

Enabling community maintenance for local flood risk management

*Briefing note for policy and strategy staff:
enabling and supporting communities in
voluntary maintenance of flood assets*



Courtesy Dighty Connect

Enabling community maintenance for local flood risk management: briefing note for policy and strategy staff

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Abbreviations

CIC	Community Interest Company	MCHLG	Ministry for Communities, Housing and Local Government
DASH	Direct-action self-help	NFM	Natural Flood Management
FCERM	Flood and coastal erosion risk management	NFU	National Farmers Union
FRM	Flood risk management	RMA	Risk management authority
FRMA	Flood risk management authority	SuDS	Sustainable drainage system
IDB	Internal drainage board	TCV	The Conservation Volunteers
LLFA	Lead Local Flood Authority		

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This briefing note sets community maintenance activities of flood risk management (FRM) assets in the context of the relevant policy and regulations. This is to show how it can be an integral part of FRM if managed sensitively. It ‘traces a line’ through relevant policy and regulatory documents making the case for sensitive implementation.

The context of this document is the issue of guidance by CIRIA for community groups wishing to undertake maintenance of FRM assets and for risk management authorities (RMAs) wishing to support them.

Introduction

1

This briefing note discusses the validity of enabling and supporting *“increased or maintained ability of community groups to participate in and have influence over local flood risk maintenance activities.”*

In this briefing, ‘local’ means a geographically small area and in relation to any source of inland flooding, rather than the specific use in the term ‘local flood risk’, which refers to the risk of flooding from defined local sources, including surface water, ground water, ordinary watercourses.

Activities should be led and owned by communities working with and guided by relevant authorities recognising that:

- ◆ Flood action groups/communities are working as volunteers to contribute to risk reduction and/or benefit realisation, alongside the work of landowners and RMAs – known by community groups as flood risk management authorities (FRMAs).

- ◆ The responsibilities of RMAs and landowners remain with those bodies.
- ◆ The guidance documents should be used to help support flood action groups/community volunteers initiating the idea of working alongside RMAs. They should not be used by RMAs to pressurise community groups into carrying out maintenance activities.

This note is aimed at organisations that establish policies or strategies for the management of flood risk assets, for example the Department for Environment, Food and Rural Affairs (Defra), Environment Agency, Lead Local Flood Authorities (LLFAs), internal drainage boards (IDB), and landowners with flood assets (eg National Trust), or local councils (eg district and parish). Also included is the Ministry for Communities, Housing and Local Government (MCHLG) given its role with local authorities.

Definition of community maintenance of FRM assets

2

In this section, community maintenance activities are described, together with the types of assets that are within the scope of these activities. The working definition for community maintenance of FRM assets is:

“Activities by flood action groups or other volunteers affiliated to communities (eg parish, town, village) designed to observe, monitor, maintain or sustain the performance of flood structures, channels and basins.”

This definition covers the following:

1 Activities (...) designed to observe, monitor, maintain or sustain the performance

Flood volunteers take action to reduce the risk of flooding in the community, reduce the impacts of flood events and/or develop and maintain skills (eg through training) in the following ways:

- a Knowledge focused: encompassing activities such as surveying a river in a catchment walkover, checking river gauges, monitoring water quality, pollution monitoring and collecting data as part of a citizen science project.
- b Campaign focused: for example, raising awareness of flooding, taking part in flood planning, educational work with schools and promoting the uptake of local flood warden services.
- c Physical focused: such as embankment maintenance, habitat management, opening and closing sea gates, and clearing drainage ditches and watercourses.
- d Virtual focused: remote monitoring or web-related action, for example documenting the groups' activities and providing information on web pages (O'Brien *et al*, 2014).

Community maintenance is primarily within the 'physical focus' category. However, there may be some activities that also fall into the 'knowledge focus' category (eg observation, monitoring or survey work) or possibly the 'virtual focus' category (eg checking data from remote sensors). In addition, some groups doing community maintenance are or wish to be involved in other types of flood volunteering. Where willing, they may be involved in wider aspects of FRM

such as planning solutions to risk mitigation.

Specific activities excluded from the remit of community maintenance for health and safety reasons are:

- a subsurface and confined space flood management structures, for example culvert clearance, underground storage tanks
- b activities when flood management structures are operating, for example trash screen clearance during storm events
- c activities requiring specialist training or equipment, for example large repairs to embankments major desilting works, reinstatement of pipework
- d lone working activities.

2 Volunteers

Volunteering is an altruistic activity that has the goal of providing “*help to others, a group, an organisation, a cause, or the community at large, without expectation of material reward*” (Musick and Wilson, 2008).

