



<b>Case Reference</b>	27.PC0202		
<b>Description</b>	Arklow Sewerage Scheme Wastewater Treatment Plant, Ferrybank, Arklow, Co. Wicklow		
<b>Case Type</b>	Section 37B, Planning and Development Act 2000, as amended		
<b>Meeting No.</b>	5	<b>Start Time</b>	2.30 p.m.
<b>Date</b>	9 <sup>th</sup> November 2016	<b>End Time</b>	3.55 p.m.
<b>Location</b>	Offices of An Bord Pleanála		
<b>Chairperson</b>	Anne Marie O'Connor		

<b>Attendees:</b>
<b>Representing An Bord Pleanála</b>
Anne Marie O'Connor, Assistant Director of Planning
Mairead Kenny, Senior Planning Inspector
Marcella Doyle, Senior Executive Officer
Sinéad McInerney, Executive Officer
<b>Representing the Prospective Applicant</b>
John Joyce, Irish Water (Project Manager)
Olwyn Joyce, Irish Water (Spatial Planning Specialist)
Eddie Feeley, Associate, Arup (Consultant EIS Lead)
Evelyn McAuliffe, Associate, Arup (Process Specialist)
Andrew Clancy, Partner, Clancy Moore (Project Architects)
Colm Moore, Partner, Clancy Moore (Project Architects)
Eamonn Sweetman, Director, Byrne Looby (Consultant Project Manager)

## **Introduction**

The prospective applicant and the teams were introduced.

As referred to at the previous meetings the Board's representatives have met with Wicklow County Council in respect of the proposed development. The Strategic Infrastructure Division of the Board has also had a presentation in relation to the proposal and the Board's representative reiterated the following five matters to be brought to the attention of the prospective applicant:

- Planning policy framework (local area plan and county development plan).
- Suitability of 'Design Build' approach.
- Whether reference sites can be identified (wastewater treatment plants of similar scale in similar locations).
- Separation distances.
- Contaminated land matters.

The prospective applicant informed the Board's representatives that following the previous meeting on 6<sup>th</sup> May 2016, and the requirement for a high design quality given the location of the proposed development in an urban area, a project architect has been appointed.

## **Presentation on Proposed Development**

The prospective applicant set out the background to the proposed development noting the requirement for a wastewater treatment plant in Arklow to address the issue of untreated waste currently being discharged to the Avoca River.

The preferred site option is the Old Wallboard Site in Ferrybank. The plant will be designed initially for 24,000 PE, to increase to 36,000 PE which would be the ultimate capacity. The design basis is for flow at 225l/h/d, BOD at 60g/h/d and storm flows with full treatment at 3DWF, preliminary treatment at Formula A. The design criteria will meet the requirements of the Urban Wastewater Directive.

The scope of the EIS, planning application and CPO was set out which includes enabling works, interceptor sewers and the wastewater treatment plant. With regard to the combined Sewer Overflow and Stormwater Storage Tank, the prospective applicant said that this element of the project has already been approved under a Part 8 process and may, therefore, be omitted from the planning application. The elements requiring foreshore consents and EPA discharge licences were also identified. In this regard, foreshore consent is required for the Southside Interceptor Sewer, the tunnel crossing the Avoca River and the short sea outfall, and an EPA discharge licence is required for the combined sewer overflow and stormwater storage tank, the long sea outfall and the short sea outfall.

The following matters were also discussed:

- The OPW flood relief scheme for Arklow includes 2 interceptor sewers, one to be located in the North Quay and one in the South Quay of the Avoca River. The prospective applicant outlined the possible interaction between the flood relief scheme and the WWTP project, and stated that the cumulative effects of both schemes would be assessed.
- The prospective applicant has looked at other plants of similar size located on the East coast. Further design considerations include developing all processes, tanks and plants within enclosed buildings in order to contain odour and noise and minimise visual intrusion, minimise noise and odour effects at site boundaries, process air extractions to be subject of odour treatment, achieve high architectural design quality and consider community gain elements.

