Greater Dublin Drainage

Alternative Sites Assessment - Phase Four

Appendix 7
Landscape and Visual

June 2013

Document control sheet P 04 F8

Client: Fingal County Council

Project: Greater Dublin Drainage Job No: 32102900

Document Title: Landscape and Visual

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7 Landscape

7.1 Introduction

Phase four of the Alternative Site Assessment (ASA) process entails a finer grain of analysis for the three remaining site alternatives which are; Annsbrook; Newtowncorduff and; Clonshagh. This will endeavour to refine the site selection down to the single most preferred site. The analysis now incorporates the likely location and massing of the various built structures on each site.

In landscape and visual terms this stage will examine the inherent screening surrounding each of the three remaining sites using Route Screening Analysis (RSA). A clearer understanding of the visual exposure and appearance of the site will also be achieved through the production of basic photomontages from the most sensitive viewing locations surrounding each site. Using this combination of RSA and photomontages it will be possible to assess the following with regard to potential mitigation;

- The extent of existing screening around each site
- The extent of exposure to sensitive visual receptors
- The potential to provide effective mitigation screening within each site
- The likely form of mitigation with regard to planting and external finishes in relation to each site context

7.2 Methodology

Using indicative site plans, elevations and floor levels for the likely design of the WwTP at each site the visualisation experts' prepared three-dimensional mass models of the development for analysis. These mass models are deliberately rudimentary in appearance at this stage with the built elements allocated a single bright colour for analysis purposes only. The mass models were then used for the purposes of the RSA and photomontage production.

7.2.1 Route Screening Analysis (RSA)

Route Screening Analysis recognised visual assessment tool that consists of driving roads in the vicinity of each of the potential WwTP sites and ascertaining whether full screening, partial screening or no screening exists at the roadside. In order to do this accurately a sophisticated GPS system is integrated with a live layout model of the development so that the scale and extent of the scheme is apparent to the assessor from any location on the surrounding roads (using a laptop or tablet). This allows a judgement to be made of the degree of screening afforded along with the positional data with which to map the results. For the purposes of this assessment RSA was undertaken on roads within a 2km radius of the boundary of each site. Minor access roads (grey roads on OSI discovery series maps), driveways and residential estates are not surveyed as part of the RSA. Likely screening levels for these lower order access roads can be fairly accurately interpolated using the analysis from the surrounding network of higher order roads. The RSA work was undertaken in March 2013.