3 Affiliated to communities

Community maintenance into local community structures, eg local council or neighbourhood community group. Community maintenance work is being carried out by a group and for the benefit of the wider community but is also undertaken with reference to and support from the relevant asset owner, rather than individuals acting alone.

4 The performance of flood defences, channels and basins

This refers to the types of assets that are included and is focused on physical assets but excludes, for example, flood warning systems. Within the definition of asset, it includes infrastructure with some component of FRM associated with them.

In this context this is inland FRM assets only and the types of assets envisaged as being included (provided site conditions were deemed to be safe – note that health and safety is addressed in the main guide) would be:

- a stream, river, ditch (any type of watercourse)

- b short runs of pipes and culverts that can be cleared without entering a confined space, for example using rodding devices
- c small trash screen (eg grill covering opening)
 - subject to a risk assessment deeming this acceptable
- d vegetated channel (swale, or shallow grassy channels designed to absorb and convey rainwater) and engineered channels (eg rills)
- e open water storage (eg basin, pond, field corner dedicated to storing flood water)
- f feature designed to help water to soak into the ground (eg soakaway, gravel trench, porous paving) limited to work at surface eg sweeping, weeding
- g raingarden (eg for road or domestic runoff)
- h woody dam
- i surface protection (eg grass/turf) to earthen embankment (if necessary, including small scale level adjustments of embankment fill to make crest levels more uniform)
- j flow control structure (eg weir or orifice)
- k small embankments or overflow structures used within sustainable drainage systems (SuDS)
- l life-saving equipment (ropes, rings etc)
- m fences, gates, signs etc linked to FRM assets
- n road drains (eg surface cleansing of gullies)

The types of assets to be excluded would be:

- a any underground feature (eg culvert) requiring access into a confined space
- b geocellular, modular and tank storage
- c pitched green roofs
- d highways, motorways and A-class trunk road drainage
- e assets close to and/or on railway land/ infrastructure
- f reservoirs
- g coastal defences.



Courtesy Jane Reeve



Courtesy The Green Estate Community Interest Group

C821a Taking action. Reducing the risk of flooding in communities by maintaining drainage, watercourses and defences

C821b Risk management authorities' guide to supporting community maintenance

**Find out
more**

Rationale for community maintenance in the context of climate change and improving flood resilience

3

Awareness of the institutional and social aspects of FRM has greatly increased since 2007 (Pitt, 2008, Twigger-Ross and Colbourne, 2009, Medd *et al*, 2015). Directive 2007/60/EC (the EU Floods Directive 2007) sets a standard of ‘active involvement’ of citizens, together with its inclusion of governance aspects ensuring a focus on engagement and participation in FRM planning and delivery. Also, there has been an ongoing ‘social turn’ (Nye *et al*, 2011, Butler and Pidgeon, 2011) towards FRM approaches that emphasises multi-stakeholder governance and specifically, engaging affected communities. This emphasis is echoed in England’s National Flood and Coastal Erosion Risk Management (FCERM) strategy and roadmap (Environment Agency, 2020, 2022) and Defra’s (2020) policy statement.

Citizens are volunteering in the UK and other countries, working with emergency responders, engaging in planning for adaptation to future floods, as well as engaging with RMAs in the maintenance of flood assets. A body of research has developed alongside, reflecting and systematising these policy and practice changes (eg Newig and Fritsch, 2009, Challies *et al*, 2016, Forrest *et al*, 2019, Twigger-Ross *et al*, 2021, Twigger-Ross and Orr, 2024) together with evidence of community involvement in emergency response and recovery (see Twigger-Ross *et al*, 2016, 2021).

The focus on improving resilience is shifting to a more proactive engagement, one that encourages communities to engage with mitigation and adaptation plans and activity. Certainly, the approach taken by the National Flood Forum is to engage with communities – not only to

develop emergency responses but also to support local collaborative planning to mitigate and adapt to flooding in the long term, which is vital in the context of climate change and increased flooding.

In addition to this strategic rationale, there are practical factors from both the RMAs and the communities as to why this involvement is important. RMAs have limited resources and decisions need to be made about what will be supported. The Environment Agency (2016a) will not continue to maintain certain assets if the costs outweigh the benefits. Community members often form groups to carry out maintenance work because public funding is limited or reduced, acting as a spur to local activity (Simm, 2015, Soetanto *et al*, 2017). However, the key catalyst for activity is when there has been a flood and there is a need to prevent further flooding and increase resilience; this was certainly the case for some groups interviewed for the research into this note. This latter factor is likely to increase interest given the predicted rise in all types of flood risk due to climate change. In addition, many community members understand that there are activities that they can do more easily than the authorities because they are local to the issues. Finally, there are changes in terms of types of FRM approaches that point to greater community involvement. Specifically, increasing numbers of SuDS are being adopted to manage surface water on new development, re-development, and retrofit within the urban fabric. These aim to remove surface water from sewer networks as well as improve the liveability and climate resilience of towns and cities. These systems will create direct links between surface water management systems and local communities.



