



Watercourse Maintenance

A watercourse is any natural or artificial channel above or below ground through which water flows, such as a river, brook, beck, ditch, mill stream or culvert.

In order to prevent flooding, it is essential that watercourses are kept in good condition. Maintenance of the bank and bed, as well as any trees and shrubs growing on the banks should be undertaken regularly. Any debris must also be cleared by the owner of the section, even if it did not originate from their land.

Maintenance Activities

The maintenance of watercourses plays a key role in flood risk management. Most watercourses will require annual maintenance. It is important to plan when and how this is done.

Maintaining Open Watercourses (including ditches)

Maintenance programmes for open watercourses should state how much vegetation is required to be cut back to ensure a free-flowing watercourse. Desilting should also be conducted at regular intervals to maintain the capacity of the watercourse.

In summary, the maintenance tasks that should be undertaken on an open watercourse include:

Keeping banks clear

- Anything that can cause an obstruction and increase flood risk either on your land or downstream if it is washed away
- Any waste resulting from maintenance activities should be removed off-site to ensure it does not flow downstream
- Leave a development-free edge on the banks next to a watercourse to allow for easy access

Maintaining vegetation

- Make sure any work done fits with the natural river system and it is important to consider any impact on wildlife when undertaking maintenance activities
- It is recommended to only go up to just above the water level on one side, so leaving the fringe of the bank uncut, maintaining habitat
- Any waste resulting from vegetation maintenance should be removed off-site to ensure it does not flow downstream

Regular de-silting

- The original profile of the watercourse should not be altered when de-silting, so that the overall gradient and flow patterns stay the same
- The same depth of silt should be removed along the length of the ditch

The most suitable time to conduct maintenance activities on open watercourses is late September/October, in preparation for the heavy winter storms and when the vegetation has naturally died back.

Culverted Watercourses

Culverts can collapse and cause the ground above to subside if they are not maintained properly. Water cannot flow through blocked culverts, and may back up and cause flooding above ground. Therefore your maintenance programme should outline when you inspect the culverted watercourse to check for blockages and sign of collapse.

If there is a culvert on your land, you generally own it from where it enters to the point it leaves your land. It is your responsibility to let water flow through your land without obstruction, pollution or diversion affecting the rights of others. This means you must clear a blocked culvert on your land or under your property.

If you think you have a culvert on your land, but do not know where it is or are worried about its condition, you should arrange for a professional company to do a survey.

Culverts generally require specialist machinery to properly maintain them. They can only be accessed through a manhole.

Regular checks of water flows through a manhole by a competent person can give an indication of whether the watercourse is flowing or not. If water is stationary and rising in the manhole this could suggest a blockage downstream in the pipe.

Maintenance

- CCTV inspections of the culvert can identify blockages, levels of silt, root infestations and the structural condition of the culvert. This is best carried out by a specialist contractor.
- Culverts with high levels of silt or blocked with silt will need to be jetted. A specialist vehicle will be required that uses pressurised water to flush out the system and extract the material. This has to be undertaken with care as some systems can be damaged with high pressure jetting.
- Root infestations - A specialist vehicle will be required that has a root cutting facility to remove all the roots in the pipe. Once a pipe has roots entering it, it will need regular root cutting.
- Other blockages and structural damage may require excavation to expose the section requiring repair or unblocking. If this occurs you may want to consider de-culverting the watercourse.
- Sediment traps should be cleared regularly.

Legal Considerations

Under the Land Drainage Act 1991 consent is required from the Sefton Council to build a culvert or structure (such as a weir) or to carry out works in, under, over or within 8 metres of the top of the bank of any ordinary watercourse which may alter or impede the flow of water on any ordinary watercourse, regardless of whether it is culverted or not.

Contact the Flood and Coastal Erosion Risk Management Team on flooding@sefton.gov.uk for more information and application form.