



Submissions Report

Further to the

Draft Scoping Report

of the

Strategic Environmental Assessment

Greater Dublin Strategic Drainage Study

Report

by

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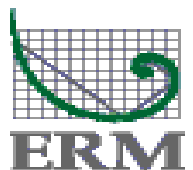
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1 Introduction

1.1 GENERAL

Mott MacDonald Pettit Limited (MPI) and Environmental Resources Management Ireland Limited (ERM) were appointed by Fingal County Council in November 2006 to undertake a strategic environmental assessment (SEA) of the strategy developed for the Greater Dublin Strategic Drainage Study (GDSDS).

The GDSDS (Greater Dublin Strategic Drainage Study) was commissioned in June 2001 by the seven Local Authorities in the Greater Dublin Area (Dublin City Council, Fingal County Council, South Dublin County Council, Dun Laoghaire-Rathdown County Council, Meath County Council, Kildare County Council and Wicklow County Council).

The purpose of the GDSDS was to carry out a strategic analysis of the existing foul and surface water systems of the seven Local Authorities. The GDSDS was prepared by the *Dublin Drainage Consultancy*, a joint venture between *Hyder Consulting*, *PH McCarthy Consulting Engineers* and *RPS-MCOS* (in association with *HR Wallingford*). The GDSDS was commissioned in June 2001 and the final Strategy Report was completed in April 2005.

One of the objectives of the GDSDS was to prepare a drainage strategy for future wastewater loads in the Greater Dublin Area. Following consideration of this strategy by the Elected Members of the seven Local Authorities, the request for an SEA to be undertaken on the recommended Strategy was made by the Members of Fingal County Council.

The purpose of the GDSDS SEA is to identify the likely significant effects of the GDSDS strategy and recommend amendments to the GDSDS strategy, if required. A central element of the SEA was to re-examine the strategy options in the GDSDS. A total of eight strategy options were presented in the GDSDS final Strategy Report.

Mott MacDonald Pettit and ERM Environmental Resources Management Ireland (ERM) were appointed in November 2006 to undertake the GDSDS SEA. Both Consultancies prepared the draft SEA Scoping Report and this Submissions Report.

1.2 BACKGROUND TO THE SUBMISSIONS REPORT

1.2.1 Overview of SEA

SEA is a formal, systematic evaluation of the likely significant environmental effects of implementing a plan or programme, before a decision is made to adopt the plan or programme. SEA in Ireland is based on *Directive 2001/42/EC (Assessment of the Effects of Certain Plans and Programmes on the Environment)*, more commonly known as the 'SEA Directive'.

The main objective of the SEA Directive is to “*provide for a high level of protection for the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.*”

As part of the SEA process one of the key requirements is to prepare a Scoping Report, the purpose of which is described below.

1.2.3 SEA Scoping

The second stage in the SEA Process (after the initial screening assessment to determine if an SEA is required) is the determination of the key issues which are to be addressed in the Environmental Report. Scoping seeks to ensure that the SEA is focussed on the relevant issues and that the process also examines these issues at an appropriate level of detail.

Consultation with the relevant designated environmental authorities is required as part of SEA Scoping. Public consultation is not required at the Scoping stage of an SEA, however it was decided early on in the assessment for this particular process that it would be beneficial to the overall project.

1.2.4 Scoping Submissions Report

This GDSDS SEA Scoping Consultation Submissions Report (referred to as Submissions Report hereafter) is a summary of the statutory and public consultation process arising from the issuing of a draft GDSDS SEA Scoping Report. This Submissions Report has three main objectives:

1. Identify the issues which were raised in the submissions;
2. Provide a response to the issues raised; and
3. Amend the SEA Scoping Report, if required or justified.

The draft SEA Scoping Report [document reference 232351(P9680)-N-R-02-B] was initially available for public and statutory consultation for a four week period. This period was subsequently extended by an additional two weeks, at the request of local interest groups in the Fingal County Council area. The draft SEA Scoping Report was made publicly available through all seven Local Authorities and was also made available on Fingal County Council's web site. The consultation period ended on *Friday 4th May 2007*.

In addition, a hard copy of the draft SEA Scoping Report was formally submitted to the designated environmental authorities (so designated under S.I. 435 of 2004 - the 'SEA Regulations'). These authorities are:

- Environmental Protection Agency (EPA);
- Department of Environment, Heritage and Local Government (DEHLG); and
- Department of Communications, Marine and Natural Resources (DCMNR).

A meeting with the EPA was conducted on *Thursday 3rd May 2007* to discuss the draft SEA Scoping Report.

A total of 188 submissions were received during the consultation period.

2 Submissions Overview

2.1 INTRODUCTION

This section presents the scoping consultation response methodology. All submissions were received and logged by Fingal County Council. Following conclusion of the consultation period, a hard copy of all responses was passed to the SEA Consultant Team, who then reviewed each submission.

In order to coherently address all the issues raised in the consultation process, the first step in the preparation of this submissions report was to identify similar issues where they occurred. The approach taken was to group the issues into common themes and then prepare a matrix which would cross-reference each individual submission against the relevant issue(s). This submissions matrix can be found in *Appendix 1 Submissions Matrix*.

A total of 17 broad issues were identified (including a final category of 'other' issues). These are summarised below in Section 2.2 and individually discussed in *Section 3 Submissions Response* of this report.

It should be clearly noted that all the submissions have been reviewed in detail and concerns expressed in them will have to be addressed throughout the lifetime of any project associated with the implementation of the Greater Dublin Strategic Drainage Strategy and not just at the Strategic Environmental Assessment stage. This includes, notwithstanding the nature of the ultimate adopted strategy, the design, procurement, construction, commissioning and operational stages of all infrastructure to be implemented within the Greater Dublin Area regardless of location.

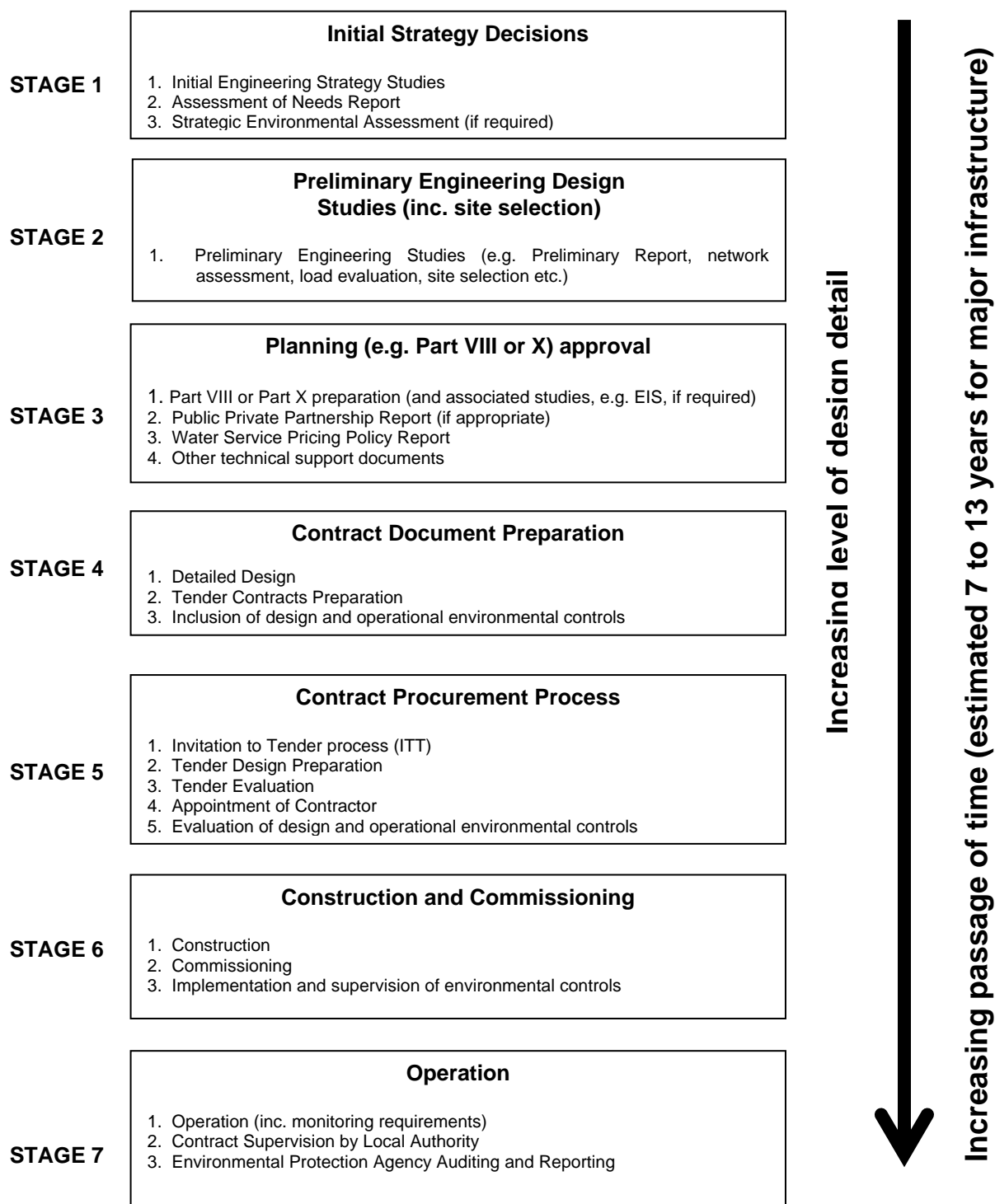
It should also be noted that not all the issues raised in the scoping can be addressed at this particular stage of the process as they relate to planning and environmental impact assessment, detailed design, procurement or operational stages on individual projects likely to be progressed to meet the needs of the Greater Dublin Area. For explanatory purposes, this Report includes overleaf a schematic (*Figure 2.1 Typical Infrastructural Project Development Process*) to give an overview of the stages which need to be completed for any proposed drainage infrastructure. The entire process typically will take a number of years to complete, particularly for the individual elements of infrastructure proposed.

2.2 SUBMISSIONS TYPOLOGY

A total of 17 broad issues were raised in the scoping consultation submissions received. These are summarised below. Within each section, a summary of the issues raised will be presented and this will be followed by a response to the issues raised. The groups of issues raised were:

1. Non-consideration of site-specific effects at Portrane;
2. Opposition to a large/regional wastewater treatment plant at Portrane;
3. Impact on 'Blue Flag' beaches and water quality status;
4. Consideration of inflow, infiltration and exfiltration;
5. Impact on ecological considerations;
6. Impact on human health from wastewater treatment facilities;
7. Impact on the beauty and amenity value of the Portrane area;
8. Inadequate public participation and consultation;
9. Equity, sustainability and the 'proximity principle';
10. Assessment of the Aquafact hydrodynamic model;
11. Contamination of groundwater/drinking water;
12. Devaluation of properties and businesses;
13. Odour impact;
14. Incorrect design concept;
15. Traffic considerations;
16. Sludge considerations;
17. Other Issues.