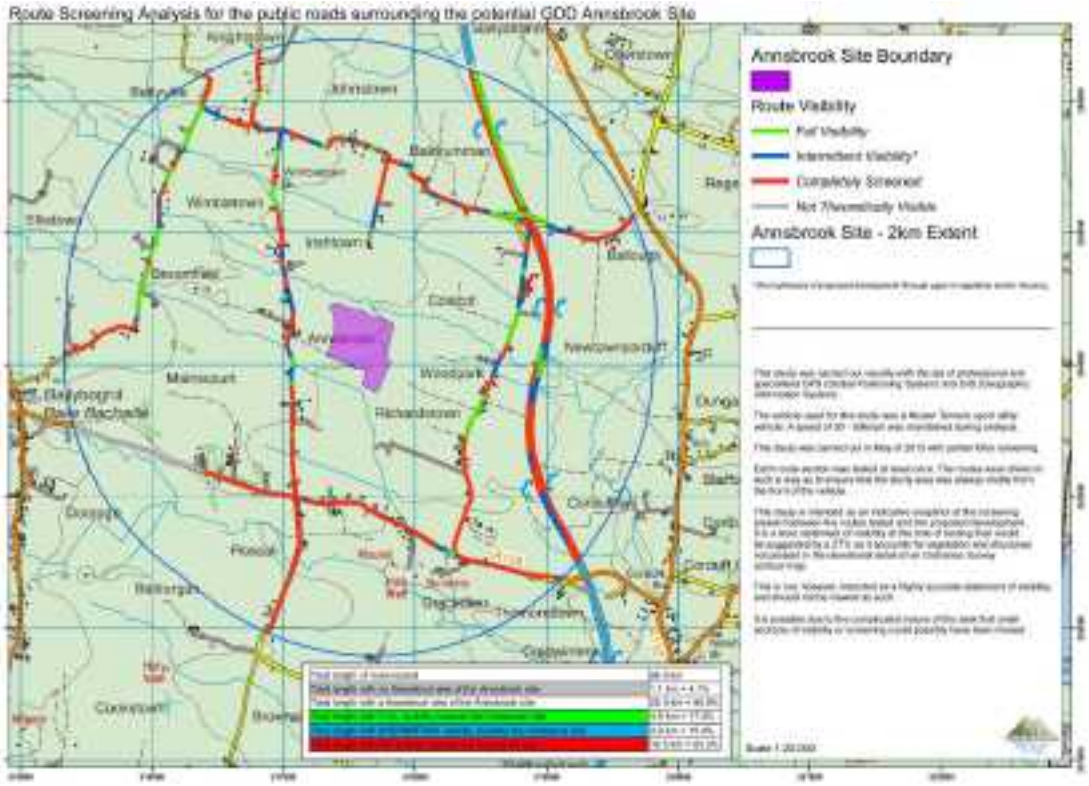
7.2.2 Preliminary Photomontages

Photomontages provide an accurate sense of how a proposed development will appear in a view of the landscape. To do this a proposed development is superimposed onto a photograph of the landscape setting. In this instance a simple, colour coded mass-model of the proposed WwTP is merged with photography captured from what are considered the 2-3 most sensitive visual receptor locations for each of the remaining sites.

