Lockington Conveyance Maintenance Scope 2021 – 2022

The purpose of this document is to outline the regular in-channel maintenance work on Bryan Mills Beck through the village of Lockington, East Yorkshire. The work is undertaken to maintain the conveyance of water in case of high river levels and entails the removal of vegetation from within the channel between SE9924147637 and SE9980546839 (Figure 1).

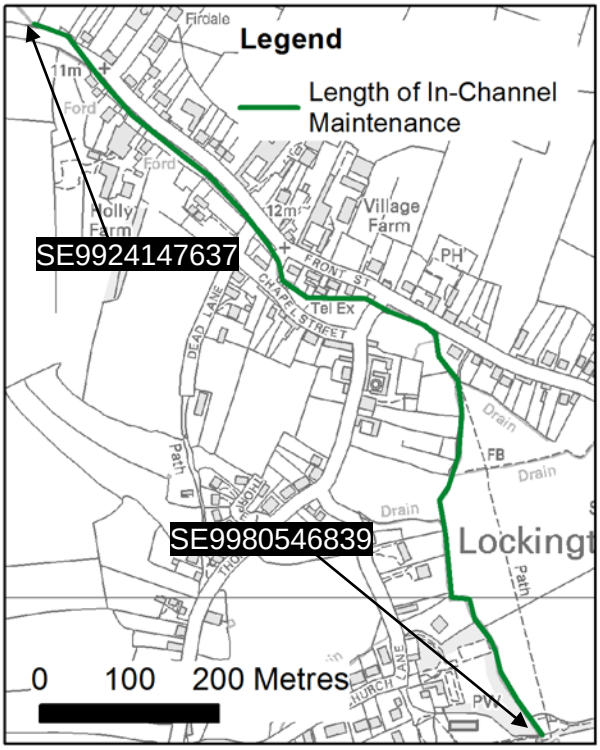

Figure 2: Bryan Mills Beck in Lockington, showing the reach which receives maintenance.

Figure 1: Example of the watercourse after maintenance has been completed. This view is looking downstream from Thorpe Road Bridge.

Maintenance Timing and Activities

This work is undertaken twice a year, firstly during the spring (April / May) and secondly during the autumn (September / October). However, the timing of the maintenance can fluctuate depending on environmental conditions. For example, a period of early season warm weather can create rapid weed growth.

To carry out effective conveyance maintenance, activities may include, but are not limited to, vegetation clearance, obstruction and debris removal, weed spraying (minimal usage), hedge cutting and grass cutting (for access and visibility). Following the maintenance guidance, the channel will look similar to that shown in Figure 2. The standard of both the spring and autumn passes will be the same.

Standard of Work

The standard of this work will create a clear channel in order to ensure the conveyance of water through Lockington, free of vegetation restrictions. This will be achieved through the cutting of vegetation to the base of the plant, whilst ensuring that sediment is not disturbed during the process. A minimum of 80% of channel width should be cut at all locations and will therefore be clear to facilitate conveyance. Cut vegetation will be deposited on both sides of the bank.

At the edge of the banks every 100 to 200m, a margin of aquatic vegetation of approximately 20 m in length is left for wildlife (Figure 3). Along these sections 80% of the channel width is cut as usual (Figure 3 A-B) and 20% of the width of the

channel will be left uncut (Figure 3 C-D). Between these patches 100 - 200 m of clear channel will be cut. These patches are located to avoid more flood risk sensitive locations such as by bridges (Figure 4).