Figure 2.1 Typical Infrastructural Project Development Process



The Department of the Environment Heritage and Local Government Circular L1/06 Water Services Investment Programme – Revision of Approval and Recoupment Procedures sets out revised procedures in relation to the advancement of individual schemes included in the Water Services Investment Programme.

Figure 2.1 above is for general information purposes only and is not be considered to be a detailed representation of all tasks required to progress with all scales of drainage infrastructure. Figure 2.1 is not a legal interpretation of the regulatory or permitting requirements necessary for the proposed development of a piece of infrastructure. Various stages of the project development process require approval from the Department of the Environment, Heritage and Local Government and elected representatives/local authorities.

3 Submissions Response

3.1 NON-CONSIDERATION OF SITE SPECIFIC IMPACTS AT PORTRANE

Issue Raised

Almost 60% of submissions raised this issue. The general submission argues that the Draft SEA Scoping Report is "seriously flawed because it explicitly excludes considering the environmental impact of a regional treatment plant at Portrane". Many submissions then link this statement to the SEA process being legally inadequate and "in breach of EU and Irish Law", on the basis that the SEA is not considering the likely significant effects on the environment of the plan or programme (i.e. the GDSDS recommendation for a regional plant).

Response

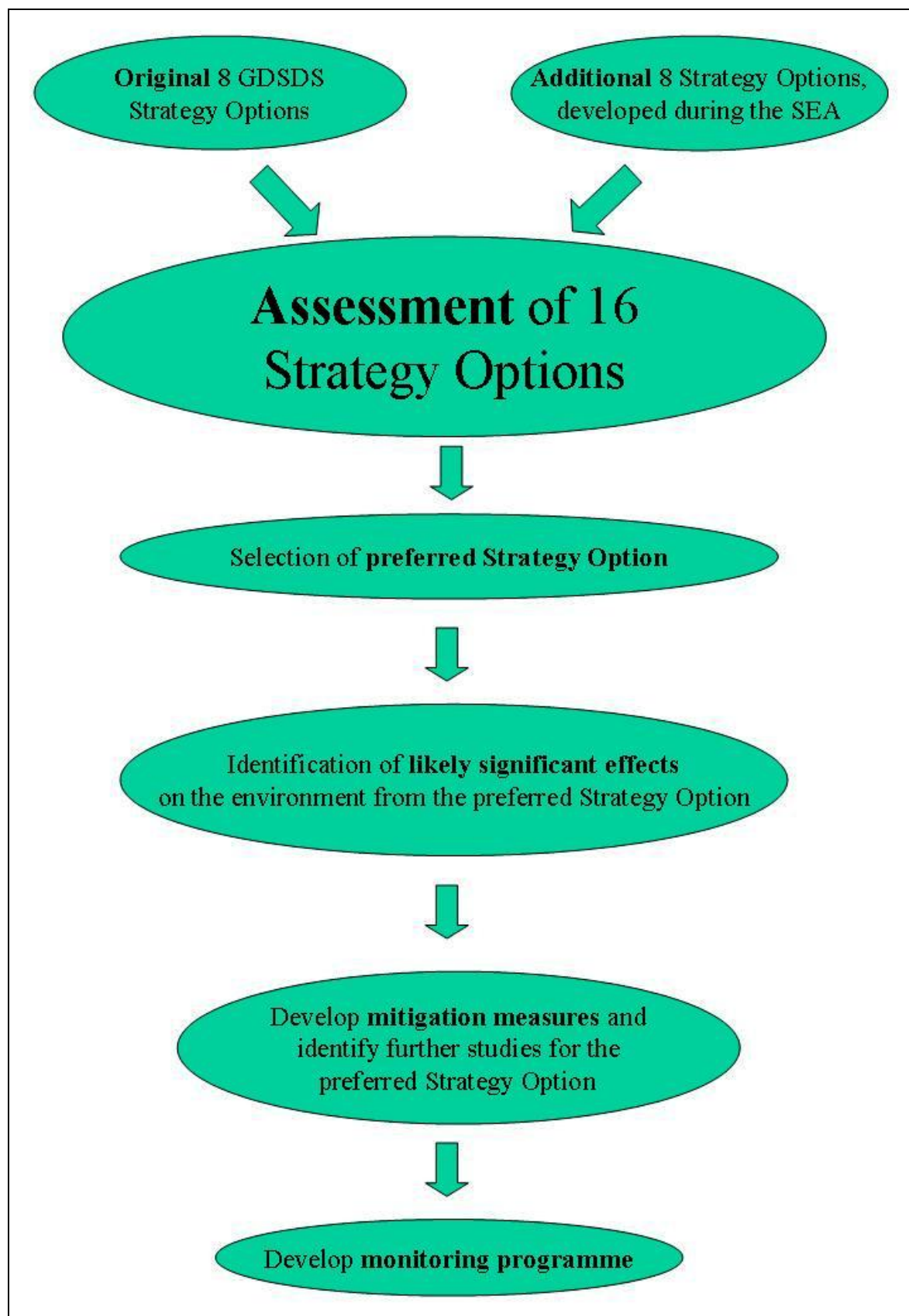
As shown in *Figure 3.1* below, the SEA assessment process will comprise an assessment of 16 no. strategy options: 8 from the original GDSDS and an additional 8 developed during the SEA process (including the 'Do-Nothing' Option). This assessment will use the Environmental Objectives in *Table 6.1 Proposed Environmental Objectives for the GDSDS SEA Environmental Report* of the draft SEA Scoping Report to highlight the positive and negative aspects associated with each strategic option. No weightings or quantified scoring will be used in this assessment. Rather, a qualitative assessment, using a five-point rating scheme, will be used. The rating scheme will be: major positive; minor positive; neutral; minor negative; and, major negative.

Following a consideration of the assessment results, a preferred strategy option will be chosen, on the basis of the relative performance against the Environmental Objectives.

When the preferred option is selected, the likely environmental effects on the environment of that specific option will then be presented. Based on these effects, mitigation measures (and, potentially, additional and more detailed studies) will be proposed.

Of the 16 options being assessed in the Environmental Report, 6 of these (the strategy options in the GDSDS) specifically mention Portrane as a site for a regional wastewater treatment facility. Thus, the potential environmental effects of a facility at Portrane will be assessed in the Environmental Report. It should be noted that the assessment of the 16 Strategy Options is a qualitative assessment, based on the Environmental Objectives in the Final SEA Scoping Report. Detailed, project-level environmental assessment will not be undertaken as it is too early in the overall development process for such detailed studies to be undertaken. The development process is illustrated in *Figure 3.1 Summary of SEA Assessment Process* below.

Figure 3.1 Summary of the SEA Assessment Process



It can be seen in *Figure 2.1 and Figure 3.1* above that the SEA of the GDSDS is the first step in the development process. Such a strategic assessment cannot consist of detailed, site-specific environmental studies (such as Phase 1 habitat assessments, landscape and visual assessments, noise modelling and assessments etc.) as the design information will not be available.

This design information is only prepared when a site has been specifically identified and when a preliminary design is available. Such information is only prepared at the planning stage of an individual project, and thus, these detailed studies will be undertaken at this stage in the development process.

However, it is important to note that the issues identified in the scoping consultation submissions will be considered in the SEA assessment and will be relevant considerations in the selection of the preferred strategy option. In addition, results and recommendations from the SEA process will influence the remaining stages in the development process. For example, the SEA process is also likely to recommend mitigation measures and additional studies to be prepared at later stages in the project process, particularly in relation to any individual projects required to be progressed as part of the implementation of the strategy.

To conclude, the SEA of the GDSDS will consider the strategic aspects of site-specific issues in relation to Portrane in the selection of the preferred strategy option.

3.2 OPPOSITION TO A LARGE/REGIONAL WASTEWATER TREATMENT PLANT AT PORTRANE

Issues Raised

Approximately 96% of submissions received voiced opposition to a large or regional wastewater treatment facility at Portrane. Many reasons were provided for this objection, ranging from the impact on Blue Flag beaches and Rogerstown Estuary, to impacts from mosquito populations (with specific reference being made to the Malahide mosquito) and traffic impacts. These specific impact issues are addressed in later parts of this section.

Response

The objections regarding any proposed wastewater facility at Portrane are noted. However, it is important to be aware that at this stage (scoping) in the SEA process, no strategy has been selected as the 'preferred option'. The 16 strategy options presented will be assessed using the Environmental Objectives in *Table 6.1* of the Scoping Report. The concerns raised however will be considered having regard for the strategic nature of such concerns.

3.3 IMPACT ON 'BLUE FLAG' BEACHES AND WATER QUALITY STATUS

Issues Raised

A large number of submissions (approximately 61%) raised concerns over the impacts of the implementation of the preferred strategy option on *Blue Flag* beaches, bathing waters, coastal waters, estuaries, etc.

Response

Page 21 of the *Draft Scoping Report* in the Chapter entitled *Environmental Objectives* identifies a range of objectives against which all of the strategic options must be considered including e.g.

Biodiversity, Flora and Fauna The Strategy should not significantly impact on European designated sites (SACs and SPAs), other Designated Sites (e.g. sensitive waters, bathing waters) or local sites (NHAs),

Water The Strategy should not affect result in significant adverse effects on groundwaters, estuarine waters, coastal waters and riverine water systems and should not impact on WFD objectives and measures. The Strategy must meet all aquatic-based legislation such as the Urban Waste Water Treatment Directive.

As such it should be noted that throughout the SEA process, a key objective against which the strategic options will be considered includes the risk of significant impacts on bathing water quality (a key factor for consideration in the Blue Flag award status), the impact on European Designated sites (such as the Rogerstown and Malahide Estuaries cSACs *Special Areas of Conservation* designated under the *Habitats Directive 92/43/EEC*, and Rogerstown SPA *Special Protection Area* designated under the *Birds Directive 79/409/EEC*), Ramsar Convention Wetlands (e.g. Rogerstown) and areas of designated floral/faunal value such as NHAs *Natural Heritage Areas* such as the Broadmeadow Estuary designated under the *Wildlife (Amendment Act), 2000* throughout the entire Greater Dublin Area.

In addition, another key objective specified detailed that the strategy options under consideration should be assessed against an objective of no significant adverse impact on groundwaters, estuarine waters, coastal waters, riverine waters. This objective is also extended to include compliance with the *Water Framework Directive 2000/60/EC* and that the preferred strategy should also comply with all aquatic based legislation such as *Urban Wastewater Treatment Directive (91/271/EEC)*, the *Shellfish Water Directive (79/923/EEC)* and the *Bathing Water Directive (2006/7/EC)* and all relevant aquatic based legislation.

