NatureBid - CPES Measure Specification 5

Westcountry Rivers Trust

Leaky Dams

Leaky (wood) dams placed strategically in water courses will have the following water quality related benefits:

- Reduce the force and flow of water during times of peak rain fall.
- Reduce scouring of banks.
- Give areas for silt to settle out before water progresses downstream.

Other benefits include:

- Allows the normal flow of the water course to progress unhindered.
- Allows fish and other aquatic wildlife to progress up or down the stream unhindered.

Installing Leaky Dams

	Guidance
Where	• Chose an area that can naturally accommodate an area of flood water during times of spate i.e. a natural gully or bowl with an area for water to spread out into
What	• In-channel barriers can be installed in lowland streams and ditches to hold back floodwaters. These barriers are typically whole tree trunks, secured into place above normal stream level, so that under normal weather conditions water flows naturally but, under storm conditions, flood flows are held back • This method of holding back flood waters through in-channel barriers is often called 'large woody dams' or 'leaky dams'. As a result, water is stored within the channel behind the construction, reducing the downstream flood peak by slowing the flow • Leaky dams reduce the force and flow of peak rainfall events by dissipating the waters energy while allowing it to still flow. Leaky dams also reduce the scouring effect on the stream bed and banksides • By interrupting the flow with dams, sediment is encouraged to drop out behind and above any installation. Dams should be installed in a cascade pattern or in a series and not as one structure in isolation • There are a range of different designs of woody dams which are best suited to different types of watercourses
How	• Most ponds or constructed wetlands will require a mechanical excavation • If located in impermeable clay soil, you may need an overflow to allow the water to leave once it is full – consider connectivity to watercourses • Suitable plants can be planted to aid filtration and nutrient capture
When	• Install during the seasons when the soil is dry and trafficable.

Visit **wrt.org.uk** for more information

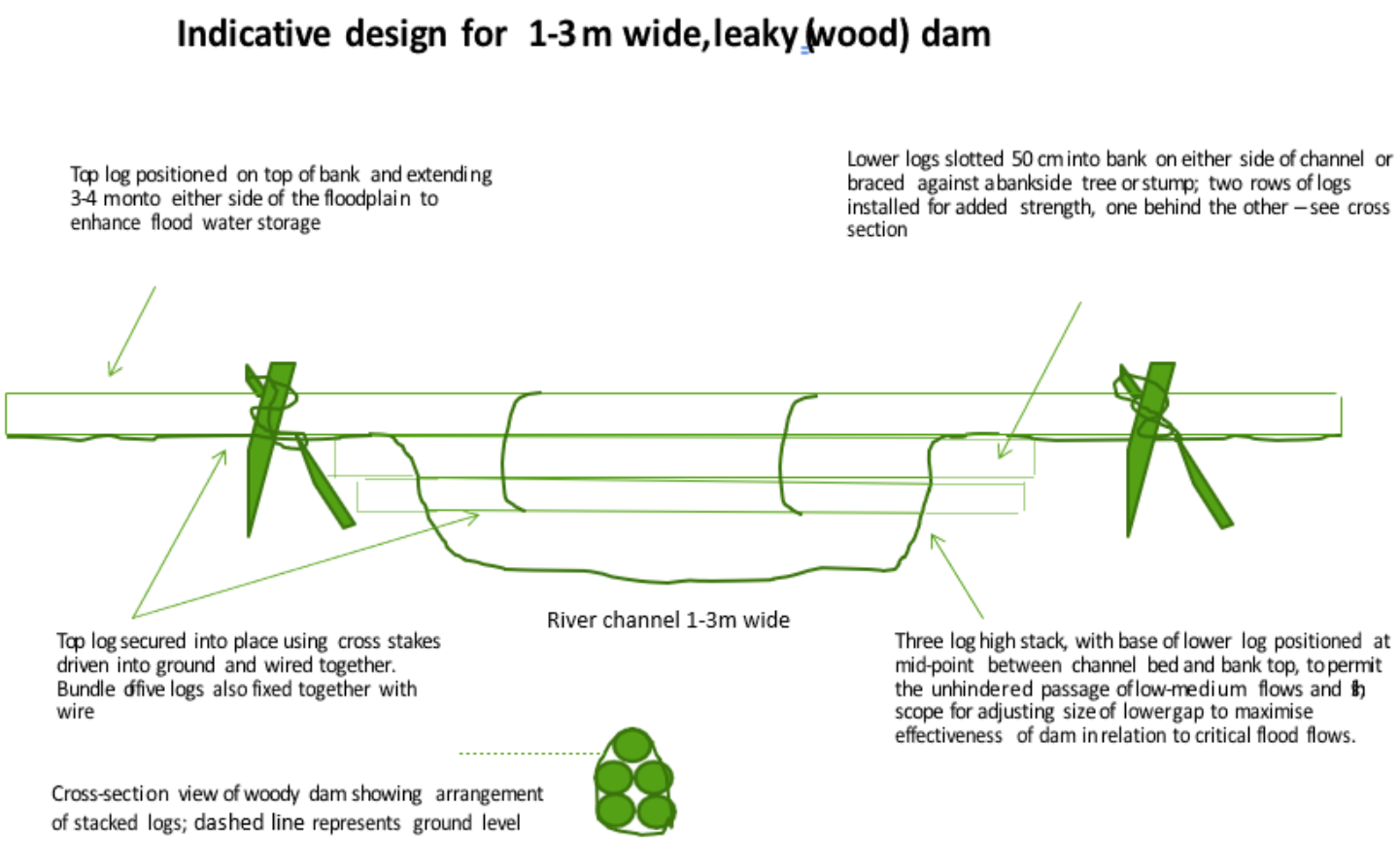
The INTERREG VA France (Channel) England programme is financed through the European Regional Development Fund (ERDF).

Interreg France (Channel Manche) England
Channel Payments for Ecosystem Services
European Regional Development Fund
CPES

NatureBid - CPES Measure Specification 5

Leaky Dams

Westcountry Rivers Trust



Management for Water Quality

Leaky dam installations can discharge into the wider buffer areas from and off the fields, this will allow heavier sediments and debris to fall out, this buffering effect across a wider area, allows water to slow down and filter through the soil naturally reducing water volumes entering water corridors.

By naturally reinforcing, deflecting and interrupting the force and flow of water volumes passing through a water corridor, the damage caused to banksides and the riverbed due to the scouring / stripping effect of mobilised sediments and debris will be reduced. A slower, naturally managed corridor reduces flood risk, while creating new habitats and biodiversity within the corridor and bankside.

Strategic Leaky dams and your farm business

Leaky dams can become an integral part of your land management regime, reducing the flood risk to fields downstream. This may mean fields become slightly more productive and remain drier over the course of the winter. From a social perspective, it demonstrates you are taking steps to mitigate flood risk to down-stream neighbours.

Consents and Licences

It may be necessary to consult with the local flood risk officer within the Council for a Land Drainage Consent (LDC) and the Environment Agency /Natural England whenever conducting works that directly affect a watercourse.

Visit **wrt.org.uk** for more information

The INTERREG VA France (Channel) England programme is financed through the European Regional Development Fund (ERDF).

Interreg France (Channel Manche) England
Channel Payments for Ecosystem Services
European Regional Development Fund
CPES