Mechanisms for community action

4

Communities participate in FRM asset management activities in the following ways (Twigger-Ross *et al*, 2021):

- Members of the public who live in or near a place where flooding occurs, participating through a direct-action self-help (DASH) group, carrying out physical activities such as clearing streams or repairing FCERM measures in co-ordination with or managed by the Environment Agency (Simm, 2015).
- Local communities, landowners and land managers participating in a strategic group as part of a natural flood management project. Their activities involve sharing knowledge, site visits, meetings and practical activities (Short *et al*, 2019).
- Local flood groups working with local councils to develop initiatives to avoid drains and channels becoming blocked, which lead to flooding (Twigger-Ross *et al*, 2015, Warwickshire County Council, 2015).

Most of these examples involved relatively small groups of people living close to the assets that they manage. It is evident that because they work at a very local level (eg a local brook or stretch of watercourse), volunteers are often very invested and motivated in the groups.

In terms of how many groups are currently involved in this activity, a survey carried out for CIRIA in 2022 (see the accompanying main guide) yielded responses from 69 flood volunteers involved in groups carrying out community maintenance of assets in England. 58 (85%) had been carrying out maintenance activities for over 3 years and 21 (30%) had been carrying out activities for over 10 years showing communities' commitment to this work (see CIRIA [C821a](#) and [C821b](#)).

Three approaches are evident from the research:

- Flood maintenance work is carried out along with wildlife conservation and forms part of a charity, looking for grants from different organisations, but largely operating independently.
- Community flood groups come under the auspices of parish councils as sub-groups.
- Community flood groups are not on any formal engagement but act more informally, liaising with authorities as needed.

The CIRIA guidance for communities and RMAs is focused on encouraging groups towards more formalised relationships/organisations. Having clear structures and being part of the wider governance of FRM will enable volunteers to have greater influence and control over their local flood risk issues.



Support for community activities within policy, legislation and guidance

5

To place community maintenance in the context of current policy directions in the UK, key policy and guidance documents were reviewed and are listed in the *Bibliography*. From these documents, there are key points that establish the principle of community maintenance of flood assets.

- 1 At the level of resilience in general, HM Government (2022) sets out a ‘whole of society’ approach to resilience with a focus on communities and support for their engagement in resilience activities.
- 2 The issue of increased involvement of local communities in FRM is one that has been long discussed. Indeed, it was central to The Pitt review (Pitt, 2008), which was published following the widespread and devastating floods of 2007.
- 3 There are references to partnership working involving RMAs and communities across several FRM areas, such as nature-based solutions (Environment Agency, 2020), and strategic plans for the coastline (Environment Agency, 2020). In addition, there are more specific references to communities and partnership working in relation to understanding risks (Environment Agency, 2022), emergency planning (DRDNI, 2016), taking responsibility for flood awareness and preparedness (HM Government, 2019), and becoming more resilient to flooding and its impacts (Welsh Government, 2020, Environment Agency, 2022) across the UK nations.
- 4 There is endorsement of the role of flood volunteers, groups and community flood plans, and general engagement with respect to community resilience within key documents (Defra, 2020, Scottish Government, 2019, Welsh Government, 2020). The FCERM strategy roadmap (Environment Agency, 2022) highlights collaboration between Communities Prepared and the National Flood Forum to enable volunteer flood groups “to grow and take a more active role in managing flood and coastal resilience in their local communities” (Environment Agency, 2022), and between the Environment Agency, National Farmers Union (NFU) and farmers to “enhance flood resilience in rural areas” (Environment Agency, 2022). The UK approach to community resilience in general has focused on the role of communities in preparing for, responding to, and recovering from emergencies (HM Government, 2019). However, the definition has a second part, which sets community action in a wider context:
“Community resilience is enabled when the public are empowered to harness local resources and expertise to help themselves and their communities to (...) plan and



adapt to long term social and environmental changes to ensure their future prosperity and resilience.”

Further, the ‘prepare’ phase of the FRM cycle (HM Government, 2019) mentions the role of communities in mitigation activities including altering the physical environment to mitigate risk. Within ‘mitigation’ maintenance of assets is as much an activity for local flood volunteers as developing community flood plans.