3.4 CONSIDERATION OF INFLOW/INFILTRATION AND EXFILTRATION

Issues Raised

A large number of submissions received raised the subject matter of the significant quantity of surface water or groundwater entering the collection system (sewerage network) or leaks from same. The technical terms for these events are 'inflow', 'infiltration' and 'exfiltration' respectively. The term I/I/E is frequently utilised to describe these events collectively. The extent of inflow and infiltration in the collection system (i.e. sewerage network) is of direct relevance to the scope of the Greater Dublin Strategic Drainage Strategy, as one of the key objectives of any strategic option implemented post the completion of the SEA process will involve the minimisation of inflow and/or infiltration.

Fairshare commissioned UK Consultants Pick Everard to undertake a brief technical review of the Greater Dublin Strategic Drainage Study. Overall the Pick Everard report identified that it was '*....clear from our review of the GDSDS and associated documents...that a thorough and comprehensive study has been undertaken for the Greater Dublin catchments and we would support the vast majority of the principles which have been developed for the deficiencies of the existing sewerage networks, and the principles of the solution development which have been carried out*'. However, the Pick Everard report also identifies three principal reservations; a) infiltration, b) regulation and c) population. In addition Pick Everard also identifies an absence of information on technologies likely to be utilised in the future drainage infrastructure developed as the strategy is implemented. The Pick Everard report also makes reference to other environmental concerns which have been addressed under the generic responses included in this document.

Response

a) Infiltration

A 1996 CIRIA survey of UK catchments, *Control of Infiltration to Sewers* identified that in 1,646 catchments surveyed, 28% were reported to have greater than 25% infiltration. I/I/E is a worldwide problem with similar characteristics to the Dublin Region being identified globally. Most inflow, infiltration and exfiltration (i.e. leaks) occurs in relatively small quantities throughout the extent of the sewerage system and as such identifying and eliminating same is difficult, time consuming and costly. It is therefore considered to be far more cost effective to minimise its occurrence in the first place. The overall approach recommended in the GDSDS is to include measures to improve the quality of drainage construction and maintain its condition for as long as possible.

The GDSDS required the development of specific policies to assist in underpinning sustainable drainage management as part of the strategy for the region. One of the key policies developed as part of the GDSDS is **Regional Drainage Policy Volume 4 – Inflow, Infiltration and Exfiltration** (which is currently being implemented) by the Greater Dublin Area Local Authorities and is included in their current Development Plans. Specific recommendations concerning the management of Inflow, Infiltration and Exfiltration include;

New Water Industry Specification; covering materials, construction, testing and inspection to improve the standard of drainage assets (e.g. *Greater Dublin Area Code of Practice, Version 6.0*);

Strengthened Drainage Inspectorate to ensure the highest practical standard of drainage assets are to be achieved. Their remit would include inspection of both private and public drainage systems;

Inflow/Infiltration/Exfiltration Procedure to be adopted to reduce non-legitimate flows in the most cost-effective manner, including strengthening of the current mis-connections programme;

Drainage Operation and Maintenance Practices to include particular emphasis on minimising opportunities for non-legitimate flows to enter and leave the systems, such as through missing manhole covers and faulty flap valves;

Maintenance of Hydraulic Models and Databases to support the above procedures by providing geographically based asset and performance information for the identification of non-legitimate flows;

Register of Water Source Boreholes to enable the interface between water sources and drainage systems to be established and hence allow management of risks of cross- contamination

A policy on new development **Regional Drainage Policy Volume 2 – New Development Technical Document** is also being implemented which integrates best management practice (e.g. Sustainable Urban Drainage Systems) into drainage development and planning control.

It should also be noted that when considering references to a wastewater treatment plant of 850,000 p.e., the term p.e. represents *population equivalent*. Population equivalent is a measurement of organic biodegradable load and a population of 1 (i.e. 1 p.e.) means the organic biodegradable load having a five day biochemical oxygen demand (BOD) of 60 g of oxygen per day (*Urban Waste Water Treatment Regulations, 2001*). As a consequence, 850,000 p.e. refers to a pollutant load and not a hydraulic (i.e. water) load. Hydraulic considerations are clearly important in the design of pipes, pumping stations, etc. and these are taken into consideration at the design stage of any piece of drainage infrastructure. However it should be clearly noted that reducing inflow or infiltration will not result in any reduction in the *population equivalent* size of a waste water treatment plant. Even allowing for the elimination of all inflow/infiltration/exfiltration, there will still be a requirement to provide treatment capacity for 850,000 p.e., in whichever treatment strategy is recommended.

However, equally it should be noted that hydraulic allowances are considered for wastewater treatment plant and associated drainage infrastructure design. The flow allocation per population equivalent will be taken into consideration on a project by project basis taking into consideration the degree of inflow/infiltration/exfiltration that exists within the particular catchment, the sources and nature of wastewater being discharged into the collection system.

Detailed projects are underway as part of drainage infrastructure optimisation in the Greater Dublin Area such as in Ashbourne/Ratoath and Blanchardstown to address the issue of inflow/infiltration/exfiltration as part of an on-going programme of improvement.

In any event, at the design stage of any piece of infrastructure arising from the implementation of the GDSDS, all opportunities to minimise hydraulic load e.g. separation of foul and surface water flows, rehabilitation of existing drainage network assets will be thoroughly assessed and implemented. The Department of the Environment, Heritage and Local Government, who are the key funding authority for drainage infrastructure, require this approach to be adopted in advance of approval of specific projects.

b) Regulation

The Pick Everard report states that experience elsewhere concerning high population growth and demand predictions have not been considered in the GDSDS.

In relation to population and demand predictions, three design scenarios were considered 2002, 2011 and 2031. The first scenario was considered to be the 'baseline scenario'. The second scenario

corresponded to the planning horizon of the Regional Planning Guidelines which must be taken into account by Local Authorities when producing their Development Plans. The third scenario was a long term scenario considered appropriate for the planning of major strategic infrastructure which evolved from the consideration of regional policies, notably the National Spatial Strategy, the Regional Planning Guidelines and the Dublin Transportation Office (DTO) Transport Strategy. To ensure that the assumptions and predictions were reasonable a detailed 'Population and Land Use' exercise was undertaken as part of the Greater Dublin Strategic Drainage Study. This exercise involved liaison with planning personnel from all seven local authorities in the Greater Dublin Area, the Regional Planning Guidelines team, the Spatial Planning Unit of the Department of the Environment, Heritage and Local Government, the Dublin Transport Office and the Economic and Social Research Institute (ESRI). The reports arising from this exercise were reviewed by specialist planning consultants, Brady Shipman Martin.

In relation to metering of domestic consumption of water, the Government has not included this as a requirement of their current water services policy as implemented by the Department of the Environment, Heritage and Local Government. In relation to metering of non-domestic consumption in the Greater Dublin Area and nationally is due to be completed by the end of 2007.

'Trade' effluent discharges (i.e. discharges from industrial and commercial sources, etc.) to sewer are monitored and controlled under a licensing regime implemented by the local authorities both nationally and in the Greater Dublin Area under the *Water Pollution Acts, 1977 and 1990*.

c) Population

As described above, a comprehensive and detailed approach was taken to predicting population and demand projections in the Greater Dublin Area.

At the design stage of any piece of infrastructure arising from the implementation of the GDSDS, demand and population projection will be required to be robustly reassessed, in light of the most up to date information available. The Department of the Environment, Heritage and Local Government, who are the key funding authority for drainage infrastructure, require this approach to be adopted in advance of approval of specific projects.

In February 2007, Circular SP1/07 was released by the Department of Environment, Heritage and Local Government was released. This circular addresses revised national and regional population targets to 2020. It is apparent that the 2020 population levels in the Circular are in excess of the 2020 population estimates in the GDSDS and that the 2031 population estimates in the GDSDS will be reached sooner, possibly as early as 2020. This issue will be considered in the Environmental Report.

d) Technologies to be Employed

The Greater Dublin Strategic Drainage Strategy is a high level strategy assessing the drainage requirements of the Greater Dublin Area in 2011 and 2031. Any technologies to be utilised in the infrastructure developed as part of the strategy will be assessed during the planning and procurement stages of the process and it is premature to assess same at this stage in advance of preliminary engineering assessment and design of any particular element of the strategy being completed.

3.5 IMPACT ON ECOLOGICAL CONSIDERATIONS

Issues Raised

Approximately 60% of submissions raised concerns over ecological impacts arising from the proposed plan, e.g. European Designated sites (such as the Rogerstown and Malahide Estuaries cSACs *Special Areas of Conservation* designated under the *Habitats Directive 92/43/EEC*, and Rogerstown SPA *Special Protection Area* designated under the *Birds Directive 79/409/EEC*), Ramsar Convention Wetlands (e.g. Rogerstown) and areas of designated floral/faunal value such as NHAs *Natural Heritage Areas* such as the Broadmeadow Estuary designated under the *Wildlife (Amendment Act), 2000* throughout the entire Greater Dublin Area.

Response

Page 21 of the *Draft Scoping Report* in the Chapter entitled *Environmental Objectives* identifies a range of objectives against which all of the strategic options must be considered including e.g

Biodiversity, Flora and Fauna

The Strategy should not significantly impact on European designated sites (SACs and SPAs), other Designated Sites (e.g. sensitive waters, bathing waters) or local sites (NHAs),

As such it should be noted that throughout the SEA process, a key objective against which the strategic options will be considered includes the risk of significant impacts on ecology, i.e. the impact on European Designated sites (such as the Rogerstown and Malahide Estuaries cSACs *Special Areas of Conservation* designated under the *Habitats Directive 92/43/EEC*, and Rogerstown SPA *Special Protection Area* designated under the *Birds Directive 79/409/EEC*), Ramsar Convention Wetlands (e.g. Rogerstown) and areas of designated floral/faunal value such as NHAs *Natural Heritage Areas* such as the Broadmeadow Estuary designated under the *Wildlife (Amendment Act), 2000* throughout the entire Greater Dublin Area.

3.6 IMPACT ON HUMAN HEALTH FROM WASTEWATER TREATMENT FACILITIES

Issues Raised

Public health issues arose around the issue of flies and mosquitoes. The submissions said that human health will be at risk due to increased populations of flies and mosquitoes from the presence of a wastewater treatment facility. It should be noted that the majority of mosquito-related submissions arose in relation to a facility at Portrane. Specific reference was made to the presence of the 'Malahide Mosquito' and that such a facility in Portrane will result in large increases in local populations of the mosquito.

In a few submissions, specific reference was made to particular health impacts. It was noted that "two acute, inflammatory viral diseases (St Louis Encephalitis and West Nile Virus Encephalitis) are transmitted via the bite of infected mosquitoes". It was also noted that "encephalitis can be severe for infants, the elderly and those who are immuno-compromised".

A single submission raised the issue of Health Impact Assessment (HIA) and its role in the SEA process. It noted that "local health concerns do not figure prominently in the planning process". It notes that a HIA should "provide a systematic approach for assessing the potential impacts of proposed policies, plans and projects on the social, psychological and physical health of communities" and further notes that "public participation is considered a major component of the process".

