

An Bord Pleanála Oral Hearing

Irish Water

Greater Dublin Drainage

Brief of Evidence

Landscape and Visual

Richard Barker

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Qualifications and Role on the Proposed Project

- 1 My name is Richard Barker. I have a master's degree in Landscape Architecture, a Bachelor of Arts in Environmental Studies and a Post Graduate Diploma in Forestry.
- 2 I am a full Corporate Member of the Irish Landscape Institute and I have 15 years of experience in the field of landscape and visual impact assessment. I also worked for a period of 5 years as a Town Planner prior to qualifying as a Landscape Architect.
- 3 I am a director in Macro Works Ltd., a company that specialises in landscape and visual impact assessment with experience that extends to a broad range of energy, commercial and infrastructural development types over the past 20 years. I have been the lead Landscape Architect on the Greater Dublin Drainage Project since the beginning of the site selection stage and was responsible for the preparation of the landscape and visual Chapter of the Environmental Impact Assessment Report (EIAR) for the Proposed Project. Macro Works also prepared landscape mitigation design drawings and prepared the photomontages that formed the basis of the visual impact assessment.

Summary of Likely Significant Impacts and Mitigation

- 4 The Landscape and Visual Impact Assessment described in Chapter 12 in Volume 3 Part A of the EIAR was undertaken in accordance with the Guidelines for Landscape and Visual Impact Assessment (2013), which are recognised as the industry standard in Ireland and the UK. These Guidelines provide for a separate consideration of both landscape effects and visual effects throughout the various stages of a development.
- 5 The landscape and visual study area for the Proposed Project varied in extent for the individual elements of the Proposed Project depending on the nature and magnitude of likely impacts. For the proposed Wastewater Treatment Plant (WwTP) which is the largest, permanent above-ground feature, a 3km radius study area was used. For the much smaller scale proposed Abbotstown pumping station, the study area was reduced to a 500m radius. For all of the proposed pipeline routes and associated temporary construction compounds, where above-ground effects are predominantly temporary, a 500m study area either side of the route was used.
- 6 The Landscape and Visual Assessment was based on a series of five site visits undertaken between 2011 and 2018 as well as photomontage depictions of the proposed WwTP and Abbotstown pumping station elements from a range of 14 viewpoints selected within the relevant study areas of the proposed WwTP and Abbotstown pumping station. A further 'windshield' survey was also undertaken in March 2019 in order to ascertain whether any recent changes had occurred within the receiving landscape that might materially alter the findings of the assessment detailed in the 2018 EIAR. I can confirm that no such changes were noted.
- 7 The receiving landscape is a richly diverse mix of industrial, residential, rural and major transport and electrical infrastructure. This typical peri-urban land use mix contributes to a general robustness for this landscape setting. However, there are some more sensitive landscapes within the vicinity of the Proposed Project. In respect of the Proposed Orbital Pipeline, it is the westernmost section, contained within the Tolka Valley High Sensitivity Landscape (HSL) zoning, that is of comparatively higher sensitivity than the more easterly sections. For the proposed Outfall Pipeline (land based section), the most sensitive landscape setting encountered is that of the Malahide Road Demesnes HSL zoning, whilst for the Outfall Pipeline (marine section) it is the Baldoyle Estuary / Coast HSL that is of comparatively higher sensitivity. Though not directly impacted by the proposed WwTP, the Malahide Road Demesnes HSL is the highest sensitivity landscape that could be influenced by the construction and operation of the WwTP facility proposed approximately 1.2km to the west.

