

Practical measures to reduce the potential adverse impacts of development

Reasons	Practical measures
Adequate and sustainable surface water drainage.	No surface water connections to the wastewater system. (See part H of the Building Regulations)
Guard against further groundwater infiltration into the foul drains or sewers serving the development.	- The use of fusion jointed MDPE pipes can prevent groundwater infiltration and require a minimum of maintenance. - The use of mass concrete surrounds to inspection chambers and manholes can prevent infiltration and require a minimum of maintenance
Guard against surface floodwaters entering the foul system serving the development.	- Overland surface water flow routes should be provided for flows greater than those for which pipelines and culverts have been designed. - Wherever possible, foul sewer routes, manhole covers, sink waste gullies, etc. should avoid overland surface water flow routes and any areas where surface water ponding may occur. Failing that they should be sealed against potential surface water inflows. - Any sink waste gullies in areas of potential surface water inundation should be sealed or defended by raised brickwork or similar - Bolt down sealed inspection chamber and manholes covers should be used in areas of potential surface water inundation. - Raising the level of the development above the highways which serve it can protect buildings and their drainage systems from potential surface water inundation. However, care should be taken at local low spots in the highway where overland surface water flows may gather and overflow onto properties.
Protect the properties from foul flooding or unusable sanitation should the public sewerage system surcharge.	- Part H of the Building Regulations contains suitable practical measures. However, the provision of an external gully is inappropriate where there is a risk of surface water flooding. In these circumstances, non-return valves are more appropriate. - Dirigo or similar non-return air valves are now commonly fitted to soil vent pipes thereby allowing them to allow them to vent within the building. This practice can lead to problems with bubbling WCs, the blow out of U bend traps and odour within buildings when the sewerage system surcharges. The use of traditional external vent pipes without air valves can prevent this.