Wexford County Council

Fethard-on-Sea Main Drainage Scheme

Progress Report

February 2013

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Project Overview

Wexford County Council appointed WYG Ireland (formerly PH McCarthy Consulting Engineers) in 2006 to carry out Environmental Studies including Flow and Tidal Studies to determine the location of the proposed wastewater treatment works (WwTW) and outfall to serve the village of Fethard on Sea, Co. Wexford. The brief also included for the design and construction management of the village's drainage infrastructure and WwTW.

A Preliminary Report for the scheme had been prepared in November 1999, with a supplementary report issued in 2002. The Preliminary Report identified preferred sites for both the location of the WwTW and the outfall pipe for the discharge of treated effluent. However, at that time no assessment of the environmental impact of the proposed works was considered.

The project brief for the study to be carried out by WYG required hydrodynamic water quality modelling techniques be used in selecting an appropriate effluent outfall location, due to the sensitive nature of the receiving waters in Fethard Bay. Other key factors in the selection of appropriate locations for the WwTW site and the treated effluent discharge point included ecology, land-use, economics, archaeology, ground conditions, site layout, visual impact and planning considerations.

WYG developed a methodology to select the most appropriate location for the WwTW site and the treated effluent outfall pipe, based on technical, environmental and economic grounds. Cognisance was been taken of all relevant statutory requirements and best practice in this site selection process. The final Site Selection Report issued to Wexford County Council in May 2009 recommends a preferred site for the WwTW site and the discharge point for treated effluent to Fethard Bay. Details of all sites which were considered during the site selection process are included in the report.

1 Scope of the Works

The extent of the scheme can be summarised as follows:

1. The preparation of Supplementary Report, including environmental studies and a flow/tidal study to determine the location of the wastewater treatment plant and outfall to serve the village;

2. The preparation of a DoCMNR Foreshore Licence application, Part 8 Planning Application to advance the scheme and preparation of wayleave and land mapping;

3. The preparation of a Procurement Appraisal Report as part of the Wexford County Council staff consultation process and completion of a Procurement Appraisal Report;

4. The preparation of Water Services Pricing Policy Reports;

5. The preparation of contract and tender documents for collection and treatment systems to serve the village;

6. Construction Management Services;

7. Project Supervisor Design Stage.

Following their appointment WYG carried a review of existing data and further data collection requirements were identified. Specialist sub-consultancy services were procured and the following surveys and investigation works were completed:

1. Hydrographic Survey and Hydrodynamic Modelling Study;

2. Environmental Surveys and Studies
    i. Marine and Terrestrial Ecology
    ii. Landscape and Visual
    iii. Soil, Geology and Hydrogeology

3. Marine and Terrestrial Archaeology;

4. Site Investigations on the site of the proposed wastewater treatment works

5. Topographical Surveys.

2 Progress To-Date

2.1 Statutory Planning Process

Following a review with Wexford County Council of potential planning processes available, it was agreed to adopt the following planning route and liaise with the relevant Statutory Bodies to clarify their requirements in relations to their element of the Statutory Planning Process.

In line with current guidance on preparing a Foreshore Licences Application, WYG consulted with the Coastal Zone Management Division (CZMD) of the Department of Agriculture, Food and

Natural Resources (DAFNR) in relation to the scope of environmental studies required to accompany an application. WYG prepared a request for scoping which was forwarded to the Marine Licence Vetting Committee (MLVC) who suggested that an EIS was likely to be required due to the location of the outfall in a European site and close to a wild shellfish fishery. Consequently, the National Parks and Wildlife Service (NPWS) were asked if they required an EIS to be prepared. The NPWS identified that they required an Appropriate Assessment of the potential impact of the all elements of the development on European Sites in the vicinity.

Following discussions with Wexford County Council (WCC), WYG were instructed to investigate the feasibility of applying to An Bord Pleanála (ABP) for approval of the scheme under Section 43 of the Planning and Development (Strategic Infrastructure) Act 2006 amending section 226 of the 2000 Act. It was anticipated that by following this route a separate Foreshore Licence would not be required.

The Coastal Zone Management Division did not agree with the interpretation of the planning legislation that a Foreshore Licence was not required if a Section 43 process was followed. WYG corresponded with and took part in significant discussions with the CZMD regarding the matter. WYG also corresponded with ABP and sought the Board's advice on the matter.

WCC requested WYG to estimate the cost of preparing an EIR and Foreshore Licence and the cost of preparing an EIS. In order to estimate the cost of preparing the EIS WYG prepared a preliminary scoping document for the EIS.