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- 8 Given that the proposed pipeline routes will be buried underground with the landscape above reinstated, Operational Phase landscape and visual impacts will be negligible. The localised, temporary and transient nature of pipeline related construction works also ensures that significant impacts will not occur during the Construction Phase even where the pipeline routes encounter higher sensitivity landscape areas such as those classified as High Sensitivity Landscapes (HSL) in the Fingal County Development Plan. (see Section 12.4 in Volume 3 Part A of the EIAR; Impact of the Proposed Project - Construction Phase and Section 12.5; Impact of the Proposed Project – Operational Phase).
- 9 The proposed Abbotstown pumping station is a modest scale facility that is well enclosed and substantially housed in a vernacular style building. The design of the building and the surrounding landscape mitigation planting has taken account of the parkland landscape setting, which is contained within the Tolka Valley HSL zoning in a location that is visible from St Francis' Hospice. Consequently, the pumping station will not contrast with its surrounding landscape setting and therefore, landscape and visual effects are not considered to be significant (see Sections 12.5.2 and 12.5.3 in Volume 3 Part A of the EIAR).
- 10 There will be some Construction Phase effects in the sensitive coastal zone surrounding Baldoyle Estuary. These mainly relate to Construction Compound 9, adjacent to the west of the R106 scenic route and Construction Compound 10, adjacent to the east of the Golf Links Road. However, these effects, which will arise from the movement of vehicles and machinery as well as the temporary stockpiling of materials, will be modest in scale and temporary or short-term in duration, thereby resulting in a 'Slight' significance of landscape and visual impact. Of particular note, is that the two construction compounds contained within the coastal zone are also contained on the landward side of roads that skirt Baldoyle Estuary where they will not present as a visual obstruction of scenic coastal vistas. All other aspects of the Outfall Pipeline (marine section) will be sub-surface and will not influence the coastal landscape / seascape character or coastal views. Consequently, Construction Phase landscape and visual effects within the Baldoyle Estuary and the Portmarnock coastline are deemed not to be significant (see Sections 12.4.3 and 12.4.5 in Volume 3 Part A of the EIAR and Section 12.4 of Irish Water's Response to Submissions January 2019 document).
- 11 The proposed WwTP has the *potential* to generate significant landscape impacts during both the construction and operational phases of the development due to the scale and nature of the facility within an urban/rural interface setting. However, significant landscape impacts will not occur in this instance due to a balance between the predicted 'High' magnitude of impact on the character of the site and its immediate surrounds, weighed against the 'Low sensitivity' classification of the receiving landscape character unit within both the Fingal County Development Plan and the LVIA for the Proposed Project. The resultant significance of landscape impact is deemed to be Moderate-slight. It is also worth noting that, notwithstanding the impacts on the character of the current rural hinterland setting, the proposed campus style design of the WwTP will amalgamate more readily with likely future development of the East-West distributor Road and commercial enterprises within the High Technology zoning, which are both adjacent to the south of the WwTP site.
- 12 Some of the proposed mitigation measures are 'embedded' in the overall siting and design of the Proposed Project and consist of a perimeter earth berm, the dispersed arrangement of buildings within the site, and a recessive and disseminated colour scheme for buildings (see Section 12.7 in Volume 3 Part A of the EIAR – Mitigation Measures). When these inherent mitigation measures are coupled with the proposed internal planting within the WwTP site and external planting along the perimeter berm, residual impacts will be reduced (see Section 12.8 in Volume 3 Part A of the EIAR – Residual Impacts).
- 13 The proposed WwTP will not give rise to any significant visual impacts because it will be buffered from surrounding roads and residences by considerable distances and will not be readily visible from the surrounding area due to existing levels of vegetation screening within that intervening landscape. Notwithstanding, there are some very localised receptors where pre-mitigation impacts are deemed to be in the mid to high range and these include a section of the Clonshaugh Road (represented by VP1) and from

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a private dwelling at Middletown just to the north of the site (represented by VP4). Both of these receptors are considered to incur 'Substantial-moderate' pre-mitigation visual impacts, reducing to 'Moderate' and Moderate-slight respectively once mitigation planting around the perimeter berm of the site becomes established. A 'Moderate' pre-mitigation impact was also attributed to the view from the top storey of the Clayton Hotel Dublin Airport (represented by VP2) with the residual visual impact reducing to 'Moderate-slight' once mitigation planting becomes established.

