

Commonly asked questions

Irwell Vale, Strongstry and Chatterton Flood Risk Management Scheme (FRMS)

The Irwell Vale, Strongstry and Chatterton FRMS has been going through its appraisal in line with government guidance leading up to Outline Business Case (OBC) submission. Unfortunately, due to a significant gap of c.£9m in available funding, a decision has been made to halt the scheme. The Environment Agency and its partners understand this is extremely disappointing to all those involved in the scheme and in particular, the local residents of all three communities.

This document has been drafted to capture questions that have been previously asked related to the scheme and questions we anticipate being asked by the local community following the communication that the scheme will be halted. In addition, we have added responses to the questions raised at the community drop-in session held in October 2023; these can be found at the end of the document. A collective response to each question has been provided from the Environment Agency working in collaboration with other Risk Management Authorities including Lancashire County Council, Rossendale Borough Council and United Utilities.

1. Question: Why has it taken so long to get to this stage?

Answer:

The scheme has been progressing through its appraisal process investigating a long list of options, evaluating these options and identifying a leading option. The design of the leading option of 'linear defences' was then developed by carrying out numerous surveys and site investigations which helped the project team understand site constraints such as ground conditions and environmental considerations. These then informed the development of the Outline Design.

The strict government guidelines on appraising a flood scheme means all the activities above need to be carried out in order to justify spending public money and that we can demonstrate value for money. This process takes considerable time, and this has been exacerbated recently due to the known challenge of a significant funding gap for the leading option, meaning the project would not proceed beyond its business case.

Given this, the team revisited the long list of options with the survey information now captured to determine whether an alternative (more affordable) solution was viable. Unfortunately, this exercise concluded no alternative option would provide the reduced flood risk to your communities and attract sufficient funding. Please see below a link to further information on funding for the scheme on 'The Flood Hub' website:

<https://thefloodhub.co.uk/irwell-vale-strongstry-and-chatterton/>

2. Question: Why have the scheme costs gone up so much?

Answer:

Following the completion of the Outline Design, a detailed cost and benchmarking review was carried out in 2022. This resulted in the approximate estimated scheme cost of £23m.

This increased cost was mainly driven by increased inflation on construction costs, increased costs for temporary works and the need to add two flood storage areas (proposed in Chatterton) to mitigate for pass forward flow of the river Irwell downstream due the proposed construction of linear defences in Irwell Vale.

All three communities have challenges and constraints which directly increase the estimated costs of construction and mitigation to any environmental impacts. Examples of these include limited construction access, significant number of mature trees, listed buildings and the need to provide Biodiversity Net Gain (BNG). Additionally, the scheme involved tall linear defences proposed on the river edge due to insufficient space elsewhere and included flood gates which have a high cost.

The scheme proposed a combination of flood embankments and flood walls which are most suited for the area and provide the best economic option (chance of flooding less than 2% per year). However, these types of defences have a significant construction cost given the above constraints.

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3. Question: Why can't the scheme get more central government funding?

Answer:

The central government funding for a scheme like this is 'Grant in Aid' (GiA). This type of funding is based on payments for outcomes on the number of properties whereby the flood risk is reduced due to the scheme i.e. the property is moved from a very high risk to a high or medium risk. In order to gain more GiA, the scheme would need to deliver greater outcomes, which is not anticipated for this project, as these are largely related to the number of properties within the communities. Additionally, GiA per property 'better protected' is capped based on regional averages, which limits the amount granted.

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4. Question: Have you explored other funding sources?

Answer:

Yes, we have explored all available government and local authority funding. Unfortunately, the funding confirmed to date is the maximum we have been able to source which still leaves a £9m funding gap.

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5. Question: Have you explored cheaper options?

Answer:

Yes, we have explored cheaper options, but they do not provide the benefits in order to attract government funding.