Two types of wastewater **treatment technologies** have been examined:

- Type 1 – Conventional (Continuous Flow) Treatment Process which includes multiple tanks and involves preliminary treatment, primary treatment, secondary treatment and advanced treatment. Pros include processes being on the basis for secondary treatment requirements, continuous flow systems, not being heavily reliant on automation and it being a very common and reliable

technology. Cons include the high level of civil structures required, sludge being produced at various stages, potential odour risk at primary stage and individual units requiring covers.

- Type 2 – Sequencing Batch Reactor (SBR) process which includes a retention tank and a cycle consisting of four phases – fill, aeration, settle and draw off – which is then followed by effluent discharge. The same standards as Type 1 can be achieved with the pros including considerable less tankage being required, less primary sludge being produced which is the main source of odour, being less susceptible to fluctuations in hydraulic load and potential for retrofitting SBR variants and being capable of modification for future expansion. Cons include the requirement for more automation, higher level of MEICA maintenance and additional aeration devices being required.

Type 2 wastewater treatment technology has been identified as the preferred solution for the following reasons:

- Minimal footprint required; cost savings due to less tanks being required.
- No primary sludge therefore less tanker movements.
- Eliminates odour risk at source.
- Can meet required standards – secondary, sludge process compliance standards and potentially nutrient standards.
- Operating flexibility and control.
- Allows for future retrofitting.
- Can be easily modified.
- Technologies are well established.

Following a query from the Board's representatives, the prospective applicant confirmed that the option for dosing will be included in the application but it is considered that it is not likely to be part of the treatment process.

The prospective applicant said that recent developments in the market have been driven by efficiency, sustainability and performance stability. Batching is the basic process with variants including granular biomass process, integrated moving bed bioreactor (hybrid system) and degassing technology. All use SBR as the basic configuration, all offer improved performance and reduced sludge production, can further reduce the area required per m<sup>3</sup> of wastewater treated and can operate with improved energy efficiency.

With regard to the phasing of works, the prospective applicant referred to a 2 phase process as follows:

- Phase 1 – Formula A inlet works to be provided for ultimate flows, civil works for 36,000 PE to be carried out, MEICA works for 24,000 PE initially, allowance for retrofit of future SBR variants.
- Phase 2 – Additional MEICA elements to increase to full capacity, flexibility in design to improve performance of installed units, potentially increase biological processes to beyond the 36,000 PE through retrofitting variant technology.

The prospective applicant addressed the future proofing of the proposed development as follows:

- Stormwater handling will be provided for Formula A – 36,000 PE.
- Energy efficiency will be incorporated into the design.
- Flexibility to provide for expansion of the central treatment processes.
- For compliance requirements, the system can be modified for nutrient removal.
- Focus on low sludge producing technology.
- Flow and load survey to inform design prior to finalisation.

The current process unit design and dimensions were presented including inlet works, basic reactor layout and basic distribution chamber and reactor layout. It was confirmed that all works will be enclosed.

A presentation was given with regard to the **architectural design** of the proposed development. The key goals identified in the design are as follows:

- High architectural design standard and quality required having regard to the Waterfront zoning and urban location.
- To consider contribution to the public realm around the site by improving access to the shore, adjacent to the plant and potential links to adjacent sports ground.
- To ensure the potential to redevelop adjoining lands is not undermined.
- To not compromise the objectives for the area as set out in the Town and Environs Plan.

The visual analysis carried out identified the requirement to keep continuity of the coastal route, have regard to the landscaping quality of the area and use the aesthetic of the existing surrounds to underpin the site, provide a carpark as a public utility, provide informal foreshore access and ensure that the form and massing enhance the area. A number of potential layouts are being examined e.g. stacked and compact, linear, and linear and inflected. It is considered that the design should incorporate features/ characteristics to fit within the urban environment.

The prospective applicant has met with Wicklow County Council who are supportive of works to enhance the public realm and to allow for foreshore access. It confirmed that works relating to the public realm are still being examined and if they form part of the application, a letter of consent from Wicklow County Council would be included. In relation to community gain proposals, the prospective applicant said that it has commissioned a community needs analysis report for consideration. As the study is on-going, no firm decision with regard to works to the public realm have been made at this stage.

