed personnel per building (100) for the light industries is extremely high and does not agree with the parameters currently existing in Cyprus, since such high numbers are not encountered even in large Industrial installations within Industrial Areas.

The Master plan also proposes a new Light Industry Zone (Γ3-E1), further to a demand by the local communities, to the north east part of the study area. However, the designation of this zone to a New Light Industry Zone, can not be justified according to the area’s current needs. This opinion also agrees with the Department of Town Planning and Housing (See Table 7.17 in the current SEA, communication 19th November 2014) who is the competent authority for the designation of Planning Zones in Cyprus. The DTPH states that if the needs and circumstances demand it, in the future this particular Zone could be designated to a light Industrial Zone to serve the needs of the Energy Center and the wider area. Also the area is not developed sufficiently (lack of road network, electricity, water network) to be able to currently accept the uses in the proposed zone. It is expected that with the gradual development of energy and hydrocarbon installations in the Vasilikos Area, the area will attract light industries which would support the gas based and hydrocarbon installations. In the future, it is expected that the appropriate conditions will be created, which together with the development of the necessary infrastructure will justify the designation of this zone to a light Industry Zone (E1).
The proposed change from Protection Zone to Light Industry Zone, clashes with the agricultural uses and the protection zone of the area which are to be found adjacent of the proposed zone.

Climate adaptation actions adopted by the Master plan are evidence of good industrial practice conducted in the area while further elaboration and refinement of planning zones and PSC policies will aid the sustainable development of the industrial cluster of the area by constantly evaluating and responding to rising challenges.

The designation of industrial zones for hydrocarbon activities, affect part of the Mari village and the Mari inhabitants since the inner and outer protection zones proposed cover part of the Mari Residential Planning Zones.

Considering maritime and coastal activities, the gas based industrial development of the area will be significant for the Vasilikos Port not only because of the additional income and employment that it will generate, but also because it will help to diversify the role of the port and make it less dependent on any one activity. The proposal for the establishment of an LPG berth creates synergies between operations whilst economizing both space and expenses. The same is true for the spurring of the VTTV jetty to provide additional oil import capacity. The gas based industry operation, along with the subsequent rise in sea level traffic will boost the shipping industry of the area. The establishment of a gas export pipeline provides an alternative way of exporting natural gas besides shipping, diversifying the distribution options of natural gas. Climate Change Adaptation and safety Maritime/port measures also contribute to the sustainable growth of maritime and coastal activities.

However, the elevated sea traffic will degrade sea water quality through waste discharge and as will the possible sea water cooling systems used by the LNG Plant, possibly resulting in negative impacts on tourism, fishing, and bathing. Also, the relocation of two fish farms (Telia Aqua Marine Public and Seawave Fisheries Ltd) and the subsequent banning of fish farming in the area between Cape Dolos and Zygi is considered a negative impact of the Master plan.

**Cultural, Archaeological and Architectural heritage**

The implementation of the Master Plan will have slightly negative impacts on the Cultural, Archaeological and Architectural heritage of the area. Mari, Tochni, Pentakomos and Zygi may be affected by the significant industrial development of the area. Despite the fact that the area was already heavily industrialized, the expansion of the B2 Heavy industry zone might jeopardize the traditional cultural background of these villages.

The impacts to the local antiquities are expected to be negative, as the strengthening of the industrial character of the area combined with the subsequent increase of industrial uses and air pollutants will generally downgrade the importance and attractiveness of the cultural, archaeological, and architectural sites as well as the natural environment of the area. However, the arrival of natural gas at Vasilikos will be integral to the shift from an oil-based to a gas-based power producing
industry, with nation-wide positive impacts. The existence of the LNG Plant (and the conversion to gas-use) will allow the power stations and other industries in Cyprus to stop burning more polluting fuels such as heavy fuel oil and long term reduce the possible impact to antiquities caused by acid rain.

There are a number of archaeological sites within the area of the Master Plan that might be directly affected by the developments proposed.

Specifically, Site 5 (Kalavasos Loures), Site 1 (Mari Koupetra), Site 4 (Kalavasos Voudomantra) and Site 6 (Tochni Lakkia) are all likely to be affected. It must be noted that all possible development which may affect these sites, would first have to be discussed with the Antiquities Department.

Minor impacts may also be observed at the archaeological sites of Choirokoitia and Kalavasos (especially the first) due to the general increase in air pollutants in the area by the intensification of industrial use, possibly resulting in acid rain and the possible erosion of antiquities.