As part of the appraisal process, the project team evaluated a long list of options which covered options from 'do nothing', to upstream storage, to hard linear defences. During this evaluation, the costs of each option were appraised and this formed part of the evaluation in determining the most appropriate leading option to proceed with. Following the development of the leading option and the understanding that costs were escalating, the project team re-evaluated the long list to ensure a thorough review factoring in the additional survey information gained to date and to seek a more affordable option. Unfortunately, an alternative option (more affordable) which provided similar protection and attracted sufficient funding as noted above, was not possible.

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6. Question: Can the funding gained so far be used to deliver smaller scale works across the communities?

Answer:

Smaller scale works across the communities are not possible under the current scheme and in line with government appraisal guidance as they would not offer sufficient impact to reducing the flood risk and thus provide enough benefits. This would in turn not attract sufficient funding. Doing small scale works is always a challenge for securing funding if there is no direct demonstratable/quantifiable benefit to the flood risk in the area.

We are looking at wider catchment-based solutions which could benefit the communities of which this funding could be bid for.

Additionally, doing isolated smaller scale works can have a negative impact to the properties/communities downstream. For example, building a wall along the riverbank in one area can mean that water is 'funnelled' downstream in a high water flow event and we cannot make the flood risk downstream worse and hence, need to review these scenarios holistically.

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7. Will the scheme be restarted in the future when more funding becomes available?

Answer:

Should more funding become available, the Environment Agency would consider continuing the scheme. This decision would be based on a number of factors including available funding, any change to government appraisal guidance and other flood mitigation works being conducted that could be impacting the area. All the work done to date such as design and surveys could be used to progress the scheme and would not be abortive works.

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8. Question: how will the Water Management Strategy decrease flood risk and how else can NFM be delivered?

Answer:

This Strategy will include a wide review of Nature Based Solutions/ Natural Flood Management (NFM) across the catchment to reduce the flood risk to your communities. It will identify opportunities to use a variety of techniques such as moorland restoration, tree planting and leaky dams. These techniques reduce the flood risk to downstream communities by slowing the flow of water through the catchment by reducing run off and increasing the ability of catchments to hold water. This can help reduce river peak flows.

NFM was reviewed as an option under the Long List but discounted at the time as it was unlikely to provide the standard of protection linear defences within your communities would offer and was deemed affordable at that time. Given the cost estimate escalations of the project for constructing linear defences, a combination of NFM measures as part of the Water Management Strategy is deemed the most appropriate alternative option to reduce water levels.

For more information on NFM, please visit:

<https://thefloodhub.co.uk/nfm/>

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9. Question: What Natural Flood Management (NFM) measures have been introduced in the catchment to date?

Answer:

NFM has been previously carried out in the upper Irwell catchment. It consisted of the Environment Agency working with Moors for the Future and the National Trust to carry out moorland restoration on Holcombe Moor and 'slow the flow' measures on Buckden Brook, Strongstry. This work was completed in March 2021 and will help slow the flow of flood water in rapidly responding catchments.

There are ongoing conversations on other NFM opportunities in the areas between the Environment Agency and other Risk Management Authorities.

Images from the NFM measures in 2021:



<https://www.moorsforthefuture.org.uk/our-work/our-projects/moor-carbon/restoring-holcombe-moor>

10. Question: Have you explored providing 'Property Flood Resilience' (PFR)

Answer:

Some historic PFR was carried out to several properties across the three communities. Examples of these are on properties on Bowker Street in Irwell Vale where the properties have flood gates/barriers installed to their front doors and some air vents and non-return valves to the properties in Meadow Park. These were installed under the old 'Property Level Protection'.

A larger scale PFR has been explored as part of this scheme and was discounted during the long list evaluation. The main reason for discounting the PFR option was linked to the flood water depths. Typically, the resistance measures (such as flood gates/barriers, smart air bricks) of PFR are only suitable up to a flood depth of 600mm. In Irwell Vale, more than a third of properties potentially flood to a depth greater than 750mm in a '1 in 50' chance of flooding event and more than half the properties in a '1 in 20' chance flood event. With the rapid response of the river Irwell to rainfall, this would leave homeowners with limited time to install such measures. These flood depths mean that PFR measures are unlikely to be suitable for Irwell Vale and Strongstry.

