PLANNING
ACK'D
REPLIED
FOR ACTION

Flood Risk Assessment Pro-forma

Flood risk assessment for new development

1 Development description and location

1a. What type of development is proposed and where will it be located?
Proposal to construct an open below ground screening chamber, including access road and above ground control building.

1b. What is its vulnerability classification?
Water compatible development.

1c. Is the proposed development consistent with the Local Development Documents?
N/A - would not be in Local Plan

1d. Please provide evidence that the Sequential Test or Exception Test has been applied in the selection of this site for this development type?
The installation will be partially sited within Zone 2 (Table D.1, PPS25), although the actual finished ground levels will place the above ground structures in Zone1.

The screening chamber has to be located adjacent to the existing sewer network and downstream of the Combined Sewer Overflow which limits the availability of suitable locations and therefore The Sequential Test is over-ridden.

The application of The Exception Test is not required for a water compatible development within Zone 2.

2. Definition of the flood hazard

2a. What sources of flooding could affect the site? (see Annex C PPS25).
River flooding from the River Mersey.

2b. For each identified source, describe how flooding would occur, with reference to any historic records wherever these are available.
Flooding is understood to occur due to rising levels in the River Mersey resulting in the overtopping of embankments adjacent to the A5103 road crossing.

2c. What are the existing surface water drainage arrangements for the site?

It is a wooded greenfield site and likely to be drained by natural means.

3. Probability

3a Which flood zone is the site within?
Zone 2

3b If there is a Strategic Flood Risk Assessment covering this site, what does it show?
No

3c What is the probability of the site flooding taking account of the contents of the SFRA and of any further site-specific assessment?
1 in 200 or less

3d What are the existing rates and volumes of run-off generated by the site?
Existing rate is very low being a greenfield site. The building and access road will generate a run-off of 14 l/sec at a rainfall intensity of 50mm/hr.

4. Climate change

4a How is flood risk at the site likely to be affected by climate change?
The flood risk will increase as the likely effect is for the storm intensity and peak fluvial flood flows to increase resulting in higher associated flood levels.

5. Detailed development proposals

5a Please provide details of the development layout, referring to the relevant drawings.
Refer to drawing numbers
MAN0020_90018043_01_01_L1002A
MAN0020_90018043_01_12_L2001A

5b Where appropriate, demonstrate how land-uses most sensitive to flood damage have been placed in areas within the site that are at least risk of flooding.
The most sensitive components, namely the power and control panels, are sited within a control building outside the 1 in 1000 year flood zone. Any electrical components within the screening chamber will be suitably sealed to operate in normal conditions and will therefore automatically be protected against flooding. The external walls to the screening chamber extend above ground level to safeguard against innundation during a flood event.

6. Flood risk management measures

6a. How will the site be protected from flooding, including the potential impacts of climate change, over the development's lifetime?
The site, apart from the access road, will be outside the current 'flood risk' zone by virtue of its design levels. Future climate change may lead to raised flood levels, however, the most vulnerable components are placed above likely water levels and the site is otherwise resilient to flooding. The sewers include screens and other measures to control or collect material that would otherwise be discharged to the river during flood events and the risk of pollution from the sewers

7. Off site impacts

7a How will you ensure that your proposed development and the measures to protect your site from flooding will not increase flood risk elsewhere?
The site occupies a very small proportion of the overall flooded area and is located at the periphery of the area at risk and therefore will have minimal impact on flood risk in other areas. The raising of ground levels locally may cause adjacent woodland area to flood.

7b How will you prevent run-off from the completed development causing an impact elsewhere?
The paved areas will be drained by a gravity drainage system discharging to the sewer network upstream of the proposed screening chamber. The additional flow generated is nominal in comparison to the flow in the system as a whole.

8. Residual risks

8a What flood-related risks will remain after you have implemented the measures to protect the site from flooding?
The main residual risk will be to the operation of the sewer network as areas through which the sewers run will be flooded. This could lead to the flooding of the sewers and the screening chamber, under which condition it will shut down. There is then the risk of sewage escaping from flooded manholes upstream and from the screening chamber. The pollution will be diluted in the comparatively large flood volume.

8b How, and by whom, will these risks be managed over the lifetime of the development?
The facility will be operated and maintained by United Utilities.