In March 2008 WYG sent a request to ABP for a determination on whether an EIS was required for this sub-threshold development of a wastewater treatment plant and outfall. At the end of July 2008 ABP issued a determination to the effect that the preparation of an EIS for the development was not required.

Following the above consultation, WYG confirmed to WCC in letter dated 18th August 2008 that WYG considered the appropriate planning procedure to be as follows:

- Carry out an Appropriate Assessment in relation to the impact of the discharge pipe on the SAC into which it discharges;
- Carry out a screening assessment on the treatment works, pumping station and stormwater tank; and,
- Follow a Part 8 planning process in relation to the wastewater treatment works.
- Apply for a Foreshore Licence for the discharge pipe;

2.2 Liaison with Statutory Bodies

Department of Communications Marine and Natural Resources

WYG contacted the Foreshore Section of the Department in May 2008 in relation to the construction of the treated effluent outfall pipe. The Department subsequently advised WYG on the scope of the documentation that would be required to accompany an application for a foreshore licence.

The construction of the treated effluent outfall pipe is not a class of development that would require a mandatory EIA, however the type of environmental assessment required accompanying a Foreshore Application is at the discretion of the NPWS in relation to potential impacts on the designated conservation sites in the area. The NPWS specified the ecological studies they require to be undertaken to complete the "appropriate assessment" of potential impacts on these sites in accordance with the Habitats Directive/Regulations. This assessment should be presented in the format outlined in the ECs publication on *Assessment of Plans and Projects significantly effecting Natura 2000 sites - Methodological guidance on the provisions of Article 6(3)and (4) of the Habitats Directive 92/43/EEC* They stated that they do not require an EIS to be submitted to them.

The Moore Group were commissioned to carry out the Appropriate Assessment. The Appropriate Assessment was included in the final Site Selection Report.

National Parks & Wildlife Service

The National Parks & Wildlife Service (NPWS) of the (DoEHLG) were requested to contribute to the scoping of the EIS/EIR and to contribute to the site selection process. A written response was received on the 17th July 2007. The correspondence noted that Bannow Bay is an SPA with particular interest for Brent Geese and set out information that should be contained in the EIS/EIR. The information included: addressing the effect that volumes of water and its quality will have on habitats such as mudflats and estuaries and species; possible suitable mitigation to prevent significant disturbance to biological communities over time; and the expected levels of phosphorus and nitrogen likely to be discharged to the Bannow Bay SAC.

Subsequently the NPWS stated that they require the above ecological studies to be presented in the format outlined in the EU publication on *Assessment of Plans and Projects Significantly Effecting Natura 2000 Sites - Methodological Guidance on the Provisions of Article 6(3)and (4) of the Habitats Directive 92/43/*EEC They also stated that they require that a screening of the potential environmental effects of the treatment works on the SAC/SPA to be carried out and if potential detrimental impacts are identified that an appropriate assessment of those impacts be carried out. The Appropriate Assessment Screening Report was sent to Wexford County Council for review on the 23rd November 2012.

Marine License Vetting Committee

The Marine License Vetting Committee (MLVC) within the Department of Communications Marine and Natural Resources (DoCMNR) were asked to determine as to whether an EIS would be required. In a response letter dated 31st July 2007 the MLVC raised concerns about the wild shellfish fisheries within the area of the proposed outfalls Nos. 1 - 4 and therefore there may be a necessity to insist on UV disinfection or similar additional treatment of the effluent prior to discharge. The MLVC stated however that it may be premature to comment further on which option should be preferred as this may be dictated by least impact to SPA/SACs, shellfish production areas and on the outcome of the dispersion/modelling studies.

The MLVC commented that both Site D and outfall 5 are not appropriate as they would result in discharge into a small inlet which is an SAC. They also stated that it would seem more appropriate to select site options that would include the actual outfall at the same site location. . The final outfall location which has been selected is Site B, with a preferred outfall location of Outfall 8.

DoEHLG Development Applications Unit

A report on the terrestrial archaeology prepared by Mary Henry Archaeological Services Ltd was submitted to The Development Applications Unit of the DoEHLG for review and in response in a letter dated the 12th September 2007 they stated, that based both on their evaluation of the report, they recommended measures identical to those recommended in the report. They stated their reason for the recommendations was to "*to ensure the continued preservation (either in situ or by record) of places, caves, sites, features or other objects of archaeological interest"*. The Terrestrial Archaeology Report was included in the Part 8 Environmental Report sent to Wexford County Council for review on 23rd November 2012.

2.3 Studies

Hydrographic Survey

Hydrographic Surveys Ltd were appointed to carry out the survey, which commenced on site on the 2nd April 2007 and was completed on the 9th May 2007. The final report was issued on the 30th July 2007. A copy of the final report was issued to Wexford County Council. The survey data formed the basis for the construction and calibration of the hydrodynamic model.