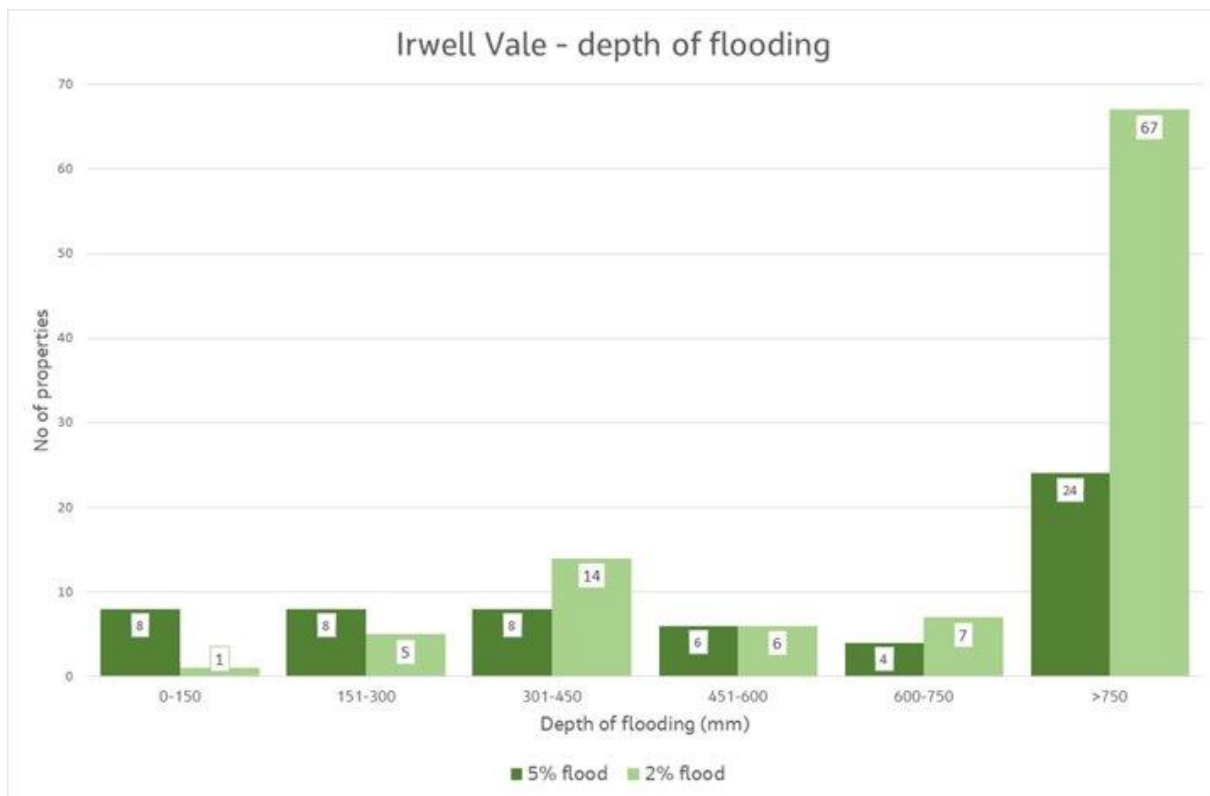
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Please see graph below illustrating the number of properties versus the potential water depths:



11. Question: What does this mean for Lumb Bridge?

Answer:

Lumb Bridge is a Grade 2 listed structure. As part of the scheme, it was proposed works would be undertaken to Lumb Bridge. These works would have been confirmed during the detailed design stage and could have entailed strengthening works, replacement of the parapets or a full bridge replacement (last resort). Given the scheme is not progressing, no works are proposed to the bridge. Currently, we cannot expect there to be any works to the bridge in the future as it is privately owned with no known owner.