A proposal to "examine the entomological population of the Donabate-Portrane peninsula and its adjacent estuaries as part of the Strategic Environmental Assessment of the G.D.S.D.S." was included with the above HIA-related submission. It notes that "an exhaustive study should be made of the entomological populations of the Donabate/Portrane peninsula, its estuaries and adjacent centres of population. Such a study should:

- "Evaluate the likely effects of various types and capacities of WWTP on the population of nuisance and biting insects;
- Assess the possible implications for public health, livestock and pest/vector control measures; and
- Formulate effective by-laws and control procedures to curtail and increase in the numbers of nuisance, and particularly biting, insects in the surrounding areas."

The proposal notes that there is a history of mosquito populations in the Malahide Estuary and that attempts have been made to raise this with Fingal County Council. Detailed information was then provided on the range of mosquito species residing in Malahide, potential survey strategies and recommendations, cases of West Nile virus in Ireland (which arose in 2004 and both cases were related to visits to the Algarve) and information relating to the transmission of vector-borne diseases via mosquitoes. The importance of screening and protecting any wastewater treatment facilities was emphasised and potential risks and issues associated with the use of pesticides in the local area were highlighted.

Response

Concerns related to potential increases in mosquito and other vector transmitter species are noted. However, the consideration of potential impacts on local mosquito populations is not possible at this strategic stage in the assessment process (please see *Figure 3.2* above). The presence of local mosquito issues would be required in the preparation of the preliminary design and EIS documentation, regardless of the location, of the wastewater treatment facilities(s).

If Portrane or any other site is selected as a site for such a treatment facility, regardless of scale, the scope of the EIS is likely (the scope of an EIS is only defined during the preparation of an EIS) to include specific consideration of the 'Malahide mosquito', and other potential disease vectors particular to the relevant site and the outcomes and recommendations of this specific aspect of the EIS would have to feature in the development of the preliminary design.

To conclude, if any wastewater treatment facility is located at Portrane or any other site(s) (and it should be pointed out that such a site-specific decision/identification is outside the scope of the GDSDS SEA), the presence of existing or potential mosquito populations will have to be considered and examined in any subsequent preliminary design and EIS. Effective control measures and good management practices do exist in relation to mosquitoes and other nuisance fly species and full and thorough consideration will have to be given to such design measures in any wastewater treatment facility.

In relation to HIA, the benefits of such studies are noted. The need for such a study(ies) will be considered in the Environmental Report.

3.7 IMPACT ON BEAUTY AND AMENITY VALUE OF PORTANE AREA

Issues Raised

Another key issue raised in a variety of formats in the submissions received (approximately 88%) raised concerns over the 'beauty of Portrane' and the high amenity value of the area. Specific examples of high amenity features included references to Portrane and Donabate beaches, golf courses (e.g. Donabate and Corballis Golf Clubs), cliff walks, Rogerstown Estuary Natural Heritage Area, the scenic views, sporting activities, etc.

Response

As referred to previously in this report the SEA of the GDSDS is the first step in the development process *Figure 2.1 Project Implementation Process* on page 4 of this report. Such a strategic assessment cannot undertake detailed, site-specific environmental studies (such as landscape and visual assessments, noise modelling and assessments etc.) as the design information will not be available.

This design information is only prepared when a footprint has been specifically identified and when a preliminary design is available. In the case of a large scale wastewater treatment plant (e.g. greater than 10,000 population equivalent) such information is only prepared as part of a Preliminary Report (*Figure 2.1 Project Implementation*) at which stage the environmental impact assessment process would also be completed.

Nevertheless, the SEA process will influence the remaining stages in the development process and will highlight these concerns for consideration throughout the planning and development process.

3.8 INADEQUATE PUBLIC PARTICIPATION AND CONSULTATION

Issues Raised

Many submissions stated that the SEA process has not considered the issues raised by particular community groups (Fairshare and Donabate Parish Council) during the public consultation for Fingal County Council's Assessment of Needs Report. These issues comprised site-specific concerns in relation to the recommended option in the GDSDS, which was an 850,000 PE wastewater treatment facility in Portrane. Some submissions also raised questions over the impartiality and independence of

the SEA Consultant Team.

A number of submissions states that the public consultation element of the SEA was inadequate and that the views of the local communities were being ignored.

Specific submissions expressed "grave reservations about the conduct of the SEA" and wished to emphasise that public participation, not consultation, was required.

Response

Consideration of Views Expressed in the Fingal County Council 'Assessment of Needs'

Public consultation and participation are at the heart of the GDSDS SEA. Upon appointment, the SEA Consultant Team received all the submissions received by Fingal County Council during the consultation on the Assessment of Needs study. A detailed review of all submissions was undertaken. Table 6.2 of the draft Scoping Report presents Environmental Objectives which will be used to assess the 16 strategy options with a view to selecting a preferred option. These Environmental Objectives have considered the issues raised during the Assessment of Needs consultation.

For example, many issues related to specific environmental designations around the Portrane area, such as the Blue Flag Breaches, Rogerstown Estuary, protected structures etc. The Biodiversity, flora and fauna objective will consider such designations. The objective is that *"the strategy should not significantly impact on European designated sites (SACs and SPAs), other Designated Sites (e.g. sensitive waters, bathing waters) or local sites (NHAs)"*.

Members of the public may have formed the view that, as the specific issues and designations at Portrane were not listed in the draft Scoping Report, these would not be assessed. To clarify this issue it is important to note that the purpose of the draft Scoping Report is to consult on the scope and level of detail in the Environmental Report; the draft Scoping Report was never intended to outline and describe the environmental baseline conditions - such information will be presented in the Environmental Report.

As noted in Section 3.1 above, it is important to be aware that the nature of the assessment in the SEA is different to those in a site-specific/project-level assessment. The GDSDS SEA will be focused on the higher, more strategic impacts, rather than local-scale, site-specific effects. Essentially the role of the assessment process in SEA is to select a drainage strategy which performs best against the environmental criteria. Arising from the recommended/preferred strategy will be (post-SEA) the identification of a range of appropriate sites, and then the subsequent selection of a preferred site(s), based on the requirements of the chosen strategy.

SEA Consultant Team impartiality

Mott MacDonald Pettit and ERM totally reject any assertions of non-impartiality and non-independence. Both consultancy firms are totally independent of Fingal County Council and view our reputation for quality, impartial, independent and transparent work as being central to the success of our companies.

Public Consultation and Participation in the SEA Process

Upon appointment, the SEA Consultant Team provided initial briefings to the Elected Representatives of Fingal County Council, the Environment Strategic Policy Committees of the Greater Dublin Area Local Authorities (with the exception of Dublin City Council which was completed internally); Fairshare; Donabate Parish Council; and Rush Community Council. This initial briefing summarised the SEA process, outlined consultation elements of the SEA process and fielded a variety of questions arising from same.

Both public and statutory consultation was undertaken on the draft SEA Scoping Report. The regulatory requirements of S.I. 435 of 2004 only require that scoping consultation be undertaken with the designated environmental authorities (Section 1.2.3 and 1.2.4). However, given the considerable public interest and nature of the issues raised during the consultation on Fingal County Council's Assessment

of Needs, it was decided to undertake a much wider consultation exercise with regards to the draft Scoping Report.

With regards to public participation, requesting submissions from the public in relation to the draft Scoping Report is directly including the public in the SEA process. All submissions received have been reviewed and the scope of the Environmental Report will be amended, if required (please refer to Section 4.0). Through making direct submissions, the public will be directly inputting into the scope of the Environmental Report.

An extensive public consultation exercise will be undertaken when the Environmental Report is made available. A digital version of the Environmental Report will be made available on Fingal County Council's website and hard copies will be available in the main offices in each of the seven Local Authorities. It is also likely that public briefings will be organised. Following consultation on the Environmental Report, another Submissions Report (similar in format and purpose to this Submissions Report) will be prepared, summarising the nature and range of issues raised; the SEA Consultant Team's response to the various issues; and amendments (if required) to be made to the Environmental Report, following consideration of the submissions received.

3.9 EQUITY, SUSTAINABILITY AND THE 'PROXIMITY PRINCIPLE'

Issues Raised

Many submissions commented that it was not sustainable, and contrary to the 'proximity principle' to collect sewage from County's Meath, Kildare and Wicklow and transport it to Portrane. These submissions also stated that "raw sewage becomes septic when left untreated for long periods".

Response

The 'proximity principle' is a solid waste management concept which was developed from a general set of waste management principles, including, self-sufficiency; producer responsibility and the polluter pays principle; principle of sustainable development; and the precautionary principle. Scannell (2006) *Environmental and Land-Use Law* notes (p. 690) notes that the proximity principle requires that an integrated network of solid waste disposal installations is required to enable waste to be disposed of in one of the nearest appropriate installations, by means of the most appropriate methods and technologies in order to ensure a high level of protection for the environment and public health. The basis for the proximity principle is the reduction of the potential environmental impacts and financial costs of moving solid wastes.

In relation to the treatment of wastewater arisings, the proximity principle can be useful, although as noted above it is primarily a solid waste management concept. The 16 no. strategy options to be assessed in the Environmental Report range from single facility strategies (options 2C, 3A, 3B, 3C and 4); smaller, regional scale-facility options (option 2A); multi-regional/catchment-based facilities (options 5A and 5B); community-based facilities (6A and 6B), localised facilities (7A and 7B) and the 'Do-Nothing' (8). The development of a wider range of strategy options (in comparison to those in the GDSDS Final Strategy Report) and the subsequent assessment of all 16 Strategy Options is a consideration of the proximity principle, but it is a consideration of the proximity principle along with a range of other environmental considerations.

In assessing each of the 16 Strategy Options, the strategy which emerges as the preferred option will be the option which performs best across all the Environmental Objectives but will also have regard for the general application of the proximity principle notwithstanding its specific focus on solid waste.

In relation to sewage going septic in pipelines and long distance pumping of wastewaters, this is a scenario which is catered for in drainage infrastructure and wastewater treatment plants all over the world. Specific design requirements can be integrated into the design process to prevent against septicity and odour impact.

3.10 ASSESSMENT OF THE AQUAFAC HYDRODYNAMIC MODEL

Issues Raised

In a small number of submissions (i.e. 4 no.), reference was made to the suitability of a marine outfall discharge for treated effluent from a regional wastewater treatment plant at Portrane. Specifically Fairshare commissioned a Water Quality Report by *Aqua-Fact International Services Limited* which was completed in March 2007.

Response

The *Aqua-Fact International Services Limited* report was completed based on the findings of an application of a hydrodynamic water quality modelling software package known as DIVAST. The assessment itself and the findings of the report will be taken into consideration in the Environmental Report to be completed as part of the SEA process. However, it is important to note that the assessment has assumed a number of factors, for example the concentration of faecal coliforms in the treated effluent and the location of the final discharge point. At this stage of the scoping process no specific decisions have been taken in relation to the preferred strategy from an environmental perspective, the specific location of any outfall point(s) arising from the construction of any new or expanded wastewater treatment plants developed as part of the final preferred strategy (to be determined on completion of the SEA process) nor have any specific discharge standards been selected.