Response to Issues Raised in Submissions/Observations

Response to General Issues Raised

- 14 The issues raised in the submissions related to general themes that had been addressed within Chapter 12 in Volume 3 Part A of the EIAR. These general themes included:
- Visual obtrusion;
 - Views from Dublin Airport;
 - Height and size of the proposed Wastewater Treatment Plant;
 - Visual impact;
 - Landscape impact; and
 - Visual impact on tourism.
- 15 Though these are identified as general themes, because they do not specify particular parts of the assessment or specific receptors, they all principally relate to the potential landscape and visual effects generated by the proposed WwTP facility. By way of response to submissions on general themes, Irish Water's Response to Submissions January 2019 document, submitted to An Bord Pleanála on 11 January 2019, refers to the relevant sections of Chapter 12 in Volume 3 Part A of the EIAR, wherein it was concluded that, although there will be some localised effects on landscape character and views from local roads and residences, these were deemed not to be significant and would be further reduced once proposed mitigation screening planting on top of the perimeter earth berms becomes established.
- 16 In addition to submissions covering general themes, there were also several specific and detailed submissions, for which, detailed responses were prepared and presented in Irish Water's Response to Submissions January 2019 document. These included submissions from Thomas P. Broughan TD; Portmarnock Community Association; and Fáilte Ireland.

Response to Specific Issues Raised

Submission Received from Fáilte Ireland

- 17 The Fáilte Ireland submission raised two separate concerns. The first is that the Landscape and Visual assessment contained in the EIAR shows that significant visual impacts will occur in the surrounding areas of Dublin Airport, St. Doolagh's and the immediate demesne, house and gardens located around the proposed WwTP. The second concern relates to effects on visual amenities of Baldoyle Estuary Special Area of Conservation/Special Protection Area including views of Howth, Ireland's Eye and Lambay Island from two designated scenic routes along the Coast Road and Golf Links Road due to construction traffic accessing and exiting the nearby proposed temporary construction compounds.

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- 18 By way of response to the first concern in respect of the proposed WwTP, it was explained in Irish Water's Response to Submissions January 2019 document (Section 12.4.1) that the Fáilte Ireland submission appeared to have confused a 'High' sensitivity judgement attributed to an enclave of connected demesne landscapes along the Malahide Road, which form a High Sensitivity Landscape (HSL) zoning, as being a judgement of 'High' impact. The misperception was clear because the submission cited section 12.4.1(c), which only addresses sensitivity.
- 19 For clarity, the landscape impact significance judgements that are actually made in respect of the subject Malahide Road HSL are 'Slight' at Construction Phase and 'Imperceptible' at Operational Phase. In terms of visual impacts, viewpoint 'VP10' is from St Doolagh's Church and the visual impact significance at this location was deemed to be 'Imperceptible' during all phases. Viewpoints VP3 – 'local road at Springhill' and VP5 – 'Springhill House' were also used to assess visual impacts from within the Malahide Road HSL zoning. At VP3 the pre-mitigation visual impact significance is deemed to be 'Slight-imperceptible' reducing to 'Imperceptible' once mitigation becomes established. At VP5 pre-mitigation visual impact significance is deemed to be 'Moderate-slight' reducing to 'Slight' once mitigation becomes established. None of these landscape or visual impacts are considered to be significant.
- 20 In respect of Dublin Airport and its environs, there were also two representative viewpoints selected; VP7 – 'M1 Motorway airport interchange' and; VP8 – 'Glazed skyway between sections of Dublin Airport Terminal 2'. Visual impact significance is deemed to be 'Imperceptible' and 'Slight-imperceptible' for VP7 and VP8 respectively, during all phases. Again, these are not significant impacts, as suggested in the submission.
- 21 In response to Fáilte Ireland's concerns relating to Construction Phase visual impacts around Baldoyle Estuary and other offshore coastal features due to increased traffic in the vicinity of the proposed temporary construction compounds, Irish Water's Response to Submissions January 2019 document addressed this concern in Section 12.4.1. It is considered that a 'Slight' significance of visual impact is likely to occur during the Construction Phase. This assessment weighs the relatively high sensitivity of visual receptors in this scenic coastal area, against the modest scale of likely effects and their temporary/short-term duration. It should also be noted that proposed temporary construction compound no. 9 is to be situated on the western (inland) side of the Coast Road scenic route where it will not obstruct views across Baldoyle Estuary. Likewise, proposed temporary construction compound no. 10 is located on the eastern side of the Golf Links Road scenic route, where it will not obstruct views across Baldoyle Estuary and easterly sea views are not afforded from this location.

