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Kent County Council

Land Drainage Policy

www.kent.gov.uk

1 Introduction

Kent County Council as the Lead Local Flood Authority has powers as a Land Drainage Authority to regulate watercourses in Kent.

Watercourses fulfil many roles in today's environment. They are important features of the landscape, providing habitats for a wide variety of wildlife, drainage for developed and agricultural land, water resources and recreational value. It is therefore important that watercourses and associated habitat are protected and enhanced for the benefit of present and future generations.

This policy sets out how we exercise these land drainage functions.

2 Legislative context

The Flood and Water Management Act 2010 transferred existing powers in the Land Drainage Act 1991 to regulate the proper function of ordinary watercourses to KCC. These powers consist of two parts:

- Maintaining the free flow of land drainage, including the enforcement of riparian responsibility to maintain flow in an ordinary watercourse and to maintain structures in an ordinary watercourse; and
- The power to consent and enforce structures in ordinary watercourses and changes to the alignment of ordinary watercourses.

These are permissive powers, not duties, and KCC can choose to exercise them.

These functions only relate to ordinary watercourses that are outside of Internal Drainage Districts. Within Internal Drainage Districts, it is the responsibility of the Internal Drainage Board to exercise these powers. Similarly, the Environment Agency is responsible for exercising similar powers in relation to main rivers.

Additionally, KCC has a duty as a competent authority under the Conservation Habitats and Species Regulations 2017 to ensure that there is no detriment to habitats and protected species, through the destruction of habitat or vertebrates or from pollution of the watercourse. Similarly, KCC must also consider apply the Water Framework Directive, which aims to prevent further deterioration and protect and enhance the status of aquatic ecosystems and associated wetlands. In order to fulfil these duties KCC this will require evidence, in the form of ecological assessments appropriate to the local habitats, to demonstrate that no ecological harm will result from the works.

3 Riparian rights

Land drainage and the maintenance of flow in ordinary watercourses is the duty of riparian owners. Riparian owners are the owners of the land that a watercourse flows through. If the land on each side of a watercourse is owned by different landowners, they are each riparian owners and are responsible for the watercourse from their side to the middle.

Much of KCC's land drainage role involves providing advice to land owners and neighbours about riparian rights and responsibilities, advising them of whether they need to undertake maintenance, what they need to do with any spoil from maintenance and contacting neighbours on their behalf it they need to undertake maintenance to inform them of their riparian rights.

4 Maintaining flow

KCC has powers undersections 21 and 25 of the Land Drainage Act 1991 (as amended) to enforce riparian owners to maintain the proper flow of ordinary watercourses outside of Internal Drainage Districts.

In KCC's experience, the need to undertake formal enforcement of land drainage is rare. In most cases we are able to work with land owners to achieve the desired works.

Enforcement can only be undertaken where the riparian owner has not undertaken sufficient maintenance to maintain the watercourse in a condition that can freely pass ordinary flow or has placed an obstacle in the watercourse that has not been consented. Enforcement cannot be undertaken to improve the capacity of an ordinary watercourse beyond its ordinary capacity, even if it would reduce flooding.

KCC's powers for enforcement entitle it to undertake works that are believed to be necessary if the riparian owner does not undertake such works themselves within a reasonable time. KCC can recharge any reasonable costs incurred to do this. KCC does not have the power to require a riparian owner to undertake any works themselves.

Enforcement is a complex, lengthy process and is only entered into if all other options are exhausted. Prior to undertaking enforcement, KCC will advise the riparian owners of their riparian duties and recommend that they undertake the necessary work themselves. Enforcement will be undertaken in the following circumstances.

LD Policy 1: Maintaining flow of ordinary watercourses

KCC will undertake enforcement of the maintenance of watercourses where there is an obvious need to prevent significant flooding from the ordinary flow in a watercourse and after the riparian owner has refused to undertake the necessary work themselves within a reasonable timeframe.