As part of the implementation process of the adopted strategy, there will be a requirement to complete an outfall and site selection process [including site specific hydrodynamic modelling exercise(s)] as part of, or before any environmental impact assessment is completed for any wastewater treatment plant greater than 10,000 p.e. in size. During the environmental impact assessment process a comprehensive environmental legislation review will also have to be conducted to ensure that the design of the adopted strategy ensures that discharges to the environment from the implementation of same are compliant with all relevant European and national legislation.

A specified objective of the SEA process (as included in Table 6.2 on page 24 of the Draft Scoping Report) detailed that the strategy options should be assessed against an objective of no significant adverse impact on groundwaters, estuarine waters, coastal waters, and riverine waters. This objective is also extended to include compliance with the *Water Framework Directive 2000/60/EC* and that the preferred strategy should also comply with all aquatic based legislation such as *Urban Wastewater Treatment Directive (91/271/EEC)*, the *Shellfish Water Directive (79/923/EEC)* and the *Bathing Water Directive (2006/7/EC)* and all relevant aquatic based legislation.

3.11 CONTAMINATION OF GROUNDWATER/DRINKING WATER

Issues Raised

A number of submissions (approximately 5%) raised concerns over leakages from the development of drainage and waste water treatment infrastructure and subsequent contamination of groundwater and/or drinking water.

Response

These concerns are noted as one of the key objectives of any strategic option implemented post the completion of the SEA process will involve the minimisation of same wherever possible.

As described above in relation to the subject matter of inflow, infiltration and exfiltration (i.e. leakages) a number of policies have been adopted by the Local Authorities of the Greater Dublin Area including, a policy on new development **Regional Drainage Policy Volume 2 – New Development Technical Document** and inflow, inflow and exfiltration, **Regional Drainage Policy Volume 4 – Inflow, Infiltration and Exfiltration** in addition to the **Greater Dublin Area Code of Practice, Version 6.0**

The function of the above policies is to ensure that the quality of drainage infrastructure constructed in the Greater Dublin Area is maximised vis a vis environmental and human health protection. In addition all significant drainage and infrastructure projects are required to be technically reviewed by the

Department of the Environment, Heritage and Local Government in advance of funding being provided. Approval is also required under the *Planning and Development Acts, 2000* and associated regulations as amended, from An Bord Pleanála for all wastewater treatment plants with a population equivalent of greater than 10,000 or other infrastructure which is considered likely to have significant effects on the environment.

Page 21 of the *Draft Scoping Report* in the Chapter entitled *Environmental Objectives* identifies a range of objectives against which all of the strategic options must be considered including, e.g

<i>Water</i>	The Strategy should not affect result in significant adverse effects on groundwaters, estuarine waters, coastal waters and riverine water systems and should not impact on WFD objectives and measures. The Strategy must meet all aquatic-based legislation such as the Urban Waste Water Treatment Directive.
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Throughout the SEA process a key objective specified is that the strategy options under consideration should be assessed against an objective of no significant adverse impact on groundwaters, estuarine waters, coastal waters, riverine waters. This would also include compliance with the *Groundwater Directive 80/68/EEC*.

3.12 DEVALUATION OF PROPERTIES AND BUSINESSES

Issues Raised

Some submissions noted that the proposed facility in Portrane would have negative impacts on local residential and commercial property prices. Impact on existing business, especially the tourist and recreational businesses in the Portrane area, was also raised.

Response

Any facility which will be required as a result of the implementation of the chosen strategy will have to be designed and operated with attention to, and compliance with, existing regulatory and licensing requirements, such as the Urban Waste Water Treatment Regulations 2001 - 2005 (S.I. 254 of 2001, as amended); Bathing Water Regulations (S.I. 155 of 1992; note that a new EU Bathing Waters Directive came into force in March 2006); and *European Communities (Odour and Noise)(Waste Water Treatment) Regulations, 2005 (S.I. No. 787 of 2005)* and all other relevant legislation.

Planning approval for a wastewater treatment facility which has theoretical significant negative impacts identified in the accompanying environmental impact statement will require mitigation measures, such as odour control technology and management, operational and monitoring protocols for the operation of the facility. A planning application for any facility (regardless of its location) will be required to demonstrate that on implementation of such mitigation measures, the proposed development will not have any negative significant residual impacts on the local environment or sensitive receptors (e.g. neighbouring residences).

In the absence of a preliminary design (which would be prepared later in the process) any impact on property prices cannot be completed at this stage. However when an environmental impact statement is being prepared distance to the properties; neighbouring land uses; visibility of the facility (natural or artificial screening etc.); design of the facility (structures finishing, landscaping etc.); and predicted residual impacts in the environmental impact statement can be utilised to determine influences on same.

3.13 ODOUR IMPACT

Issues Raised

Approximately 18% of the submissions received made specific reference to concerns over odours arising from the proposed development of a large scale regional wastewater treatment plant at Portrane. Although not specifically referred to in the balance of the submissions it is still acknowledged that odour impact concerns are a significant public issue.

Response

As was identified in Table 6.2 on page 24 of the Draft Scoping Report, the SEA has identified that the adopted strategy must not result in non-compliance with the *European Communities (Odour and Noise)(Waste Water Treatment) Regulations, 2005 (S.I. No. 787 of 2005)*. These regulations require that wastewater treatment plants be designed, operated and maintained in a manner which does not cause an odour nuisance. There is also an annual reporting requirement to the Environmental Protection Agency in relation to same.

As part of the implementation process of the adopted strategy and as part of the environmental impact assessment for any wastewater treatment plant, there will be a requirement to accurately predict and control the odour impact arising from the construction, commissioning and operation of same. Where the environmental impact assessment predictions identify a significant likelihood of odour impact, design alterations and mitigation will have to be developed to ensure that such impacts are mitigated.

3.14 INCORRECT DESIGN CONCEPT

Issues Raised

In over 90% of the submissions received, it was either directly written or inferred that there was opposition to a 'regional' or 'monster' wastewater treatment plant at Portrane. In addition, approximately 27% of the submissions received identified that the strategy concept was flawed.

Response

As was identified in **Section 4 – Preliminary List of Options** on page 11 of the draft Scoping Report three original strategies were considered (following detailed modelling and technical assessments) as part of the GDSDS. Within these three strategies, eight options were considered, of which 6 specified a regional wastewater treatment plant at Portrane. As part of the SEA process it was decided to expand the strategies (an additional three in number excluding the 'do-nothing/minimum' strategy) within which 5 additional options are presented. None of the additional options included have specified a key component of same to be a large wastewater treatment plant at Portrane or any other specific location as it is considered that this would be premature in advance of a full site selection process. The Environmental Report of the SEA will not be making any recommendations for the specific location of any infrastructure to be developed as part of the implementation of the preferred strategy. The Environmental Report will identify the preferred strategy(ies) from a strategic environmental assessment perspective and will specify mitigation and monitoring requirements to ensure that the implementation of the preferred strategy does not result in significant environmental impact.

3.15 TRAFFIC CONSIDERATIONS

Issues Raised

Approximately 8% of submissions raised the issue of the inadequate road network around Portrane and its inability to cope with the "large volumes of traffic that the plant will cause". Other submissions estimated that a large facility at Portrane would generate in excess of 40 truck-loads of sludge per day.

Response

Sludge removal is required at all wastewater treatment plants. Sludge is a by-product of the wastewater treatment process and must be removed for appropriate disposal or recovery. Typically the sludge is removed by trucks.

The impact of sludge removal is based on a number of factors such as the specific location of the wastewater treatment facility; entrance and exit locations; the nature of the road network; access to the regional and national road network; number of truck movements; the proximity to residential receptors to the likely haulage routes used by the sludge trucks; the timings of the truck movements and the final destination of same.

In the absence of such specific design detail, it is not possible to estimate the nature of extent of traffic impact implications for any drainage infrastructure developed as part of the strategy. However, traffic impact (construction and operational traffic) will be a key consideration in the assessment of any planning application (both during the construction and operational phases). It must be noted that any

planning application will have to demonstrate that its predicted traffic volume can be adequately serviced by the local road network. Design standards and guidelines (e.g. the Design Manual for Roads and Bridges etc.) must be met and this assessment must be undertaken as part of the planning process for any proposed infrastructure arising from the final strategy.

3.16 SLUDGE CONSIDERATIONS

Issues Raised

The disposal and storage of sludge was raised in a small number of submissions. Some submissions quoted scientific and engineering papers (Renner, 2000; Pocar *et al*, 2003; Hamilton, 2007) which addressed some of the potential human and environmental health impacts from the disposal of sludge via spreading on agricultural lands.

Submissions are stated that the impacts of sludge are not being considered in the SEA process and this exclusion/omission is a "major omission".

Response

Sludge is a by-product of any wastewater treatment process (including the most basic, e.g. a septic tank). The disposal of sludge in Ireland is primarily land spreading or via landfill. The spreading of sludge on lands (primarily agricultural) is regulated by *Waste Management (Use of Sewage Sludge in Agriculture) (Amendment) Regulations 2002 (S.I. No. 267 of 2001)*. These Regulations amend the *Waste Management (Use of Sewage Sludge in Agriculture) Regulations, 1998 (S.I. No. 148 of 1998)* by replacing the two tonne per hectare per year limit on the amount of dry matter to be added to soil, with limits based on absolute quantities of specified heavy metals which may be introduced into soil per hectare per year, subject to the carrying out of nutrient management plans. The new Regulations also require that sludge is used in accordance with a nutrient management plan and provide for the inclusion of additional technical parameters to be entered in the sludge register provided for in the 1998 Regulations.

All of the strategy options being considered in the SEA Environmental Report will generate sludge. All such arisings have to be disposed of in full accordance with the above sludge disposal regulations, which are based on EU-level legislation (Directive 86/278/EC).

3.17 OTHER CONSIDERATIONS

A wide range of additional issues were raised which were difficult to group under a particular typology and as such there are discussed hereunder.

Issue Raised - 1 Support for Specific Strategic Options

As was identified previously in this report in Section 3.2 a large number of submissions were received detailing an objection to a large scale wastewater treatment plant at Portane. In addition a number of submissions supported the development of large scale regional wastewater treatment plants, e.g. a large scale regional treatment plant in another location, three or six large scale regional treatment plants or multiple outfall scenarios. Other submissions received stated a preference for some of the strategic options being considered as part of the SEA process.

Response

Whilst the feedback from the submissions has been assessed and formally recorded it should be noted that the function of the exercise was to obtain feedback on the environmental assessment process itself and not to establish preferences or otherwise for any of the options contained within same. Notwithstanding the above, based on the submissions received, it is proposed to assess an *Intermediate Strategy* with wastewater treatment plants being provided with a design capacity for same being assessed on the merit of local needs with discharges to appropriate receiving waters.