There is a Public Right of Way over the bridge. This is an historic legal right for members of the public to access the bridge, and the county council will oversee the safety of the walking surface and availability of the route. That being said, in the same way that the county council doesn't own fields that are crossed by Public Rights of Way, it doesn't own the bridge and has no obligation to repair or maintain it, meaning that it has no funds to do so.

If the bridge were ever to fail in the future, the county council would work with Rossendale Borough Council to make the approaches safe, including diverting the Public Right of Way and finding an alternative means of access to homes at Lumb.

12. Question: What is the plan with the existing embankment located on private land in Strongstry and does the embankment currently provide any increased flood protection?

The embankment located on private land in Strongstry was built in 2017 - 2018, with the intention of the embankment forming part of the linear defence line due to be constructed in the following years as part of the Irwell Vale, Strongstry and Chatterton scheme. As the main flood risk benefit provided by the embankment is reliant on its downstream tie-in to those proposed linear defences to be completed as part of the scheme, which has now been halted, we are currently investigating options with regards to the future of this embankment and the flood risk benefit it currently provides.

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13. Question: What is the plan with the embankment in the recreation ground in Chatterton as it does not appear this is maintained?

The embankment located within the Chatterton recreation ground is an Environment Agency maintained embankment which provides a flood risk benefit to the surrounding area by storing water on the recreation ground during high flows. As such our maintenance for this embankment will continue. Works do get moved around and prioritised based on resources and incident response throughout the year, which can sometime lead to timescales for maintenance changing.

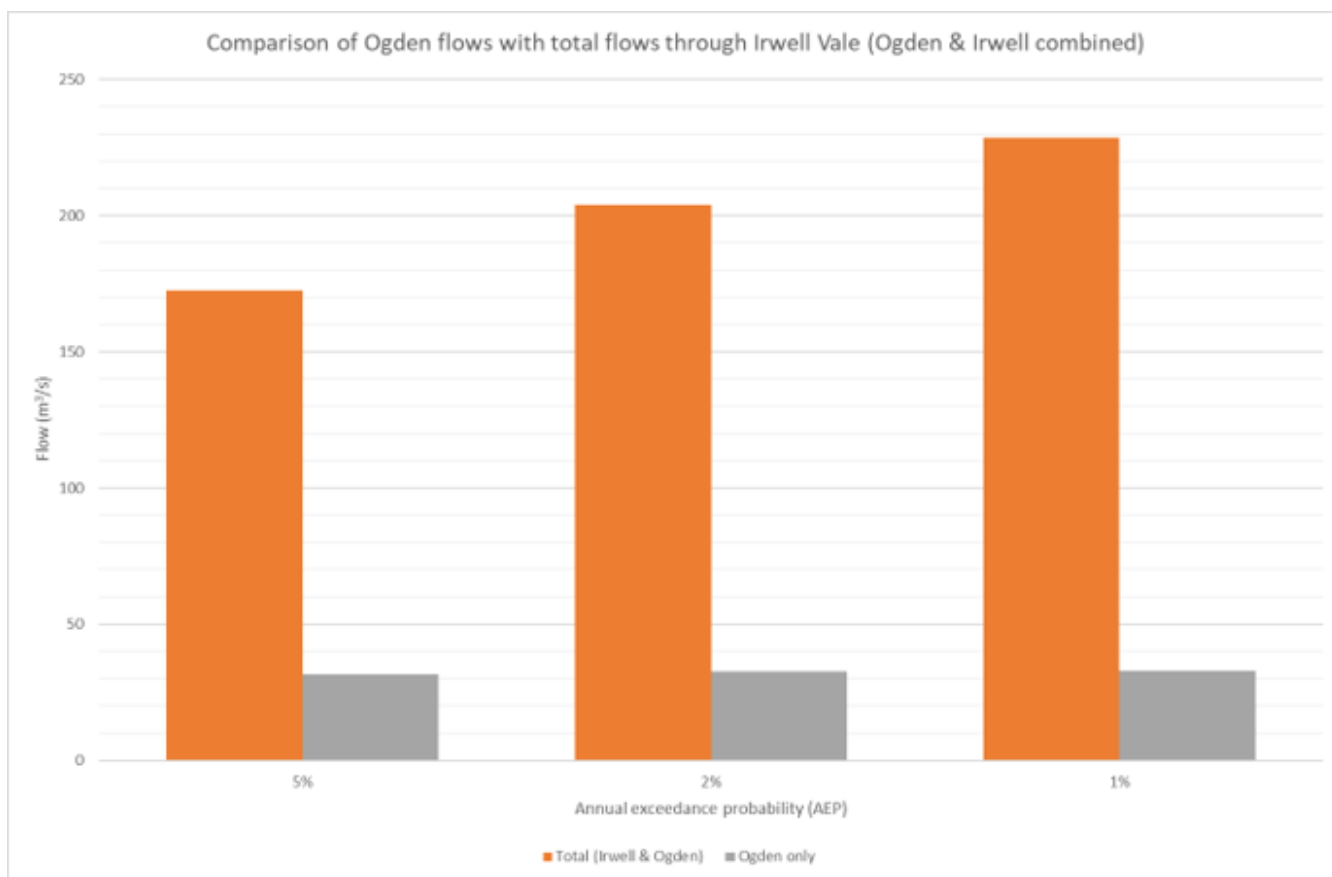
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14. Are there any options with the Haslingden Grane reservoirs and can the release of water be controlled/managed seasonally?