7.3 Assessment

7.3.1 Annsbrook

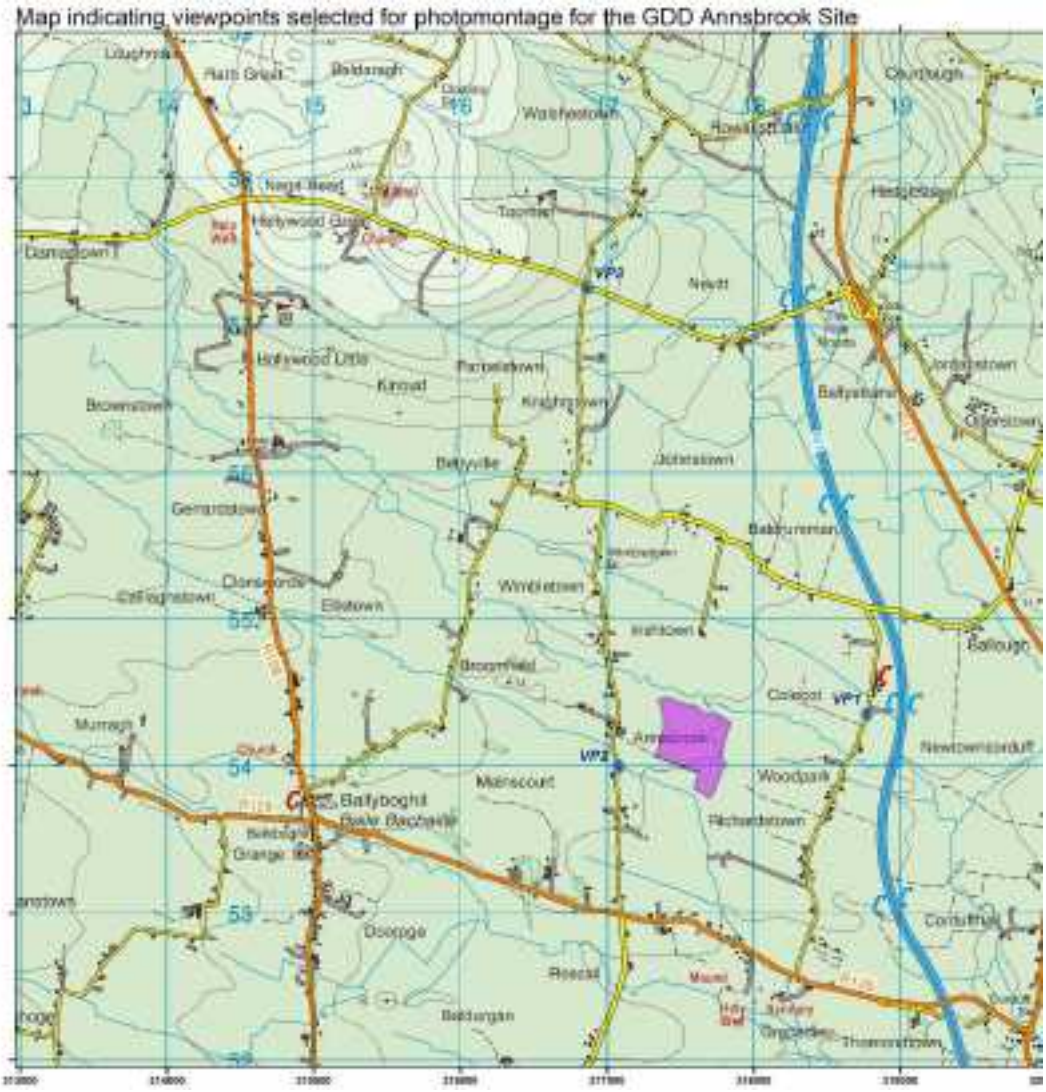
(a) Annsbrook Route Screening Analysis



The Route Screening Analysis for Annsbrook indicates that it is a relatively well screened site when viewed from the surrounding road network with the majority (63.3%) afforded no visibility. Very limited visibility is afforded from the R129 to the south of the site. Otherwise, sections of road with full visibility are evenly distributed in short sections amounting to 17.2%. This sporadic trend in visibility is reinforced by the relatively high proportion of intermittent visibility (15.4%).

(b) Annsbrook Photomontages

Map indicating viewpoints selected for photomontage for the GDD Annsbrook Site



Annsbrook Viewpoint 1 (VP1) is from the local road to the east of the site looking in a westerly direction at a distance of nearly 1km. As can be seen in the photomontage the WwTP is largely screened by intervening hedgerows so that only the upper most sections of the tallest structures would be partially visible. The proposal may still be a noticeable feature in the context of this otherwise entirely rural vista.

Annsbrook VP2 is from the local road to the west of the site looking in an easterly direction at a distance of approximately 250m. The WwTP is substantially visible from here and there is a sense of its full extent. The taller elements of the facility rise above the dense lower portion of the intervening hedgerow, but are still seen below the taller trees that rise out of the hedgerow. The proposal is likely to be a distinctive element in this wholly rural context.

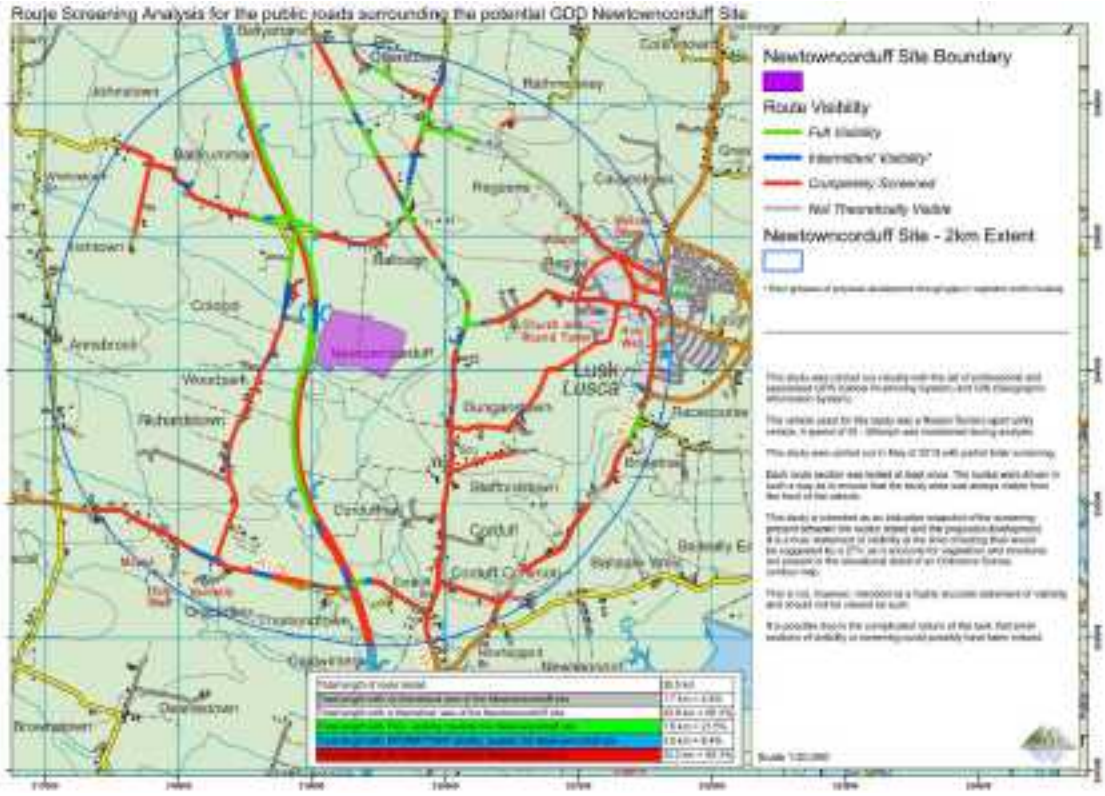
Annsbrook VP3 is from an elevated local road that is designated as a scenic route some 2.5km to the north of the site. As can be seen from the photomontage the proposed WwTP is barely discernible from here amongst the hedgerows that become stacked together in perspective.