5 Land drainage consent

5.1 Consenting works

KCC has powers under Section 23 of the Land Drainage At 1991 to consent works in an ordinary watercourse and to enforce the removal of unconsented works.

Consent is required for any works within the channel of an ordinary watercourse. These works can be permanent features such as culverts and headwalls, and temporary works to block or divert a watercourse to facilitate other activities in the watercourse. If temporary works are required to install a permanent feature, two consents will be required (one for the temporary works and one for the features that will be installed). If there are a number of permanent features to be installed, a consent is required for each feature (they may or may not require separate temporary consents, depending on how the construction works are planned).

KCC will apply the following policy in determining whether to issue a consent for a structure in an ordinary watercourse:

LD Policy 2: Consenting of works in ordinary watercourses

KCC will consent works where all of the following conditions are met:

- A fully complete application is received with the appropriate fee;
- The proposed works are appropriate for the watercourse such that they do not increase the risk of flooding or damage habitats or vertebrates; and
- Appropriate pollution and erosion control measures will be employed

Design and environmental considerations for land drainage consents are provided in Appendix 1.

5.2 Culverts

A culvert is defined as 'a covered channel or pipe which prevents the obstruction of a watercourse or drainage path by an artificial construction' (Flood and Water Management Act 2010). Culverts may be used to convey a watercourse under a road and they have been used to cover significant lengths of watercourse to facilitate urban development over them. It should be noted that a bridge, that is a clear span across a watercourse, is not considered a culvert.

Installing a culvert in an ordinary watercourse requires land drainage consent.

Kent County Council considers it beneficial for watercourses to remain open wherever possible for both flood defence and environmental purposes. This maintains a flood channel and retains a valuable environmental feature which can enhance the site and be easily maintained. Whereas, culverting can exacerbate the risk of flooding, increase maintenance requirements and create difficulty with pollution detection. It also destroys wildlife habitats, damages natural amenity and interrupts the continuity of a watercourse.

In considering any development proposals, our objective is to retain open watercourses with a corridor of open land on both sides. Nevertheless, we understand there may be cases where culverting is unavoidable for example, short lengths for access purposes or where highways cross watercourses. Culverting will not be considered until other options have been thoroughly explored, for example:

- Clear open span bridges with existing banks and bed retained;
- Revision of site layout to incorporate an open watercourse;
- Diversion of the watercourse in an environmentally sympathetic channel and corridor.

Where culverts are unavoidable, KCC will expect them to be restricted to a minimum and to see evidence of the hydraulic and environmental impacts of the culvert on the watercourse, and appropriate mitigation for any negative impacts. Culverts must be designed so they do not cause a restriction to flow. They must not increase the risk of flooding or prevent maintenance of the adjacent open watercourse. Consideration must also be given to overland flow paths in the event of a culvert becoming obstructed. It should be ensured that flows will not affect property or cause unreasonable nuisance or harm.

5.3 Other permissions

The requirement for ordinary watercourse consent is independent of the need for planning permission and the granting of planning permission does not imply or guarantee that consent will be granted.

If planning permission is required it should be sought prior to land drainage consent, as the planning application may alter the site layout and consequently the nature of any ordinary watercourse works. Any consent is for the works specified in the application, including the location, if any of these details change a new consent will need to be sought. Please provide the planning application reference.

Consent is also required for any works within 8m of a Main River or within 15m of a coastal defence structure in accordance with the Environment Agency Byelaws. If land drainage works are proposed within these boundaries, even if they are not to a main river or coastal structure, consent from the Environment Agency will need to be sought separately. The requirement for this can be checked here: https://www.gov.uk/guidance/flood-risk-activities-environmental-permits. This document explains about working alongside a main river: https://www.gov.uk/guidance/flood-risk-activities-environmental-permits#check-if-your-activity-is-regulated

Works either within or which would affect a designated site, for instance a Ramsar site, SPA etc, as a result of changes in flow regimes, or water levels also require the approval of Natural England.

