How can The Trent Rivers Trust help?

The Trent Rivers Trust (TRT) has designed and or delivered NFM schemes in over fifteen small catchments of the Trent across Nottinghamshire, Leicestershire, Derbyshire and Staffordshire. TRT has considerable experience working with policy makers, landowners and flood risk experts to identify the most appropriate places to create NFM features. We are able to deliver an entire NFM scheme from concept to construction. This includes liaison with the landowners, negotiating agreements, surveys, data analysis, design, securing permissions, consents and overseeing contractors as well as following up on the schemes once they have been completed.

Can NFM be monitored?

It is always useful to monitor interventions to ensure they operate as planned. There are a number of techniques available to do this such as time lapse cameras or water level monitors. This gives a detailed assessment of intervention performance but does require specialised equipment and detailed analysis.

TRT has undertaken monitoring of a number of NFM schemes; sometimes working as part of a research project with universities to establish the benefits for flood risk as well as water quality and biodiversity.

There are also options to quantify the wider befits of NFM. Turbidity meters have been used by The Trent Rivers Trust to assess reductions in turbidity as a result of NFM intervention. We are also working with universities to undertake further research into the benefits of NFM though postgraduate dissertations.

Contact us

For more information please don't hesitate to contact us:
enquiries@trentriverstrust.org

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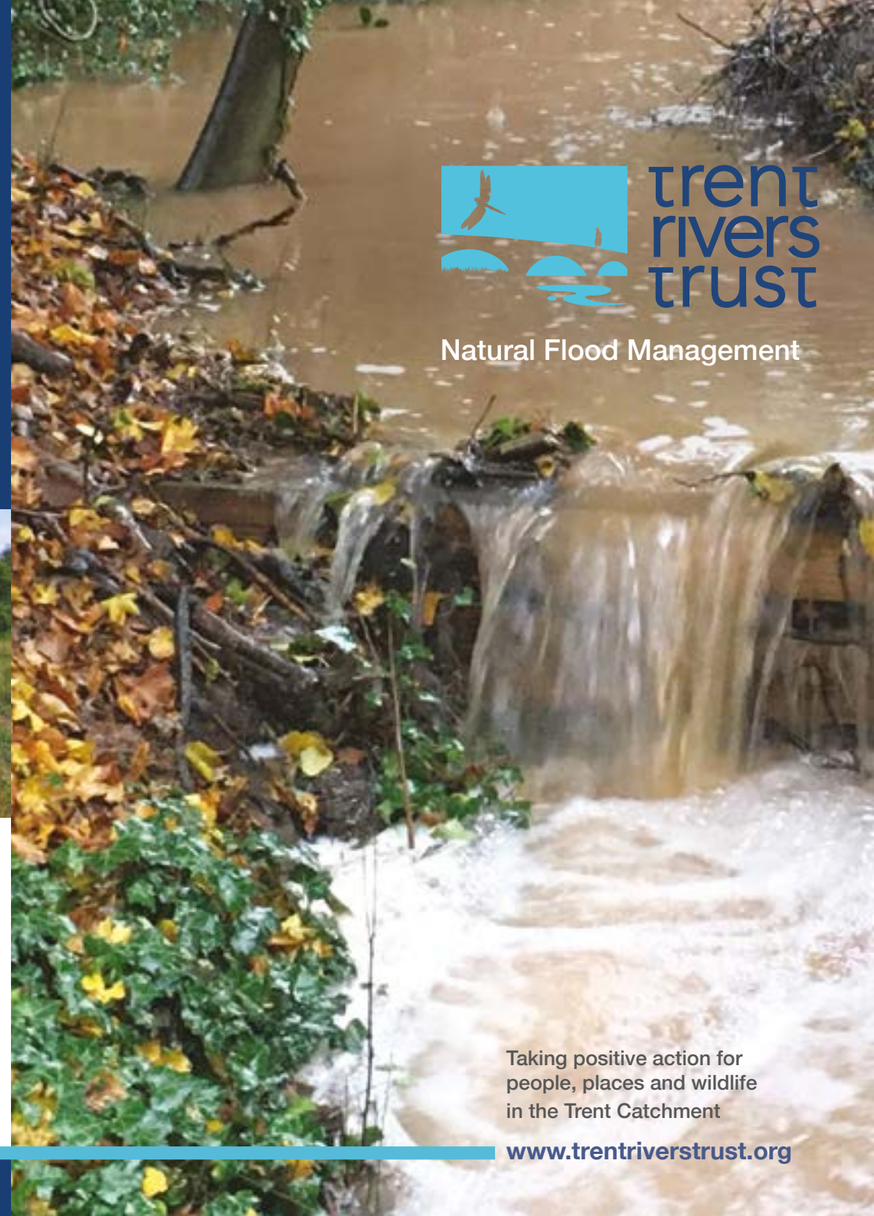

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Natural Flood Management

Taking positive action for people, places and wildlife in the Trent Catchment

www.trentriverstrust.org

What is NFM and how does it work?

NFM seeks to reduce flood risk by holding water in the upper catchment. NFM interventions are designed to store water during high flow events and release it slowly once flood peaks have passed. As a result, the peak flow of the flood is reduced. NFM can be cost effective. It also provides benefits beyond flood risk management such as habitat creation, sediment capture and water quality improvements.

Natural Flood Management (NFM)

This leaflet gives information for engineers, planners, policy makers and landowners on the use of Natural Flood Management (NFM) to reduce flood risk.

As part of an integrated approach, there are a number of ways to reduce the likelihood of properties being flooded. More traditional measures, such as barriers and walls within areas at risk, are commonly used to keep water within the channel. Whilst these measures are often necessary, they are sometimes associated with negative environmental impacts so other methods to reduce flood risk can also be implemented.

Traditional approaches aim to reduce risk at the point of flooding whereas NFM aims to reduce flood risk though intervention in the catchment upstream of the areas at risk. NFM is not a solution to reduce the risk of flooding alone as it needs to be combined with other measures to reduce the risk to properties and other infrastructure.

What types of features are built?

There are many types of NFM interventions:

- Offline storage - areas of floodplain are adapted, often using bunds, to retain overland flow and release it slowly through a controlled outlet.
- Floodplain restoration - linking the river to its floodplain using ponds and wetlands as storage.
- River restoration - reinstating natural processes and re-meandering to slow the flow as well as create storage.
- Leaky barriers - within the watercourse, these attenuate water behind them during high flows and also add roughness to the channel, helping to slow the flow of water downstream.

Land management which promotes infiltration into the soil and interrupting surface water flow paths are also useful. Good soil management, ground cover and the installation of surface features can reduce the amount of water flowing over the land. Tree planting intercepts rainfall and increases evapotranspiration.

How does NFM work for the landowner?

NFM features are generally located in the corner of fields or on wet marginal land that is not productive for agriculture. It is vitally important that the landowner is involved in the development of the scheme from an early stage. NFM works best when the landowner is involved in all aspects of the design and build of each feature as well as discussion of any aftercare that may be required.

What are the additional benefits?

NFM can be designed to create benefits beyond flood risk management. Water quality improvements, biodiversity gains and carbon sequestration can all be achieved through NFM intervention.

If appropriate, NFM can also have amenity benefits when it is installed close to footpaths or public areas. River restoration, for example, can create a more aesthetically-pleasing river which can be enjoyed by local people.