Answer:

These reservoirs are located on the River Ogden. Flood levels from the Ogden-Irwell confluence up to Ogden Bridge are almost entirely controlled by levels in the Irwell, not flows from the Ogden. Therefore, the Ogden flows have a negligible impact to the flow down the River Irwell and subsequent flood risk.

This can be seen on the graph below and significant work to the reservoirs would not provide the amount of benefit required given the significant contribution the River Irwell has on the water flows to the communities.



In terms of greater detail on the reservoirs and their operation:

The Haslingden Grane reservoirs lie in the Grane Valley, in Rossendale. These reservoirs are used for the public water supply to Rossendale, Ramsbottom, Bury, and surrounding communities. There are three reservoirs in the valley, which are (from upstream to downstream):

Calf Hey (built 1859), Ogden (built 1912) and Holden Wood (built 1841).

United Utilities extract up to 33 million litres of drinking water from this group of three reservoirs every day. Water from the reservoirs is treated at the adjacent Haslingden Grane water treatment works. These reservoirs are a vitally important part of the local water supply system. Each reservoir is formed by a dam (a water-tight wall) built across Grane Valley. Musbury Brook, and other un-named streams, flow into the valley. The inflowing brook will fill up the space behind the dam wall in the top reservoir. When the reservoir is full, water flows over an engineered spillway, and continues down the valley - this is the manner of operation of every impounding reservoir.

When Calf Hey is full, water flows over the spillway and begins to fill Ogden, when Ogden is full water will flow over the spillway and begin to fill Holden Wood. When Holden Wood is full, water flows over the spillway and then resumes the natural course of Musbury Brook.

There is no mechanism to control the rate of flow when the reservoir is full and spilling. No reservoir is able to control the flow of water over the spillway, as this flow is the natural flow of Musbury Brook. That flow will find a way to continue down the valley.

United Utilities plan to continue to use these reservoirs to supply drinking water to homes and businesses in the surrounding area. There are no plans to change the operation of these reservoirs in the foreseeable future. The continued use of these reservoirs for water supply is reflected in the United

Utilities published Water Resources Management Plan (a document which every water company must publish, setting out its plans for how it will continue to supply water to customers in future, whilst protecting the environment).