- 5 Where there is a specific focus on maintenance of assets, there is a direct reference (Environment Agency, 2016b) on the UK Government website in relation to what happens when maintenance is stopped:

“Managing risk when an asset is no longer maintained...

You can discuss your flood risk management options with the Environment Agency. These could include....

Setting up a community partnership or neighbourly arrangement with others who benefit from it”

There is the suggested option to develop a community group to carry out maintenance of an asset that is no longer maintained by the Environment Agency. Further, within the English FCERM strategy there is reference to an example of setting up a Community Interest Company (CIC) to raise funds to maintain the coastal defences along the wash (Environment Agency, 2020). Although the focus of the community maintenance activity is on coastal defences, this reference does provide evidence of types of formalised structures that could develop around this type of activity. Within Northern Ireland’s long-term water strategy, while there is no direct reference to community maintenance there is mention of managing *“future costs through innovative management of assets and infrastructure”* (DRDNI, 2016), which provides a possible space for community maintenance.

Overall, there are both societal and policy aims that support community maintenance activities in asset management in partnership with RMAs and other relevant asset owners. This supports a proactive, transformative approach in resilience to flooding, which is becoming ever more important due to climate change.



Courtesy Dighty Connect



Courtesy National Flood Forum

Opportunities for communities to contribute to FRM asset maintenance

6

Community activities will normally be proposed in relation to specific local flood assets likely to be owned by a RMA (ie Environment Agency, LLFA, District Council, IDB, water and sewerage company). However, there may be scenarios where maintenance obligations have been devolved to other organisations. Any obligations must then also be distinguished from maintenance work carried out by riparian owners. A riparian owner is someone who owns land alongside a watercourse, where a watercourse is defined as every river, stream, brook, ditch, drain, culvert, pipe and any other passage through which water may flow. A watercourse can be either natural or man-made. Watercourses drain the land, prevent flooding and assist in supporting flora and fauna (Surrey County Council, riparian ownership, FAQs etc).

It is not anticipated that community groups will be carrying out maintenance work for riparian owners, given that it is their responsibility, unless the owner is unable to carry out the maintenance or it is too complicated for one person to manage (and the owner fully authorises the supporting activities). The focus of any community action should always be to carry out maintenance activities for the wider benefit of the people in that local area, rather than a specific owner or operator.

The circumstances under which communities carry out maintenance of local flood assets will vary but will include when RMAs have withdrawn maintenance or where there is an orphaned asset. Orphaned assets are those assets where the ownership is not known and no responsibility for maintenance assumed. This is a situation where community groups have, and may continue to, step in to ensure that the asset carries on functioning as intended (subject to legal advice on the implications of carrying out that action).

To ensure that communities can act effectively within the owner/operator environment, the roles and lines of responsibility for community groups wishing to undertake maintenance need to be set out clearly and unambiguously. There would need to be formalisation of the relationship between the relevant RMA and community group, for example via a memorandum of understanding or terms of reference, for the proposed community activities.



Courtesy National Flood Forum

Liabilities and insurances

7

A key concern for both RMAs and community groups is that of the legal liability for:

- ♦ damage that might occur directly because of a maintenance activity
- ♦ personal injury suffered by members of the community group involved in the activity
- ♦ flooding resulting from maintenance activity ceasing or being carried out incorrectly.

It should be noted that there is no information on these aspects within current policy or guidance. Whether or not a community group is prepared to or should undertake activities without insurance is likely to depend on the types of activities being considered.

Some groups do get insurance that covers them for certain activities in case of accidents. Some have been able to be insured under a scheme made available through The Conservation Volunteers (TCV) (Simm, 2015, CIRIA research). The groups may obtain their own insurance, or they may be covered by parish council insurance as a sub-group. This insurance tends to be limited to use of hand-held tools, as was recommended by an interviewee from the 2022 survey, which is a sensible limit for volunteers

involved in community groups. Where there was a need for larger equipment, for example chainsaws, the group engaged local people who were qualified and insured to use those tools.

Several insurance companies offer not-for-profit insurance for community groups and charities – but the extent to which these would cover both personal and public liability for the types of activity relevant for FRM asset maintenance has not been established. The process for resolution of any potential disputes also requires clarification.

Groups should also carry out risk assessments of their activities and these should be regularly reviewed and cover risks such as drowning, hyperthermia, sun stroke, dehydration, cuts and scratches, infection from contact with soil or contaminated water, tetanus, and ill health due to ingestion of contaminated water or organisms etc.

More detailed guidance for RMAs wanting to support community maintenance of FRM assets and communities wanting to undergo maintenance activities can be found in **C821a** and **C821b**.

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