(c) Potential for Mitigation

From the RSA data and photomontages it is apparent that mitigation screen planting would be very effective at the Annsbrook site. Hedgerows tend to be quite low but with intermittent taller trees rising out of them. In order to tie in with the existing landscape context a similar form of screen planting should be applied with tall vegetation focussed around the taller elements of the development. A frequent combination of matt, dark medium and light tones should be applied to the external finishes of the structures in order to break up the massing and camouflage the scheme within screening vegetation. The colour swatch should reflect the rural context of this site taking its cue from both the screening elements as well as other large farm storage buildings in the vicinity.

7.3.2 Newtowncorduff

(a) Newtowncorduff Route Screening Analysis



The Newtowncorduff site shows a similar degree of 'full screening' from the surrounding road network as for the Annsbrook site (65.3%), but a higher proportion of full visibility also (21.5%). The majority of full and intermittent visibility occurs along the motorway to the west of the site and the R132 to the east of the site. Little to no visibility occurs from the nearby settlement of Lusk.

(b) Newtowncorduff Photomontages

Map indicating viewpoints selected for photomontage for the GDD Newtowncorduff Site

Newtowncorduff VP1 is from the intersection of the R132 and a local road, which are both subject of a scenic route designation. The viewing direction is to the south and the distance is approximately 750m. The proposed WwTP is partially screened from here but the taller elements provide a slight intrusion on the distant view of the Dublin Mountains

Newtowncorduff VP2 is from the R132 directly east of the site at a distance of approximately 350m. The lower elements are relatively well screened by clumps of existing conifers close to the site, but the taller elements are prominently visible in silhouette.

Newtowncorduff VP3 which is also the location of Annsbrook VP3 represents a scenic route designation on a local road nearly 3km to the northwest of the site. As can be seen from the photomontage the proposed WwTP will be barely discernible at this distance amongst the stacked hedgerows and other development within the plains below.

Newtowncorduff VP4 is from a local road overpass of the M1 approximately 750m to the north of the site. From this slightly elevated location there is a relatively comprehensive view of the proposed WwTP partially in silhouette. Little screening is provided by the low level hedgerows and roadside vegetation in the foreground.

(c) Potential for Mitigation

The RSA data and photomontages indicate there is a reasonable potential to screen the WwTP at this site. However, given the generally low level of existing hedgerow screening it will be important that proposed screen planting does not contribute to the visual impact, essentially as a tall vegetative wall. This is particularly true from VP1 where open views towards the Dublin Mountains are currently afforded. A cue could be taken from the clumps of conifers that exist in close proximity to the site with additional clumps used to strategically screen taller elements of the scheme from sensitive viewing locations. Matt finishes should be applied to all structures in a varied tone

colour scheme that will break up the massing of development. Although this is generally a rural context there are a number of significant scale rural industry, retail warehousing and commercial enterprises along this stretch of the M1 motorway. Thus, there is some flexibility as to how the development will best blend in with the surrounding landscape context.