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15. Question: Have you considered building dams / flood storage upstream?

Answer:

During our options appraisal process, the viability of upstream flood storage was assessed. To provide the same standard of protection as the 'linear defences', the flood storage capacity was estimated to require over 1 million cubic meters of water storage. This is the equivalent to 400 Olympic sized swimming pools. An option to store this much water at a single location is not feasible based on the suitable upstream land, therefore multiple storage areas would be required which would be significantly more costly than the £23m noted for this scheme. Such expense is required due to the need to construct spillways, large impounding structures and ensuring the storage area is compliant with the reservoirs act.

This increase in cost would result in the 'benefit cost ratio' of the scheme being too low and the project would not gain approval to proceed.

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16. Question: Have you looked at the third arch on Lumb Bridge?

Answer:

We carried out a study into various options related to a separate passage of water flow at Lumb Bridge. These options included an additional culvert, two additional culverts and opening up the third arch. The maximum benefit of one of these options was estimated to be 170mm reduction in river water levels directly upstream of Lumb Bridge during a flood. This is a small reduction and would provide little benefit in comparison to the cost associated with any of the options. Given this, the inclusion of one of these options at Lumb Bridge was discounted.

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17. Surface Water

Question: Will the housing development in Edenfield exacerbate the flooding?

Answer: All new housing developments are legally required not to increase flood risk at other locations. The Developer has to undertake a flood risk assessment to demonstrate that the works will not increase flood risks, and to submit this work as part of the planning application. The planning authority (Rossendale Borough Council) must then consult the Lead Local Flood Authority (LLFA) on the surface water flood risks associated with the proposed development, and the LLFA must advise the planning authority on the surface water flood risks and also on the suitability of the Developer's proposed management measures to manage these risks sustainably and reliably. Provided the LLFA's advice is taken into account in any planning permission given, and the drainage systems are built and maintained in accordance with the permission details, then the new developments in Edenfield will not increase flood risk at Irwell Vale, Strongstry or Chatterton.

The same restrictions apply to any new major development in England (10 homes or more, or the equivalent scale of commercial development), meaning that currently unknown future developments in the Upper Irwell catchment will be managed equally responsibly.

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18. Question: Could the scheme be split into the three separate communities and works phased?

Answer:

This has been investigated but unfortunately, we would end up with three separate schemes that are under funded and likely not deliverable. This is because most of the funding is based on the economic benefits that the scheme provides as a whole and by splitting up the scheme, the benefits would reduce based on the number of properties that benefit from additional protection.

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19. Question: What are the next steps?

Answer: The Environment Agency will be progressing with the development of the Water Management Strategy. This will involve liaison with yourselves as the community and landowners within the catchment to seek opportunities for NFM. NFM potentially allows different funding opportunities to be explored and this will be pursued.

Updates will be provided via Newsletters, social media, Flood hub website and drop-in sessions arranged when key updates are to be shared with yourselves.

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20. Question: Where can I get more information on the project?

Answer:

The Floodhub is the best place to gain information on the project. Please visit <https://thefloodhub.co.uk/irwell-vale-strongstry-and-chatterton/>

If you have any specific questions on the scheme, please contact the Environment Agency via email or letter/post using the below addresses.

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Questions Raised at the Drop-in Meeting in October 2023