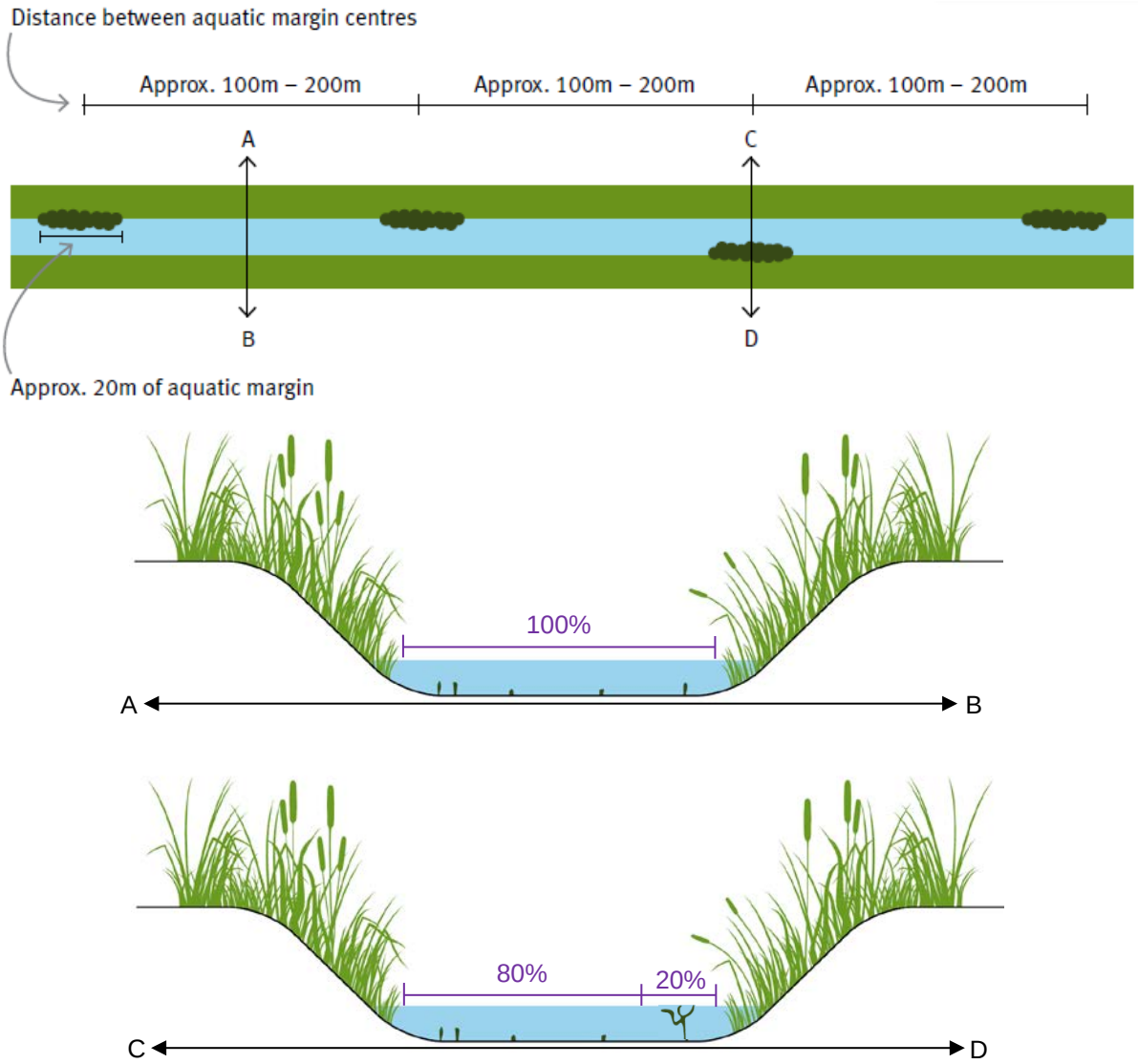

Figure 3: Schematic representation of maintenance standard following the in-channel vegetation cutting. The upper image represents plan view of the channel, showing the cut area (light blue) and the spacing of the aquatic margins. The two cross-sections show: (A-B) the channel where the vegetation is cut to its base across the whole channel width and (C-D) the channel where a small aquatic margin equivalent to 20% of channel width is present. The purple lines highlight the cutting difference between A-B and C-D.

Additional Considerations

Attention should be payed to maintaining conveyance around bridges and other in-channel structures as these locations are particularly sensitive to blockage (Figure 5). Where there are more flood risk sensitive locations (such as bridges) vegetation will be removed if safe for the operatives to do so.