7.3.3 Clonshagh

(a) Clonshagh Route Screening Analysis

The RSA data for the Clonshagh site reveals a very high degree of full screening from the surrounding road network (82.6%). The majority of full visibility (6.6%) occurs from the motorway overpasses to the west. There is little to no visibility from roads to the south and east and this can be safely assumed to apply to all of the intervening suburban streets to the south of the N32 as well.

(b) Clonshagh Photomontages

Map indicating viewpoints selected for photomontage for the GDD Clonshagh Site

Note: It is not possible to produce a photomontage from the motorway overpass for safety reasons. This would not be considered a particularly sensitive receptor in any event.

Clonshagh VP1 is from the local road adjacent to the west of the proposal site at a distance of approximately 300m. A reasonable degree of screening is provided by the taller sections of hedgerows, but the hedgerows are predominantly low in this area. Despite the screening there is a sense of the extent of the development and the taller elements, which are viewed in silhouette may intrude on distant views of Howth Head from some receptors.

Clonshagh VP2 is from the upper level in Bewleys Airport Hotel some 600m to the southwest of the site. This elevated viewpoint affords an oblique vista over the site and a clear comprehension of the scale and extent of the proposed WwTP. Existing screening is of little or no value from this receptor.

Clonshagh VP3 is from a local access road approximately 500m to the east of the proposal site. There is a high level of existing screening that will limit potential views of the proposed WwTP from this location.

(c) Potential for Mitigation

There is a strong potential to effectively mitigate the proposal on this site from ground based receptors using screen planting. This should take the form of low hedgerows with frequent taller trees in order to reflect the existing landscape context. It will be difficult to screen the view from the upper storeys of Bewleys Hotel, however a considered strategy for external finishes will provide amelioration.
The lands immediately to the south of the proposed site at Clonshagh are zoned objective HT in the Fingal County Development Plan 2011 – 2017, to provide for office, research and development, and high technology / high technology manufacturing type employment in high quality built and landscaped environment. It is also an objective of the Development Plan 2011 – 2017 to provide a new distributer road to service this. Consequently, the current rural context is likely to change to that of a campus of modern buildings.
Consequently, the current rural context is likely to change to that of a campus of modern buildings. The strategy for the WwTP, could reflect this context by utilising high quality modern finishes to all structures. Hedgerow screen planting would not be appropriate to the roadside and public facades of the WwTP in a technology park context. Instead, ornamental shrub planting and specimen trees would better serve to blend the facility with its surroundings. Rather than a dispersed and frequently interrupted colour scheme using subtle tones (rural context), the external finishes to suit a technology park context might be bold, blocky and reflective. It should be noted that the financial costs of achieving effective mitigation through planting and external finishes in such a context are likely to be considerably higher than for a rural context.

7.4 Summary

Based on consideration of the Route Screening Analysis data and photomontages prepared in respect of the Annsbrook, Newtowncorduff and Clonshagh sites, they all remain valid alternatives for the proposed WwTP from a landscape and visual perspective. Notwithstanding, each site represents a slightly different challenge with regard to providing effective mitigation through a combination of screen planting and external finishes. The Annsbrook site, whilst relatively well screened at present, will require considered and comprehensive mitigation in the form of screen planting so that it will not significantly detract from the almost wholly rural character of the locality. The Newtowncorduff site affords a reasonable degree of flexibility with regard to the external finishes of the WwTP structures. Screen planting to reflect existing vegetation patterns in the locality will be required to mitigate views from the more sensitive receptors to the north and east. Clonshagh is currently the most screened of the three sites and would require the least additional screen planting. However, the form of mitigation may need to account for planning objectives to generate a new road and technology park in its immediate vicinity, thus altering the receiving landscape context from urban fringe farmland.