An Bord Pleanála Oral Hearing

Irish Water

Greater Dublin Drainage

Response to Soils and Geology Questions

Eoin Wyse (28th March 2019)

GDD Oral Hearing
General Response in Relation to Soils and Geology Questions

1 Ms. Joyce-Kemper states the following in Paragraph 26:

"Irish Water does not have actual scientific information regarding the geology directly under Baldoyle Estuary where the tunnel boring will actually take place. Borehole samples were taken each side of the estuary itself due to its strict protected status."

2 As is common in most construction projects, ground models for projects are based upon numerous information sources such as, but not limited to geological maps, historic investigations in the area and overburden mapping (See Section 18.2.5 Baseline Data Collection, Chapter 18 Soils and Geology, Volume 3 of the EIAR). By examining the existing landforms and understanding the geological history and geomorphology of a site, these can all be used to assist in constructing a robust ground model. This ground model should then be assessed and confirmed through the project specific ground investigation (See Section 18.3.3 Site Specific Information, Chapter 18 Soils and Geology, Volume 3 of the EIAR). In the area around Baldoyle Bay, the following project specific ground investigations were carried out:

- 3 no. Boreholes drilled to depths varying from 22.7m below ground level to 78.4m below ground level.

- Geophysical surveys of the Portmarnock Golf Course

3 These are combined with the regional scale investigations carried out in relation to the outfall, pipeline and WwTP to examine the broader context of the site.

4 Based on the information available to us we can see that the tunnel in this area will be located within the bedrock beneath the estuary. From the GSI regional bedrock map 1:100,000 (Figure 18.2 Bedrock Geology Portmarnock to Marine Outfall Location (Sheet 3 of 3)), the area is underlain by the Malahide formation. This was confirmed by the boreholes and aligns with the results of the geophysics carried out in the area.

5 We would therefore state that we do have an understanding and appreciation of the geology underlying Baldoyle SAC sufficient to allow us to consider the likely impacts associated with the construction of the pipeline.