Any vegetation which is hanging into the channel (such as willow or brambles, see Figure 6) should also be removed, creating a canopy that allows the channel to flow unrestricted.

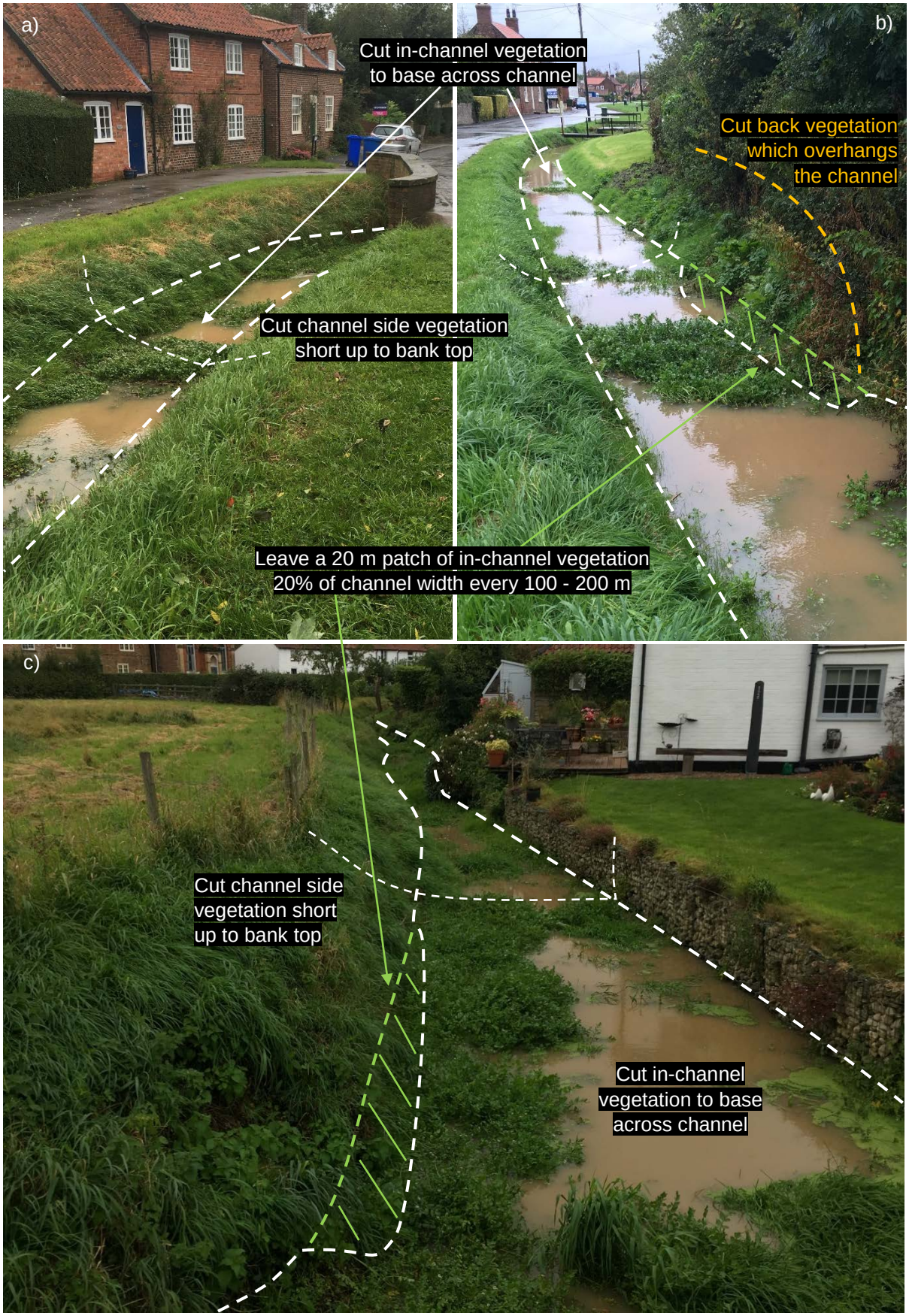

Figure 4: Sections of watercourse through Lockington, annotated to provide an example of what works should be undertaken to follow the maintenance standard outlined in the text. Figure 4a) shows the channel upstream of the Lund Road bridge, b) shows the channel looking downstream from the Lund Road bridge and c) shows the channel looking upstream from the Thorpe Road Bridge.