6 Unconsented works

Section 24 of the Land Drainage Act 1991 (as amended) also gives KCC the power to have unconsented works removed. If KCC considers unconsented works in an ordinary watercourse to be detrimental, it will commence enforcement proceedings.

LD Policy 3: Enforcement of unconsented of works in ordinary watercourses

KCC will commence enforcement of unconsented works where the works cause a significant risk of flooding or lead to the significant detriment of aquatic habitats.

There is no provision in the Land Drainage Act 1991 to issue a consent after a structure has been constructed. If the structure is otherwise acceptable and would have been issued a consent, KCC will not request that it is removed, however we cannot issue a consent for these works.

Details of how to apply for consent for works is published on the KCC website:

www.kent.gov.uk/land_drainage_consent

It is advised that anyone considering any works in or near a watercourse contact the relevant authority to discuss the need for consent. KCC also has powers to undertake enforcement of structures that are constructed in a watercourse but have not been given consent. KCC will consult with local risk management authorities about consent applications that we receive or enforcement action we will take for works that do not have consent.

Appendix 1

Design Guidance

Detailed design plans will need to be submitted with your consent application that consider the following:

- The application should demonstrate that they have considered the environmental implications of all options, and preferably settle on the least environmentally damaging option.
- If no other alternative is feasible, any proposed culvert length should be as short as possible and the diameter as large as possible. Depending on local circumstances, Kent County Council expects culverts to have a minimum diameter of 600mm. We would recommend using the Ciria culvert design and operation guide (C689) as a reference.
- All culverts should be designed to safely convey the 1 in 100 year flood event, but with a 20% allowance for climate change, with an additional analysis undertaken to understand flooding implication for greater allowance of 40%
- Where possible designs should incorporate a specified amount of freeboard to allow for floating debris, minor blockage and variations on the 'design' water surface.
- The responsibility for future maintenance and clearance of a culvert must be agreed and details of those responsible submitted with your application for consent. The responsibility for the maintenance of a culvert lies with the landowner or the person who owns the culvert unless otherwise arranged.
- Appropriate inlet and outlet structures should be provided in order to ensure smooth hydraulic transition and avoid erosion. Headwall arrangements at the upstream and downstream ends of a culvert should be suitably keyed into the bed and banks of the watercourse and should be appropriate to the local environment.
- Suitable access arrangements for maintenance should be included in the design. Access chambers must be provided at each change of direction if the culverting is not straight. Other access/inspection chamber should be installed at suitable intervals to ensure suitable access for maintenance.
- Inlet and outlet screens should not be used unless absolutely necessary. An appropriate risk assessment must be submitted with your application to demonstrate when a trash screen is necessary, and a formal maintenance regime must be agreed prior to approval. The FRMRC: Culvert design & operation guide supplementary technical note on understanding blockages can help determine where a screen will be appropriate with the EA Security and Trash Screen Design Guide sets out the current best practice their operation and design.

- Multiple small culvert arrangements are prone to blockage by accumulation of waterborne debris at the inlet. Where multiple culverts are unavoidable, a minimum number of culverts should be used and cutwaters should be provided between pipes at the culvert inlet.

Environmental Considerations

Environmental mitigation measures may be appropriate if any open watercourse is being removed.

- In most situations it is appropriate for the inverts of culverts to be set below the existing bed level to provide a natural bed and passage for invertebrates, whilst allowing for future maintenance.
- The height of the invert should not pose an obstruction to fish movement.
- Environmental enhancements may be necessary to account for the loss of habitat caused by the culvert, for example opening up a length of previously culverted watercourse elsewhere on the site, enhancing other lengths of the watercourse etc.
- KCC will not consent concrete bag-work headwalls within a watercourse, as they are prone to leaking contamination to the watercourse. They also age poorly.