Issue Raised - 2 Objection to Flexibility' and 'Deliverability and Planning Risk' Objective

Certain submissions received suggested that the '*Flexibility*' and '*Deliverability and Planning Risk*' objective be removed as an assessment criterion from the SEA process.

Response

Wastewater treatment and drainage infrastructure is a necessary requirement for modern day societal health and safety and environmental reasons. Wastewater if inadequately treated and managed, poses a significant risk to the environment and can contain numerous pathogenic or disease-causing microorganisms. Adequate wastewater collection and treatment is mandated by numerous national and European legislative instruments. The preparation of the Greater Dublin Strategic Drainage Strategy was necessary as the economic success since the 1990s has resulted in the foul and stormwater drainage infrastructure not keeping up with the demands of on-going population growth and expansion of the Greater Dublin Area.

As a consequence due to the scale and scope of works required to meet the demands of the region projected to the year 2031 it is essential that the correct planning and infrastructure roll-out is commenced as soon as possible in an urgent, coherent and collaborative manner. It is important that the '*flexibility*' of the strategic options are considered. The plan, being strategic in nature, is proposed to ensure that the infrastructure developed will readily accommodate future growth and expansion of the drainage and wastewater treatment network in the region. This is not only to meet the requirements of this generation but as a platform for the needs of the future population. In addition each strategic option must be considered in terms of its ability to meet the medium term needs of the region and its ability to be implemented within the time frame required.

Issue Raised - 3 Accuracy of the GDSDS population estimates

A number of submissions received questioned the accuracy of the population projections contained within the Greater Dublin Strategic Drainage Study.

Response

In relation to population and demand predictions, three design scenarios were considered 2002, 2011 and 2031. The first scenario was considered to be the 'baseline scenario'. The second scenario corresponded to the planning horizon of the Regional Planning Guidelines which must be taken into account by the Local Authorities when producing their Development Plans. The third scenario was a long term scenario considered appropriate for the planning of major strategic infrastructure which evolved from the consideration of regional policies, notably the National Spatial Strategy, the Strategic Planning Guidelines and the Dublin Transportation Office (DTO) Transport Strategy. To ensure that the assumptions and predictions were reasonable a detailed 'Population and Land Use' exercise was undertaken as part of the Greater Dublin Strategic Drainage Study. This exercise involved liaison with planning personnel from all seven local authorities in the Greater Dublin Area, the Regional Planning Guidelines team, the Spatial Planning Unit of the Department of the Environment, Heritage and Local Government, the Dublin Transport Office and the Economic and Social Research Institute (ESRI). The reports arising from this exercise were reviewed by specialist planning consultants, Brady Shipman Martin.

As noted above in Section 3.4, Circular SP1/07 (released by the Department of Environment, Heritage and Local Government in February 2007) addresses revised national and regional population targets to 2020. It is apparent that the 2020 population levels in the Circular are in excess of the 2020 population estimates in the GDSDS and that the 2031 population estimates in the GDSDS will be reached sooner, possible as early as 2020. This issue will be considered in the Environmental Report.

At the design stage of any piece of infrastructure arising from the implementation of the GDSDS, demand and population projection will be required to be robustly reassessed. The Department of the Environment, Heritage and Local Government, who are the key funding authority for drainage infrastructure, require this approach to be adopted in advance of approval of specific projects.

Issue Raised- 4 Consideration of Climate Change

Certain submissions queried as to whether 'climate change' has been considered in the GDSDS.

Response

A specific policy on climate change management was developed as part of the GDSDS, **Regional Drainage Policy Volume 5 – Climate Change Technical Document**.

This policy document specifies particular recommendations for drainage criteria in the Dublin region, including, e.g.

- Technical design considerations for predictions in rising sea level, alteration in rainfall patterns and flooding frequency;
- Reduction in river base flows;
- Increase in river flood flows;
- Evaluation of new drainage schemes against set criteria.

The above policy is being implemented by the Greater Dublin Area Local Authorities and is included in their current Development Plans.

It should also be noted that *Table 6.2* of the draft Scoping Report identifies that each strategic option under consideration will be assessed against an objective that it should '*minimise energy consumption, and this greenhouse gas production, which contributes to climate change*'.

Issue Raised- 5 **Consideration of Energy Efficiency and Greenhouse Gases**

Some submissions made reference to '*energy efficiency*' of the proposed strategic options and the related 'greenhouse gas emissions' released from the generation of the electricity requirements.

Response

As specified above in preceding response, *Table 6.2* of the draft Scoping Report identifies that each strategic option under consideration will be assessed against an objective that it should '*minimise energy consumption, and thus greenhouse gas production, which contributes to climate change*'.

It should be noted that as the options being considered are strategic in nature, no preliminary or even detailed design has been completed for the options under consideration at this stage. As a consequence it is not possible to quantify energy demand or to assess different technologies to be employed as part of the strategy implementation. Any technologies to be utilised in the infrastructure developed as part of the strategy will be assessed during the planning and procurement stages of the process and it is premature to assess same at this stage in advance of preliminary engineering assessment and design of any particular element of the strategy being completed.

However, equally it should be noted that the SEA Environmental Report will set the framework for environmental considerations during the planning, procurement and operational phases of the proposed development and as such recommendations made in same (e.g. energy efficient, resource recovery) will have to be taken into consideration during the lifetime of the strategy.

Issue Raised - 6 **Bias towards larger wastewater treatment plants**

Certain submissions inferred are stated that the assessment objectives and criteria were 'biased' towards larger plants or that they were in fact, incorrect.

Response

The SEA Environmental Report will be a clear document which sets out the justification and rationale for the assessment process and the conclusions derived from same. The draft SEA Environmental Report will be issued for public and statutory authority consideration during which a significant consultation programme will be delivered by the SEA Consultant team.

On completion of the public consultation process, the draft SEA Environmental Report will be amended where appropriate arising from consultation submissions received by both the public and statutory authorities prior to its final publication.

In this regard the assessment process will be transparent and subjected to significant scrutiny. To ensure that this is the case, it should be noted that a significant range of objectives have been proposed

as part of the environmental assessment process which include not only an engineering criterion, but also biodiversity, impacts on water quality, air quality, climatic factors, cultural heritage, etc. criteria all of which will have to be robustly assessed in the Environmental Report.

4 Statutory Scoping Consultation

4.1 GENERAL

As noted in Section 1.1 above, the three designated environmental authorities were sent a hard copy of the draft Scoping Report. Legal scoping consultation requirements only apply to these designated environmental authorities, and thus, their submission responses will be addressed separately to those from the public in *Section 3* of this Submissions Report. The SEA Consultant Team's response to issues raised by the environmental authorities follows each issue, if relevant.

4.2 ENVIRONMENTAL PROTECTION AGENCY (EPA)

A meeting was held with the EPA on 3rd May 2007. A set of meeting minutes can be found in Appendix 2 of this Report. In summary, the key actions were:

- SEA Consultant Team to provide additional detail on the strategic options in the Environmental Report;
- Climatic Factors Objective to be amended to include a reference to "maximising renewable energy sources, as appropriate";
- Reference to be made to the role and importance of the Water Framework Directive and the draft EU Floods directive in the environmental Report;
- Clarification detail to be added to the various Indicators and Targets/assessment criteria for each of the Environmental Objectives; and
- The EPA wish to participate in the preparation of the Environmental Report and encourage the SEA Consultant Team to have ongoing consultation with the EPA.

4.3 DEPARTMENT OF THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT (DEHLG)

Issue Raised

Regarding archaeological heritage, the DEHLG noted that "known archaeological sites and areas of archaeological potential must not be impacted and that this can be dealt with on a site specific basis as the Greater Dublin Strategic Drainage Study proceeds. This is satisfactory."

Response

The SEA Consultant Team notes and agrees with this submission.

Issue Raised

Under architectural heritage, the DEHLG agreed with the statement in Table 6.2, which notes that site specific architectural issues will be examined at the appropriate level of detail (i.e. planning process and the identification of alternative sites). Their response goes on to note that "the context of the GDSDS is set at a very high level in terms of project planning. Therefore it is not possible to predict at this stage of the project specific site issues, should they ever arise, in relation to significant effect on architectural heritage".

Response

The SEA Consultant Team notes and agrees with this submission.

Issue Raised

The DoEHLG does recommend that the reference to Protected Structures (in Table 6.2) be amended to include reference to architectural heritage.

Response

The SEA Consultant Team will amend Table 6.2 to reflect this submission.

Issue Raised

Under nature conservation, it was noted that National Parks and Wildlife Service (NPWS) have reviewed the draft Scoping Report and "have no comments to make at this stage".

Response

The SEA Consultant Team notes this submission.

4.4 DEPARTMENT OF COMMUNICATIONS, MARINE AND NATURAL RESOURCES (DCMNR)

Issue Raised

DCMNR noted that they "have no comments to make at this time" but they did append a note from the Eastern Regional Fisheries Board (ERFB), which provides a summary of various fisheries and fishing legislation. Key points to note are that the River Liffey and several of its tributaries are exceptional in the area in supporting Atlantic Salmon, Sea trout and Brown trout. The ERFB response further notes that "this highlights the sensitivity of local watercourses and the Liffey catchment in general".

Response

The SEA Consultant Team notes that the DCMNR have no comment to make at this time and notes the importance of the River Liffey and its catchment. The baseline section of the Environmental Report will summarise all environmental issues, including fisheries and fishing receptors.

Issue Raised

The ERFB recommends that consideration within the Environmental Baseline and the Environmental Objectives should be given to fisheries related issues such as water quality, surface water hydrology, fish spawning and nursery areas, biological diversity and amenity and recreational areas. The ERFB noted that the subject of fisheries and fisheries legislation was absent from the scoping document.

The ERFB also questioned the detail for the Water Environmental Objective, specifically under Targets and Assessment Criteria. The ERFB submissions stated that "all discharges to waterbodies must be assessed on an individual, case by case basis through thorough assimilative capacity and related investigations. A blanket assessment of 'neutral impact' may not be valid based on WFD risk assessment alone".

Response

The baseline section of the Environmental Report will consider all relevant-environmental baseline data, including fisheries and fisheries receptors. Existing data sources; as available from the ERFB, EPA, Eastern River Basin District project, National Parks and Wildlife Service, and the original GDSDS documents; will be consulted and relevant data obtained.

The Water Environmental *Objective* states that the "*strategy must comply with all aquatic-based legislation*", thus including fisheries legislation. However, it is acknowledged how the perception that fisheries and fisheries legislation was not included in the draft Scoping Report could arise.

The SEA Consultant Team welcomes the comments from the ERFB. We broadly agree with the view taken by the ERFB that using WFD risk assessment as the sole basis for the assessment of impacts may not be sufficient. However, under the Indicator column (Table 6.2) it is noted that "WFD waterbody risk assessments and existing water quality data will be used to assess the strategy options under this objective". Thus, assessment of the strategic impact will not be solely based on WFD data and risk assessments.