One site of natural importance which is going to be negatively affected is the Vasilikos river since a large part of the river is going to be included in the Heavy Industry zone. Appropriate measures need to be taken by any developers in order to ensure the good water quality, the environmental health of the river eco-system and that any risk to flooding is mitigated. Such measures should be proposed in the EIAs which will need to be prepared for each major development in the area.

Remnants of the Vasilikos - Kalavasos Mineral Railway, can be found east of the site and located in the areas zoned for Phase 1 Oil Storage and Phase 2 LNG. Although remnants in the area may be sparse, key remains may have high cultural value. It is important that any key remnants are identified and protected accordingly.

1.5. Proposed Mitigation Measures and Recommendations

Mitigation measures for each and every SEA Topic are provided within this report (see Chapter 14). In addition, general measures and recommendations encompassing a wide array of environmental issues are also provided and their adoption is highly recommended. The Proposed Mitigation measures and recommendations are too many to present in this Section, however such measures include:

- Establish network of (air quality) measurement stations
- Initiate Government campaign promoting a shift from the use of oil and other heavy fuels to natural gas
- The preparation of specific measures/actions for the mitigation of climate change impacts
- Identification and preservation of good agricultural soil
- Establish an Integrated Water Quality Plan for the area
• Promote or enforce the use of grey or recycled water in the area
• Safeguard watercourses which may be at risk
• Development of a communal Waste Management Plan for the area
• Promote measures/actions to enhance visual amenity
• Prevent light pollution
• Promote a tree planting Programme in the Vasilikos Area and specifically within the Planning Protection Zone
• Review and revise existing information on species and habitats in the project area.
• Prepare a Biodiversity Protection Plan
• Create a communication platform between local industries and local communities.
• Prepare an Emergency Response, Disaster Management and Evacuation Plan for the area
• Further promote the creation of synergies and links between industries in the area
• Preparation of Planning Study regarding the justification of proposed Kalavasos Light Industry Zone
• Preserve cultural identity of the area
• Preserve, promote and protect local Archaeological Sites
• The establishment of a General Environmental Committee, composed of members of the local community, government officials from the appropriate departments as well as developers and stakeholders in the oil and gas industry (as well as any other industry developed within the Master Plan area). Such a Committee should perform duties such as ensure co-ordination and consultation with other Committees and relevant government departments where responsibilities overlap on issues of environmental protection, make recommendations to relevant authorities related to long term planning, monitor the activities and the implementation of environmental programs and projects in the area, etc.
• Revision of the Vasilikos Master Plan in regular intervals in order to address changing conditions in all SEA topics since there is a long term aspect of several projects addressed by the Vasilikos Master Plan.

1.6. Conclusions

Based on the assessment conducted by the Study Team, most of the Master Plan impacts are considered from positive to extremely positive and will successfully meet most of the SEA Objectives and Sub Objectives. Topics such as Resource Efficiency, Material Assets, Socio-Economic Environment, Population and Human Health, Built Environment and Spatial planning achieve a major-to-moderate positive impacts while Air and Climate Change, although they have a negative
impact in the short term, will have major positive long term impacts for the island. It must be noted that this positive impact in most cases is not confined in the Master Plan area but is extended on a national level.

However, the implementation of the Master Plan will result in moderate-to-slight negative impacts on a number of environmental topics. The most important negative effects will result on Water, Soil and Waste, which is to be expected since the Master Plan promotes the heavy industrialization of an area. The negative effects on flora, fauna and biodiversity, seascape and landscape, human health, and cultural, archaeological and architectural heritage are considered slight.

The impacts of the Master Plan to air quality will be negative and significant in the short run. However the introduction of natural gas into the Country (facilitated by the Master Plan) and the shift away from fossil fuels will significantly reduce emission and result in an overall positive impact to air quality, at a national scale.

However, the negative impacts to the above receptors are considered highly manageable through the application of the mitigation measures proposed by the SEA. The Environmental Impact Assessments conducted for major projects developed (if and when required by Law) within the Master Plan area will propose tailored and precise solutions that will effectively mitigate potential negative effects.

Furthermore, all new installations with hydrocarbon storage facilities that fall under the SEVESO Directive, will have to be subject to the relevant Safety Studies (Quantitative Risk Assessments or Consequence Analysis Assessments). These studies will identify the risk or the consequence from any possible accident and the owners of the installations will be forced to take the relevant measures to minimize the impacts of any accidents and to ensure the safety of the population of the area.

Finally it should be noted that, the Department of Labour Inspection which is the competent Authority for the control of Major Accidents and the Department of Town Planning and Housing which is responsible for the control of development in Cyprus, should not give their consent / issue Planning Permits for such installations, unless all Safety concerns are addressed.