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 a control kiosk, below ground pumping station and below ground valve chamber
1b. What is its vulnerability classification? Water compatible development
1c. Is the proposed development consistent with the Local Development Documents? N/A
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, PPS 25), although the ground levels will place the above ground structures (the control kiosk) in Zone 1 The pumping station and valve chamber need to be located adjacent to the existing sewer network which limits the availability of suitable locations and therefor the Sequential Test is over ridden. The application of the Exception Test is not required for 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? Greenfield site - no existing drainage is known. Likely to drain 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? N/A
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.
4. Climate change
4a How is flood risk at the site likely to be affected by climate change? Flood risk is likely to increase - storm intensity and peak fluvial flood flows will increase leading to higher associated flood levels.
5. Detailed development proposals
5a Please provide details of the development layout, referring to the relevant drawings. MAN0385/90018043/00/97/L2008 A MAN0385/90018043/00/97/L2007 B
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 power and control panels are sited within a control building outside the 1 in 1000 year flood zone.

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 will be outside of 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.

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.

7b How will you prevent run-off from the completed development causing an impact elsewhere?
The small amount of site drainage will discharge to the existing sewer network.

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 the operation of the sewer network as areas through which the sewers run will be flooded. This could lead to the flooding of the sewer network. Under these conditions, there is a risk of sewage escaping from flooded manholes. The pollution will however be diluted in the comparitively 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.