[Submission Received from Thomas P. Broughan TD](#)

- 22 This submission raised concerns about visual impacts generated by the proposed WwTP, when viewed from the Caragh Park and Moatview estates, which extend beyond 700m to the south of the site on the southern side of the R139 Road. A particular concern being that the tallest of the proposed buildings are proposed along the southern boundary of the site where they will be nearest to these housing estates. Irish Water's Response to Submissions January 2019 document, Section 12.3.1, clarifies that the decision to place the tallest buildings along the southern side of the site was selected in consultation with planners from Fingal County Council in order to present a 'campus style' arrangement of buildings to squarely and unapologetically front the planned new road dividing the proposed WwTP from the adjacent Technology Park zoning. The placement of these buildings along the southern side of the site was also to deliberately move them further from the rural interface of the site where a more subtle transition of scale and blended design approach of woodland planted berms will more readily fuse with the surrounding agricultural hinterland to the north. Due to the relative viewing distances and intervening screening involved, the arrangement of tall buildings within the site has little consequence for potential visual impacts from the housing estates in question.

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- 23 Notwithstanding the relative placement of the taller structures within the site, views of the proposed WwTP will be very restricted from residential receptors to the south. Even where partial visibility may occur, it is likely to consist of only the uppermost facades and rooflines of the tallest proposed structures and from within a complex and busy suburban setting. To illustrate this, Macro Works were able to obtain Digital Surface Model (DSM) data that had been captured as recently as the Summer of 2018. Using this DSM data, which accounts for screening by trees and buildings, visibility maps were provided as part of Irish Water's Response to Submissions January 2019 document. These maps confirm that only narrow glimpsed views of the tallest proposed structures will be afforded from any receptors to the south of the R139 Road at distances generally in excess of 1km. Furthermore, as part of the mitigation strategy, the upper portions of the taller buildings will be light grey to help them recede against a backdrop of sky. Instead of being 'easily visible', as suggested in the submission, the proposed WwTP will be barely noticeable from southern residential areas and only from very limited locations where there will be no material consequence for visual amenity.
- 24 Deputy Broughan's submission also raised a concern that the submitted photomontages did not give a good insight into the overall design of the proposed WwTP. This is not as a result of an error or omission with the photomontages, but rather arises as a result of the limited visibility of the proposed WwTP from surrounding receptor locations represented by the photomontage set. It must also be noted that the purpose of LVIA photomontages is to represent views from representative receptor locations within the surrounding area in order to inform the visual impact assessment and not to give overview or contextual visualisations of the Proposed Project of the type being sought in this submission.

[Submission Received from Portmarnock Community Association](#)

- 25 The Portmarnock Community Association submission requested that the proposed WwTP site should be landscaped to ensure that untreated wastewater will not exit the site and should include mounding around the entire site, screen planting etc. Irish Water's Response to Submissions January 2019 document highlights in Section 12.3.2 that this is not, and need not, be one of the purposes of the landscape mitigation plan, as other failsafe operational measures are provided. These are detailed in Chapter 22 in Volume 3 Part A of the EIAR.

Conclusion

- 26 It is considered that all of the landscape and visual concerns raised, whether general or specific, were assessed in the Landscape and Visual Assessment that was presented in Chapter 12 in Volume 3 Part A of the EIAR.
- 27 The proposed pipeline sections will encounter some higher sensitivity landscape settings within a generally robust peri-urban landscape and some construction stage landscape and visual effects will arise from these aspects of the Proposed Project. However, such effects are modest in scale and temporary in duration and are not deemed to be significant. There will be no material operational stage effects from these sub-surface aspects of the proposed development.
- 28 The Landscape and Visual Assessment contained within the EIAR acknowledged that some permanent residual effects will result from the Proposed Project and that these principally relate to the WwTP. Such effects are not considered to be significant due to the robust urban fringe site context as well as the buffer distances to nearest roads and dwellings, coupled with considerable existing screening in the form of hedgerows and tree-lines that can be readily supplemented by proposed mitigation screen planting. The additional DSM visibility mapping prepared in respect of the proposed WwTP site as part of Irish Water's Response to Submissions January 2019 document, confirms and reinforces the assessment contained within the EIAR and particularly, the limited visibility of the proposed WwTP even prior to the establishment of perimeter mitigation planting.