Hydrodynamic Modelling Study

The hydrodynamic model has been calibrated and validated and simulations run of solute transport for the five proposed outfall locations. Modelling has been based on the ultimate design loading to the proposed WwTW, with secondary treatment.

The model results indicate proposed outfall lengths. The depth averaged and dispersion model has been run to estimates effluent solute concentrations throughout the spring-neap tidal cycle. There is negligible impact predicted for shellfishery activities in the middle of Bannow Bay. The results have not indicated that any outfall can be discounted from the selection process. The original modelling study assessed a total of six outfall locations. A draft report on the modelling was issued to Wexford County Council on the 4th October 2007, and a final report was issued on the 6th February 2008 on that basis. Following discussions with Wexford County Council a further two outfall locations were developed and assessed by means of the hydrodynamic model. These outfalls were both located offshore from the finally selected site for the WwTW. Outfall 8 was selected as the preferred outfall location. A final amended report on the modelling was included in the Site Selection Report issued to Wexford County Council on the 28th May 2009.

Marine and Terrestrial Ecology

Roger Goodwillie & Associates was appointed to carry out terrestrial ecology element of the study. The draft report on the terrestrial ecology *"Fethard-on-Sea, Co Wexford Main Drainage Scheme - Ecological Assessment of Scheme Options"* was received on the 21st September 2007. The report was derived from fieldwork carried out in August and September 2007. The four identified WwTW sites and the five outfall locations were assessed separately.

Site A and Site B are very similar with both consisting of arable fields, with the hedges being the features of most ecological interest in both sites. Site C is an extensive site of abandoned tillage which is now covered by mixed grasses, weed species and seedling trees, especially alder, spreading from adjoining hedges. A brackish pond occurs at the northern end of Site C and the vegetation is much more varied than in Sites A and B. Site D itself is in a tillage field but the access road passes through a section of wet marsh with a good diversity of plants and this area is included in the Bannow Bay SAC. Site B offers the fewest constraints from an ecological point of view followed by C, A and D. The conclusion is that Site B with Outfall 4 (or 1) would be the preferred option from this survey as its access, construction and pipework would result in the lowest level of ecological impact. Site D would cause the largest impact because of the planned road access to it which involves a designated area as well as filling. The order of choice of sites with potential outfalls is: Site B and outfall 4; Site C and outfall 1; Site A and outfall 4; and Site D and outfall 1.The report was finalised in November 2007 and a copy of the final report was issued to Wexford County Council on 20th November 2007.

Following the issuing of an invitation to three consultants to tender for the marine and freshwater ecological assessment of the final outfall location, Moore Group were selected as the preferred marine ecological consultant. The assessment was carried out between April to May 2008 in order to record the maximum biological data. The report on the assessment was include with the Part 8 Planning Documentation sent to Wexford County Council on 23rd November 2012…….

Landscape and Visual

Murray & Associates were selected as the landscape consultant and their draft report "*Wastewater Treatment Plant Fethard on Sea, Co. Wexford - Site Selection - Landscape & Visual Impact Assessment*" was submitted on the 10th September 2007. The consultants assessed the four proposed WwTW sites taking into consideration all significant landscape and visual impacts, as defined in the report.

The report concluded that the proposed development in Sites A, B and C would result in a significant and negative landscape and visual impact mainly due to the close proximity of the sites to the coastline and the natural, unspoilt character of the landscape. The impact of the proposed development at these sites can be mitigated against by the planting of suitable screening vegetation. The proposed development in Site D would result in a slight to moderate visual impact immediately after development is complete. There are strong existing hedgerows surrounding Site D that will provide significant screening and further screen planting can be established. The access road to Site D will be an additional impact but this will be slight as this land is currently in a disturbed state with little landscape value. It is also recommended that for all sites the scale and the height of the development be kept to a minimum (i.e. single story).

Discussions about the landscape and visual impact of the proposed development were held between WYG and the Water Services Section of Wexford County Council and the Planning Department of Wexford County Council. The revised terrestrial landscape assessment report was finalised on 7th November 2007 and following comments from WYG arising from these discussions a copy of the final report was issued to Wexford County Council on 20th November 2007.

Terrestrial and Marine Ecology

Mary Henry Archaeological Services Ltd. were appointed as consultants to carry out the terrestrial and underwater archaeological assessment for the site selection report.