The prospective applicant addressed the development plan and policy context and stated that Objective WS has been amended in the draft Wicklow County Development Plan 2016-2022 as a proposed material alteration and relates

specifically to supporting and facilitating the development of a wastewater treatment plant in Arklow at an optimal location following detailed technical and environmental assessment and public consultation. Preparation of the Arklow and Environs Local Area Plan has commenced and the closing date for submissions was 11<sup>th</sup> November 2016. Irish Water has requested that the county development plan objective referred to above be included in the LAP. The timeframe for adoption of the LAP is not yet known.

In relation to on-going **consultations**, the prospective applicant stated that engagement with the public is on-going. In particular, it has met with residents and Board of Management of the Arklow Marina Village development. The main issue of concern related to construction traffic impacts which the prospective applicant considers it can mitigate. The prospective applicant confirmed that it has also met with Bray Chamber of Commerce. Public engagement has taken place through website updates and press releases and the prospective applicant will carry out non-statutory consultation in Quarter 1 of 2017.

Preparation of the EIS and the planning application is on-going including preparation of an EIS Scoping report which will issue to coincide with the non-statutory consultation. EIS Baseline surveys are being carried out including biodiversity-terrestrial surveys and marine site investigations. With regard to the marine site investigations a grant of a foreshore licence is imminent. Archaeology geophysics and ecological benthic sampling will be undertaken. The prospective applicant is also engaging with Wicklow County Council/ OPW with regard to interaction with the Arklow Flood Relief Scheme and potential construction phasing scenarios. It anticipates lodgement of an application circa May 2017.

The presentation concluded.

## **Further Matters Discussed**

The prospective applicant confirmed that, while Phase 1 will include development of all physical works for 36,000 PE capacity, it sought advice from the Board on whether it should seek a timeframe for operation of the wastewater treatment plant for 24,000 PE initially, increasing to 36,000 PE capacity in Phase 2. The Board's representatives considered that if the works are built in Phase 1 to allow for future capacity of 36,000 PE, then this may be more of a licencing issue for the EPA. The matter can be discussed further at a later date.

With regard to the overlap of works for the flood relief scheme, the prospective applicant said that the OPW may potentially include the relevant element of the wastewater treatment plant in its application and vice versa. As referred to earlier, meetings have taken place between Irish Water and the OPW to discuss and co-ordinate such an approach. The Board's representatives advised the prospective applicant to be mindful that if its application for the wastewater treatment plant is approved, it would be required to implement that approval in full. It also said that it may be difficult for the Board to assess one element of another project without that development being the subject of an application before the Board. The prospective applicant said that each EIS would have full regard to the other with similar methodology and approach to both projects and cumulative impact being addressed. The Board's representatives advised the prospective applicant to address worst case scenarios of both schemes in its EIS and appropriate assessment, in particular in relation to its construction impact assessment. The prospective applicant stated that, ideally, it's preference is for construction works to take place at the same time and it will give further consideration to the matters raised by the Board's representatives in relation to the overlap of the two projects.

The Board's representatives queried the status of the site investigations with regard to potential contaminants on site. The prospective applicant confirmed that investigations at the quay walls have been completed but such investigations on the



Old Wallboard Site have not yet taken place, due to the presence of asbestos and also an issue with gaining access to the site. The prospective applicant confirmed that the application will include site investigations, in this regard noting that previous studies had been carried out including for a draft EIS. With regard to access to the site, it was confirmed that the site is not in the ownership of Irish Water and while it might be possible to acquire the land through the liquidator, it may be necessary to make an application to An Bord Pleanála for confirmation of a compulsory purchase order. If required, the Board's representatives advised that procedures in relation to an application for a CPO can be addressed in more detail at a further meeting.

With regard to public consultation, the Board's representatives encouraged the prospective applicant to identify all users of the harbour and to engage with them prior to submission of the application.

The prospective applicant confirmed that it has met with the EPA. The Agency will not be in a position to advise on licence requirements until the development has been approved by An Bord Pleanála.

One of the issues raised by the SID Division of the Board related to identification of reference sites. The prospective application said it had looked at sites such as Malahide, Mutton Island and Bray/Shanganagh Wastewater Treatment Plants and would make reference to how similar potential issues have been addressed in those established developments.

## **Conclusion**

The prospective applicant will revert to the Board when it wishes to have a further pre-application consultation meeting.

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**Anne Marie O'Connor**

**Assistant Director of Planning**

**December 2016**