However, given the high/strategic level of the GDSDS SEA, it is not likely to be possible to undertake "assimilative capacity and related investigations" as the required level of detail (hydraulic flows, pollution loads, outfall location, modelling of outfall location etc.) will not be available. Such studies will have to be undertaken at the preliminary design and associated environmental impact assessment phases of the overall development process. Essentially, the SEA will select a preferred strategy option on the basis of the least potential environmental impact (i.e. directing any development/strategy towards areas of low environmental sensitivity and avoiding areas of acknowledged sensitivity).

5 Local Authority Scoping Consultation

5.1 GENERAL

As part of the consultation process, a number of submissions were received from Local Authorities within the Greater Dublin Area. The SEA Consultant Team's response to issues raised by the environmental authorities follows each issue (in italics).

5.2 DUBLIN CITY COUNCIL

Issue Raised

Dublin City Council's submission emphasises the importance that the Environmental Report acknowledges the potential significantly negative environmental impacts on the Greater Dublin Area if additional wastewater treatment capacity is not delivered by 2011.

Data from the Eastern River Basin District Project (project funded by the Department of the Environment, Heritage and Local Government to assist in the implementation of the requirements of the Water Framework Directive) is quoted, which states that approximately 80% of the rivers and streams in the Greater Dublin Area are polluted or at risk of pollution. Potential environmental impacts which may arise due to the non-provision of additional treatment capacity are:

- Failure to meet mandatory effluent standards at Ringsend;
- Failure to comply with the WFD;
- Loss of Blue Flags in the Dublin area; and
- Prosecution by the EPA and EU in relation to the above non-compliances.

Response

The SEA Consultant Team notes this submission.

Issue Raised

Dublin City Council's submission provided a perspective that the Council views the risks to groundwater and surface water as being very significant with regards to Scenarios 5A and 6A. The Council also queried the feasibility of strategy options 6A and 6B (community-scale wastewater treatment networks) due to the large number (850 +) of additional small-scale wastewater treatment facilities required.

The Council did note, however, that the possibility of a smaller number of medium to large scale plants through out the region should be examined.

The submissions concluded that unless additional wastewater treatment capacity is provided for, the only other alternative is a "complete embargo on new development in the Greater Dublin Area within the next 4 - 6 years".

Response

The SEA Consultant Team notes this submission.

5.3 SOUTH DUBLIN COUNTY COUNCIL

Issue Raised

South Dublin County Council provided a submission which made a series of observations on each of the strategy options as set out in the draft Scoping Report.

The Council agreed with the view taken in the GDSDS that strategy options 1A & B and 2A & B were not feasible. Specific objection to option 2B (which had a wastewater treatment plant at Grange Castle Business Park) was raised by South Dublin.

South Dublin County Council expressed a preference for option 2C, noting that *"the treatment plant [at Portrane] is located at the lowest point of the catchment, thereby allowing the majority of sewage to gravitate to it"*. The submission also noted that this strategy *"provides conveyance capacity via the*

orbital sewer for the long term needs of the Greater Dublin Area and the treated effluent discharges to the least sensitive receiving waters namely the Irish Sea".

The submission notes the various advantages of the options 3A, B and C, but also states that each of these has technical difficulties regarding their implementation.

The South Dublin County Council submission notes that the Council would be supportive of Option 4 *'if the treatment plant was located close to the coastline'*. However the submission identifies that if the treatment plant was located significantly inland that the Council would be opposed to this option.

South Dublin County Council submitted that it would be opposed to strategy option 5 on economic grounds; sludge disposal and treatment grounds; and environmental grounds (odour issues and likely inadequate discharge conditions). Specific opposition to 5B was expressed as the long treated effluent pipeline would exclude future sewerage connections from new developments. In addition, South Dublin acknowledged that 'do nothing scenario' was not a realistic option.

Response

The SEA Consultant Team notes this submission.

5.4 KILDARE COUNTY COUNCIL

Issue Raised

Kildare County Council identified that on page 15 of the draft Scoping Report, that Option 2C also caters for a contribution of 25,000 p.e. from Osberstown.

Response

The SEA Consultant Team notes this submission and will amend the Scoping Report.

6 Alterations To The Draft Scoping Report

6.1 GENERAL

As identified in the introduction to this document, this report has three main objectives:

1. Identify the issues which were raised in the submissions
This has been completed in Section 2 Submissions Overview
2. Provide a response to the issues raised;
This has been completed in Section 3 Submissions Response
3. Amend the SEA Scoping Report, if required or justified.
The proposed amendments are outlined hereunder.

6.2 ALTERATIONS

The significant alterations to the draft Scoping report are set out below. Minor amendments such as legislative references, expansion on abbreviations, etc. will be completed as a matter of course.

Change #1 – Additional Strategy Option

It is proposed to assess an eight Strategy Option which considers the wastewater treatment needs on a 'local' basis. This will be Strategy Option 7 (and will have two sub-options, 7A and 7B), with the 'Do-nothing' Option becoming Strategy Option 8.

Change #2 – Inclusions of Reference to Osberstown in Option 2C.

As was requested by Kildare County Council, page 15 of the draft Scoping Report will be amended to include reference to Option 2C and the associated contribution of 25,000 p.e. from Osberstown for that scenario as was envisaged in the GDSDS.

Change #3 – Clarification on Objectives and Assessment Criteria

It is proposed that additional detail and explanatory footnotes be applied to the Indicators and Targets/assessment criteria of the Environmental Objectives in Table 6.2 of the draft Scoping Report for clarification purposes.

Change #4 – Inclusion of Reference to Fisheries Based Legislation in Water Objective

The Water Environmental *Objective* states that the "*strategy must comply with all aquatic-based legislation*", thus including fisheries legislation. However, for clarification, it is proposed that this objective be rephrased to state that the strategy option must also meet all water and fisheries-based legislation, such as the Urban Waste Water Treatment Directive (91/271/EEC), Freshwater Fish Directive (78/659/EC), etc.

Change #5 – Amendment of Climatic Factors Environmental Objective

At the scoping meeting with the EPA in May '07 (Appendix 2), it was recommended that a slight amendment be made to the Climatic Factors Environmental Objective. The EPA requested that "the strategy option should also maximise renewable energy sources, as appropriate".

APPENDIX 1 – SUBMISSIONS MATRIX

Submissions on GDSDS Scoping Report

Surname	Submission Reference Number	No Site Environmental	Impact Assessment	Opposition to 'large scale'	WWT Portane	Blue Flag	Beach/Water	Inflow / Infiltration / Exfiltration	Ecology, e.g. Rogers town Estuary, etc.	Public Health Assessment	Beauty Amenity Value Portane / Donabate, etc.	Community Funding / Participation	Equity / Proximity Principle	No Assessment Hydrodynamic Model	Contamination of Drinking Water	Property/ Business Devaluation	Odour Impact	Design Concept + Management	Reliability	Traffic	Sludge Management	Other
Aylward	139	1			1	1	1	1			1		1					1		1		
Bagnall	1	1			1	1	1	1	1	1	1		1				1	1	1		1	
Balis	2	1			1	1	1	1	1	1	1											
Bates	182	1			1	1	1	1	1	1	1											
Bates	22	1			1	1	1	1	1		1		1									1
Beaverbrook Residents Assoc.	133	1			1	1	1	1	1	1	1							1				1
	89	1			1	1	1			1	1											1
	179				1					1			1									
	128				1								1									1
	151				1																	
Bousfield	90	1			1	1	1	1	1	1								1				
Branigan	187	1			1	1	1	1	1		1		1									
Brennan	91	1			1	1	1	1	1				1									
Burke	178	1			1	1	1	1	1	1	1											
Byrne	83	1			1	1	1	1	1	1	1							1				
Canavan	25	1			1	1	1	1	1	1	1	1	1					1				
Carey	148				1																	1
Coastwatch	170				1																	1
Comber (Claudine)	32	1			1	1	1	1	1	1	1		1									
Comber (Niall)	36	1			1	1	1	1	1	1	1		1									
Conti	163				1																	1
Costello	97	1			1				1		1											
Costigan	74	1			1	1	1		1	1								1				
Cox	150	1			1					1												
Crean	81				1	1	1	1	1	1	1	1						1				
Cremin	92	1				1	1				1											1
Daly	142	1			1	1	1	1			1		1					1				
Daly	60				1																	
Daly	9	1			1	1	1	1	1	1		1	1									
Daly	7	1			1	1	1	1	1	1		1	1									
Darroch	113				1			1			1										1	
DEHLG	185																					1
DEHLG 2	188																					1
DCMNR/ERFB	95																					1
Deering	143	1			1	1	1	1			1		1					1				
Deignin	98				1								1									
Delmar (Maureen & Paul)	44	1			1	1	1	1	1	1	1						1					
Dockrell/O'Donohoe	131	1			1					1			1									1
Donabate Golf Club	12				1						1		1				1	1				
Donabate Parish Council	132	1			1	1	1		1	1	1	1	1	1			1	1			1	1
Donovan	110				1								1									1
Donovan (Angela)	59				1				1		1		1									
Donovan (Henry)	56				1	1	1		1		1		1									
Doorley	121				1						1		1				1	1				
Doran (David and Ann)	186				1						1		1									
Dowling	3	1			1	1	1		1	1			1									1
Downey (Lorraine)	55	1			1	1	1	1	1	1	1		1									
Doyle	39	1			1	1	1	1	1	1	1		1									
Dublin City Council (c/o Twomey)	49																					1
Duke	80	1			1	1	1	1	1	1			1					1				