The report on the terrestrial ecology *"An Archaeological Impact Assessment of the Proposed Main Drainage Scheme, Fethard-on-Sea, Co. Wexford"* was received in early August 2007. Feedback from the Archaeologists was received on some queries. The report included mitigation measures for the scheme. The Development Applications Unit of the DEHLG received the report and the department recommended, in a letter of the 12th September 2007, the mitigation measures as proposed by Mary Henry Archaeological Services Ltd.

Due to weather conditions the underwater assessment was not carried out until August 2007. The assessment considered the routes of five outfall routes, with a desktop study, dive survey and metal detection survey. The report identified that all outfall locations are of low archaeological potential and no mitigation measures were identified. The report "*Archaeological Assessment of Outfall Pipelines at Fethard-on-Sea, Co. Wexford"* was been sent to the DEHLG for approval.

Copies of the final report were included with the Part 8 Planning Documentation sent to Wexford County Council on 23rd November 2012.

Site Investigations

Tender Documents for the preliminary Site Investigations were issued to five suitable contractors, with four completed tenders received on the 15th January 2008. The tender report, dated 17th January 2008, recommended that Whiteford Geoservices Ltd. be appointed for the works, as the lowest tenderer.

Following discussions with Wexford County Council on the 21st February 2008, the scope of the works was altered. The tender amount for the revised works was €45,890.22, including €6,083.22 VAT. Fieldwork was carried from the 9th June to the 1st August 2008, with a final report on same issued on the 8th December 2009. The final cost of the site investigations was €41,368.32 inclusive of €5,291.82 VAT.

The site investigations comprised trial pits, percussive boreholes, rotary boreholes in-site testing and laboratory testing. The works were carried out at the pumping station site in the village and the short-listed WwTW sites A & B. The purpose of the preliminary site investigations was to ascertain if there was any appreciable difference in ground conditions between the two sites. Further site investigations will be required for detailed design of proposed WwTW site and sewer and outfall routes.

Topographical Surveys

The topographical survey for the scheme was completed by FCG Surveys Ltd. The survey included sewer routes and access routes, the proposed WwTW sites, the foreshore and the site of the existing septic tank. FCG Surveys commenced on site on the 1st October 2007, with final reporting completed in November 2007.

2.4 Outstanding Issues

Part VIII Planning Procedure

Documentation for the Part VIII Planning Procedure was sent to Wexford County Council on 23rd November 2012 for review. Comments were received on the 8th and the 11th February. Some amended documents have been returned to the Council, any outstanding amendments will be completed in the next few days.

Site Investigation for Sea Outfall

Draft contract documents for the sea outfall investigation were sent to Wexford County Council on 30th January 2013 for review. Comments were received on 8th February and some amended documents have been returned to the Council, any outstanding amendments will be completed in the next few days.

3 Programme

A project programme for the project is included with this report, which reflects works completed to-date and the future progress of the programme.

FETHARD ON SEA MAIN DRAINAGE

Item	Week ending	22nd Feb	1st March	8th March	15th March	22nd March	29th March	5th April	12th April	19th April	26th April	3rd May	10th May	17th May	24th May	31st May	7th June	14th June	21st June	28th June	5th July	12th July	19th July	26th July	2nd August	9th August	16th August	23rd August	30th August	6th Sept	13th Sept	20th Sept	27th Sept	4th Oct	11th Oct	18th Oct	25th Oct	1st Nov
PART 8 DOCUMENTATION																																						
1	Part 8 Scheme Description	Complete																																				
2	Part 8 Drawings	Complete																																				
3	Noise, Odour & Air Assessment for Part 8 ER	Complete																																				
4	Mary Henry - Cultural Heritage Chapter for Part 8 ER	Complete																																				
5	Tay Lane Ecology Survey	Complete																																				
6	Appropriate Assessment Screening for WWTP, Pumping Station and Storage Tank	Complete																																				
7	Environmental Report for Part 8 Planning	Complete																																				
SITE INVESTIGATIONS																																						
8	Site Investigations Tender Documents	Complete																																				
9	WCC Approval of Tender Documents																																					
10	Tender Period (Three Invited Tenders)																																					
11	Report on Tenders																																					
12	Approval and Contract Award																																					
13	Foreshore Notice																																					
14	Mobilisation and Site Construction Period																																					
FORESHORE LICENCE																																						
15	Marine Ecology & Archaeology for Outfall 8	Complete																																				
16	Determine Construction Methodology																																					
17	Agree Construction Methodology with Department																																					
18	Environmental Report for Foreshore Application																																					
19	Completion of Foreshore Licence Application Form																																					
20	Appropriate Assessment of Discharge & Outfall for Foreshore Application																																					
21	Foreshore Licence Application Drawings																																					
22	Final Meeting with Foreshore Engineers																																					