Figure 5: Special attention should be payed to in-channel structures such as bridges to ensure flow is not restricted around them. These images show examples of vegetation for removal. Operatives will not enter any confined space to achieve this as a part of this work.

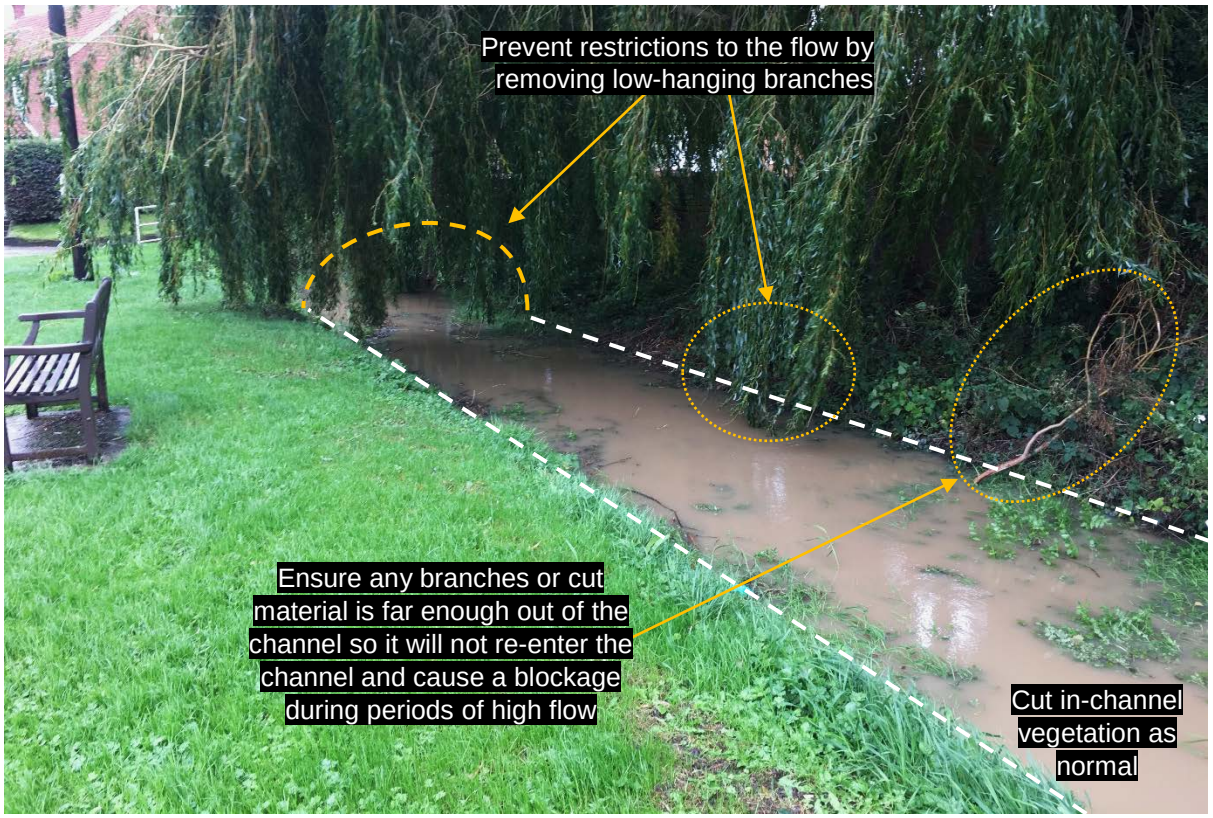

Figure 6: Overhanging branches and channel-side debris are removed to prevent restrictions to the flow of the watercourse. These image shows an example of vegetation for removal.