

Don Street Dewatering Plan Summary

It has been identified that silty water may arise from dewatering the excavations on the project. Water containing silt shall not be allowed to flow directly into or be discharged into the River Irk.

The Don Street Dewatering Plan shows the proposed Urban Regen system for the capture and discharge of surface water and groundwater via silt traps, sumps/lagoons, pumps, settlement tanks, discharge lines. It also shows intended water monitoring locations at the Don Street Middleton project. Please see attached sketches in Appendix A. It is to be read in conjunction with the Environment A RPS in relation to the discharge of clean water from dewatering to the main river as discussed with Kellen Homes.

It is proposed that a series of V ditch silt Cut-off ditches and earth berms will be provided to prevent surface water from entering the River Irk. It is planned that the groundwater/ silty water shall then be disposed of by discharge to the existing combined sewer which runs from East to West across the site with the prior agreement and consent of the sewerage undertaker. Urban Regen will obtain this agreement through the submission of a temporary discharge consent form to United Utilities

The dewatering plan for the site will have two stages of treatment. The stages of treatment considered are as follows;

- Filtration of water through filter media e.g. check dams / straw bales situated intermittently along a series V ditch silt traps.
- Detention / settlement in settlement lagoons and discharge via a pump and Siltbuster Plant.

Discharge to the sewer will be via a Silt buster type settlement tank with 4" outlet pipework which will be fitted with a turbine meter cold water super dry dial class B PN16 flanged 4 " nominal water meter. Meter readings will be inspected and monitored daily for adherence for applicable flow rates by Urban Regen Site Engineer and recordings logged.

All check dams/straw bales, settlement lagoons and silt buster settlement tanks will be checked at least once weekly via a walkover survey during the full period of the project. All excess silts will be removed and disposed of appropriately. Where check dams have become full blocked with silt, they will be replaced.

The River Irk watercourse will be subject to daily visual inspections by Urban Regen site management recorded on record sheet ENV-08-UR Watercourse Inspection sheet, supplemented with record photos, for retention on site for inspection.

Weather forecast and flood/high wind warnings are monitored daily. Should the site experience adverse weather conditions which require the site to cease operations, the site is to be made safe, and all Plant/Equipment shall be stored/parked in the designated areas indicated on the site TM plan. Until instructed to return to the work area. Sand bags/bunds/grips may need to be installed prior to a potential flood. Advice will be found by contacting Floodline, Telephone: 0345 988 1188 (24-hour service).

Water sampling upstream and downstream at the projects limitations will be conducted by E3P. There will also be sampling conducted at unknown outfalls along the watercourse by E3P / Kellen Homes at frequencies set out by the approved remediation strategy.

The proposed surface water sample locations are designated as Downstream, Mid 1 Mid 2 and Upstream



Further measures will be implemented to minimise potential impacts during earthworks which include:

- prior to pumping from excavations permits to operate pumps will be issued to the pump operator, indicating the point of discharge and all other necessary arrangements
- topsoil/vegetation along watercourses would be retained for as long as possible to aid attenuation and sediment infiltration;
- subsoil would be exposed for a minimum length of time after topsoil strip.
- Temporary Cut-off trenches may be excavated to connect V ditches together to prevent localized surface water run-off into the River Irk.
- Any redundant outfalls identified during V ditch excavation shall be stoppered up to prevent discharge to River Irk.

An incident plan will be put in place and recorded within a Project Environmental Emergency Action Plan.

The plan will identify the following;

- Emergency contacts such as the emergency services, environment agency, waste management and spill management contractors and water companies.
- Site contact names and numbers.
- Site specific restrictions such as working hours, noise restrictions, protected and restricted areas.
- Site plan indicating main features of the site including the location of foul and surface water drainage, waste skips, any sensitive receptors such as watercourse, protected or restricted areas and adjacent properties and also the location of the spill response equipment.
- Record of oils and chemicals stored on site including size, quantity, location, hazard and means of dealing with them.
- A pollution incident flow diagram indicating all the steps to be taken should an incident occur.

All staff and operatives will be briefed on the procedures for dealing with an environmental incident.

Staff will be trained to deal with incidents should an incident occur it will be reported to the appropriate member of staff and will action the Environmental Emergency Action Plan.

All appropriate steps will be taken to contain the incident and deal with the aftermath including notification of all affected parties and preparation of records.

Incidents will be recorded on form Environmental Incident Record, and all incidents will be discussed and recorded in the projects HSEQ meetings.

The following Urban Regen Records will be completed for the Project

UR_HS_Environmental Risk Assessment
UR_ENV_12 Daily water Dust Odour Monitoring records
E05- Project Environmental Emergency Action Plan.
UR_ENV_01 Impacts and Control Measures Schedule Nov 2016
UR_ENV_02 Environmental Monitoring Site inspection Nov 2016
UR_HS_36 Environmental toolbox talks