Submissions on GDSDS Scoping Report

Surname	Submission Reference Number	No Site	Impact Assessment	Opposition to 'large scale'	WWTp	Portrane	Blue Flag	Beach/Water Quality Impact	Inflow / Infiltration / Exfiltration	Ecology, e.g. Rogertown Estuary, etc.	Public Health Assessment	Beauty Amenity / Value Portrane / Donabate, etc.	Community Funding / Participation	Equity / Proximity Principle	No Assessment Hydrodynamic Model	Contamination of Drinking Water	Property/ Business Devaluation	Odour Impact	Design Concept + Management Reliability	Traffic	Sludge Management	Other
Duke (Deirdre)	69	1		1	1	1	1	1	1	1	1	1		1							1	
	125	1		1	1		1	1		1		1		1								
	109			1										1								
	85			1									1									
Dunne & Vasiliou	71			1			1	1		1	1	1		1				1	1			1
Durham	103	1		1						1				1								
Durham/Rogertown Res. Assoc.	102			1																		
	155	1		1			1	1	1	1	1			1					1			
	124			1							1	1										
	65			1							1							1				
Ennis	99	1		1			1	1	1	1	1		1	1	1				1			
Fairshare	62	1		1						1	1			1				1				1
	42	1		1			1	1	1	1	1	1		1								
	72			1			1	1			1	1										
	118			1							1											
Francis	114			1										1								
Gallagher	136	1		1			1	1			1											1
Gibney	135	1		1			1	1	1	1	1							1	1	1		1
Glynn	52						1	1		1	1			1								
Golden	47	1		1			1	1	1	1	1	1							1			
Gormley	164	1		1			1	1	1	1	1			1								
Greene	40	1		1			1	1	1	1	1	1		1								
Grogan-Baar	168	1		1			1	1	1		1	1							1			
Gun'ko	70			1			1	1		1	1	1				1	1	1				
Hanratty	94	1		1			1	1	1	1	1	1		1			1	1				
Harley	172	1		1			1	1	1	1	1	1		1								
Harris	41	1		1			1	1	1	1	1	1		1								
Harrold	43	1		1			1	1	1	1	1	1		1				1				
Healy	115	1		1			1	1	1	1	1								1			1
Healy/Corr/Kelly	5																		1			1
Henderson	126	1		1															1	1		
Hickey	53	1		1			1	1	1	1	1	1		1					1			
Honer	54	1		1			1	1	1	1	1	1		1								
Horton	147			1									1	1								
Hughes	11	1		1			1	1	1	1	1			1								1
Johnston	64	1		1			1	1	1	1	1	1		1				1				
Kenny	77	1		1			1	1	1	1	1	1		1				1	1	1		1
Keogh	138			1						1	1											
Kildare County Council	183																					1
	88	1		1			1	1		1	1	1		1								
	75	1		1			1	1	1	1	1	1		1								
	31	1		1			1	1	1	1	1	1		1								
Kinsella	21			1						1		1		1					1			
Kohler	161	1		1			1	1	1	1	1			1					1			
Lambe	116	1		1			1	1	1	1	1			1					1			
Lawler	86			1			1	1		1				1				1				1
Lawler-Byrne	144	1		1			1	1				1		1								
Lilly	134			1										1								1
Maguire/Doran	107			1			1			1				1								
Mahon	173	1		1			1	1		1												
Mahony	50	1		1			1	1	1	1	1	1		1								

Submissions on GDSDS Scoping Report

Surname	Submission Reference Number	No Site	Environmental Impact Assessment	Opposition to 'large scale' WWT	Portrane	Blue Flag	Beach/Water Quality Impact	Inflow / Infiltration / Exfiltration	Ecology, e.g. Rostown Estuary, etc.	Public Health Assessment	Beauty Amenity Value Portrane / Donabate, etc.	Community Funding / Participation	Equity / Proximity Principle	No Assessment Hydrodynamic Model	Contamination of Drinking Water	Property/ Business Devaluation	Odour Impact	Design Concept + Management Reliability	Traffic	Sludge Management	Other
O'Sullivan (Paula & Eoghan)	48	1		1	1	1	1	1	1	1			1						1		1
	28			1		1				1			1				1				
	159			1							1		1								
	108			1		1			1				1						1		1
Plunkett	175			1		1		1													
	130	1		1																	1
	67			1				1		1	1				1		1	1			
Poynton	120	1		1						1			1				1				
Priory and Priorywood Res. Assoc.	66	1		1		1		1	1	1	1		1								
	152	1		1		1		1		1	1		1				1	1			
	24	1		1		1		1	1	1	1		1					1			
Regazzoli	176	1		1		1															
Robinson	17	1		1		1											1				
Robinson	17	1		1		1			1	1	1		1				1		1		
Roche	165	1		1		1		1	1			1	1								
Rochecouste	105	1		1		1		1	1				1				1				
Ronan	68									1											
Rooney	8	1		1		1		1	1	1			1					1			
Rudden	93	1		1		1				1			1							1	1
Ryan	37	1				1		1	1	1										1	1
Savills	153			1					1		1						1				
Shanahan	33	1		1		1		1	1	1											
Somerton and Carr's Mill Res. Assoc.	122	1		1		1		1	1	1			1							1	
South Dublin County Council	184																				1
Spaganoletti	156	1		1						1	1										
Sparks	78			1		1		1	1	1	1				1						
Stafford	76	1		1		1		1	1	1			1								
The Burrow Res Assoc. (c/o A Lawler)	51	1		1		1		1	1		1		1				1	1			
Thompson/Lipponen	171			1		1					1		1				1				
Tully	34	1		1		1		1	1	1	1		1								
Webster	10	1		1		1			1	1							1	1			
Weston	100	1		1		1		1	1	1	1		1				1	1		1	1
White	15	1		1		1		1	1	1			1					1			
White (Aoife)	27	1		1		1		1	1	1	1		1								
White (vice-chair of Beaverbrook Res. Assoc.)	84	see 133																			
Woolhead	111			1																	
Wynne	167	1		1		1		1			1							1			
Percentages of Total Submissions		112	176	96	117	64	90	49	111	103	91	16	109	4	10	14	33	49	15	5	46
		61							60	56	49	9	59	2	5	8	18	27	8	3	25

APPENDIX 2 – EPA SCOPING MEETING MINUTES

Subject/Ref GDSDS - scoping meeting with the EPA

Venue ERM's Dublin offices

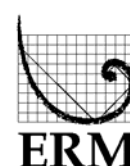
Date of Meeting 3rd May 2007

Present Tadgh O'Mahony (EPA);
Paul Kelly (MMP); and
Olan Howell (ERM).

Distribution All the above, plus Paul Smyth, Brendan Colgan ,
Peter O'Reilly (all Fingal CC) and Sean O'Riordain (ERM)

Date 12 June 2007

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Building
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ACTION

The meeting began with PK providing an overview of the history of the GDSDS project and the origins of the GDSDS SEA. PK also summarised the main options in the SEA Scoping Report.

TOM noted that there may be a need to consider preparing a separate 'plan/programme' (P/P) document in parallel with the Environmental Report, to ensure that any potential avenue for legal challenge is removed.

PK/OH to liaise with EPA re the GDSDS P/P document

TOM noted that a diagrammatic figure is recommended to clearly outline the role and function of SEA in the overall development process. Such a figure must illustrate the strategic nature of the SEA process and how the conclusions and recommendations from SEA will 'filter' down to a project/EIA-level of decision making. It is important that the scope and focus of SEA is clearly communicated to all parties to avoid confusion in relation to the SEA process. SEA is, essentially, one of the first stages in the overall development process. As such, detailed and site-specific issues (EIS/project-level studies and assessments) cannot be addressed in SEA. Rather, such issues are highlighted for more detailed consideration at lower levels of the decision making hierarchy.

PK/OH to include figure showing the role of SEA in the development process

TOM noted that greater detail on some of the strategy options is likely to be required. PK confirmed that such details will be included in the Environmental Report. TOM also noted the phasing of the chosen strategy was an important factor.

PK to elaborate on options in Environmental Report

TOM noted that climate change considerations were becoming more and more relevant in all aspects of infrastructure development and queried how this was being considered in the SEA. PK and OH replied that there was a specific policy on climate change in the GDSDS. TOM then noted that the Climatic Factors objective should be amended to include a reference to "maximising renewable energy sources, as appropriate".

OH to amend Climatic Factors objective

TOM stated that the Water Framework Directive (WFD) was an essential piece of aquatic-legislation and greater emphasis should be placed on it (and its overall

OH to expand on the role and

objectives) in the legislation section in the Environmental Report. The WFD should also be linked to existing groundwater protection schemes.

importance of the WFD in the Environmental Report

OH confirmed that the WDF would be a key baseline data source in the SEA and that the Eastern Region Characterisation Report was referenced in the draft Scoping Report. In addition, the WFD risk assessment ratings would form a key component in the assessment of likely significant effects on the environment.

TOM noted that the implications of the draft Flooding Directive and existing and predicted flooding data (where available) should be considered in the Environmental Report.

PK/OH to include section on flooding implications in the environmental Report

TOM noted that it was important to emphasise the ongoing nature of 'non-GDSDS' infrastructural works and upgrades which will take place regardless of the GDSDS recommendations.

OH to amend text

TOM noted that *Section 5.2.5* should mention future licensing and regulatory requirements (in relation to potential wastewater treatment plants).

TOM to email OH relevant information

TOM noted that the Environmental Objectives (*Section 6*) comprised environmental and engineering objectives and that consideration may need to be given to 'splitting-up' these objectives. Clear distinction should be made between plan (i.e. GDSDS) objectives and the Environmental Objectives. OH responded that it was preferable that all the strategy options were assessed against a single set of criteria (i.e. the environmental objectives presented in *Table 6.1*). However, the potential for confusion between the environmental and 'non-environmental' objectives was noted.

In any event, the so-called non-environmental criteria had explicit environmental considerations. For example, the Engineering (feasibility and reliability) objective has strong environmental links in that a strategy which did not perform well against this objective was also likely to result in environmental impacts through inadequate treatment of pollution loads. Regarding the Deliverability and Planning Risk objective, a strategy option which performs poorly against this objective is likely to result in environmental impacts through the delayed (or non) provision of appropriate infrastructure as inadequate or insufficient treatment capacity will be provided for the Greater Dublin Area.

TOM queried if all the Indicators proposed in *Table 6.2* could be monitored. OH responded that some of the indicators were not specifically monitor-able at this strategic level of assessment (i.e. SEA level). Given the strategic/high-level nature of the GDSDS SEA (i.e. at the beginning of the development process), many monitoring requirements will only arise when the chosen drainage strategy is being implemented (i.e. the operation of the strategy). Thus, TOM noted that it is important that SEA monitoring requirements are implemented through the development process, and amended (if required) to reflect the appropriate level of detail at each stage of the development process. For

OH to review Indicators and targets text/details

Meeting minutes

example, impact on any designated sites (SPAs, SACs etc.) could only be undertaken when operational and performance data was available - such data is not available at this early stage in the development process. OH noted that, given the strategic level of the SEA, the SEA Consultant Team would welcome any guidance from the EPA re the applicability of the indicators and monitoring requirements during the preparation of the Environmental Report.

Some of the indicators Regarding the Targets/assessment criteria (3rd column in *Table 6.2*) provide further detail on how the assessment of strategy options was to be undertaken.

TOM stated that the EPA sees the GDSDS SEA as being a high profile SEA and one that the EPA wishes to play a more active role in. The EPA foresee an ongoing consultation process with regards to the preparation of the Environmental Report and are willing to bring in their 'in-house' technical staff to assist the SEA process. TOM noted that the timescales for the GDSDS SEA should not be underestimated and that the current/indicative programme for the SEA may be slightly ambitious, given the likely complexity and scale of the SEA.

PK/OH to liaise with TOM re ongoing consultation requirements

In addition, it was suggest by TOM that a follow-up meeting with EPA (SEA Section and Public authority enforcement section) following completion of the Final SEA Scoping Report. This would form part of the on-going SEA scoping process.

OH agreed to draft up a set of minutes to summarise the meeting and TOM agreed to provide some additional written comments on the draft Scoping Report.

OH to draft minutes