Location	Query	Lead – Action	Outcome/date complete
Chatterton	Highways gullies are blocked. Are these gullies on a maintenance schedule and is this a hotspot area where gullies are cleaned more regularly?	Response from Lancashire County Council	The highway gullies on Chatterton Road were cleaned and refreshed as part of the resurfacing project early in 2023. They will receive a scheduled maintenance visit one every 2 years, or more frequently if defects are reported through the Love Clean Streets app or by telephone during working hours to tel. 0300-123-6780. Those on Mount Street and Chatterton Old Road are not scheduled to have regular visits and will only be attended to when LCC Highways receives a report of a problem through the Love Clean Streets app or by telephone during working hours to tel. 0300-123-6780.
Strongstry	Highway drainage – what is the commitment from Lancashire County Council regarding maintenance clearance of drains, in times of rain gullies susceptible to silting up and surcharging?	Response from Lancashire County Council	Some gullies are routinely visited once every 6, 12 or 24 months subject to local risks. Others are only visited when LCC Highways receives a report of a problem through the Love Clean Streets app or by telephone during working hours to tel. 0300-123-6780.
Chatterton	There appears to be Knotweed on the embankment within Chatterton Park.	EA Operations.	<p>For the embankments, the EA field team cut them once annually, September onwards as we are required to do this after bird nesting season, however we cannot guarantee an exact time as this depends on staff and resources. For one of the embankments at Strongstry we will also try to attend in the first quarter of the financial year, but this is purely to manage the balsam, it is not a grass cut and will be undertaken on a best endeavours basis depending on the rest of the large programme of asset maintenance works across the Greater Manchester area. It is currently being carried out as planned.</p> <p>As for the Japanese Knotweed spraying, the EA have spot spraying programmed in quarter 1 & quarter 2 of the financial year's maintenance programme, however with Invasive Non-Native Species spraying, it is very much weather dependent so we need it to be dry so the herbicide doesn't wash away, therefore with a wet summer this can be difficult but we will always to our best to complete the programmed works.</p>

Strongstry	There are trees being felled near the Mill Site in Strongstry and Stubbins. This goes against NFM and behind the Mill ground appears to be getting destabilised.	Rossendale Borough Council	The trees are on private land and outside of the Conservation Area. Unfortunately, the EA nor Rossendale Borough Council have the powers to enforce anything.
Irwell Vale	The space under the flyover north of Irwell vale looks massive and could be used as flood storage area is this possible	EA Project Team.	<p>This space was assessed for suitability for flood storage as part of the flood scheme appraisal process. It is estimated it could hold approx. 43,500m³ which is 5% of water storage require to mitigate for Dec 2015 flood. The cost to construct a storage area (that would be classed as a reservoir and come with all the reservoir acts constraints) is not economically viable for the benefit provided.</p> <p>Following the community drop-in, a bid has been submitted to the 'NFM £25m government fund' to seek whether any funds are available to progress NFM in this specific area. A decision by the government is expected by end of January 2024. NFM here would have a lesser impact in reducing flood risk but also lower cost, than a formal storage area. The feedback from the community drop-in was to progress with NFM wherever possible upstream, as any reduction in flood level (however small) would be welcomed. It is hoped that over time as more NFM sites become developed, the community will see a reduction in flood risk due to the cumulative impact.</p>
Irwell Vale	Lumb Bridge – needs further investigation if this was removed or clear span bridge would improve flood risk to meadow park. Woodcox solicitors currently selling bridge and roads at meadow park – if we need to know landowner as this has been queried before UU- Are bunding there site to keep black water (sewer) separate and then over pumping back to the river, can we	EA Project Team.	The EA team communicated with WHN Solicitors in April 2022. WHN Solicitors confirmed Tilerock has sold off most roads to Webbplace Limited but the bridge was not owned by either company. A Land Registry search has also been conducted which shows the roads on the Meadow Park being owned by Webbplace Limited but no owner for the bridge.

	check with UU this over pumping isn't happening in times of flood or when river level is high – has a permit been obtained/or needed for this. Suggestions were made from residents at Meadow Park about reducing the scope of the capital works but upgrading the flow through Lumb Bridge (reducing u/s levels in flood) and only doing walls d/s of Lumb Bridge.		
Irwell Vale	Hardsough Farm advised us to speak to local landowners as over 800 acres of land this could be a good NFM opportunity	EA Project Team.	The EA is seeking to organise a drop in event for landowners to attend and discuss opportunities of NFM on their land and the benefits this would bring to the wider communities. More information will be shared in February 2024.
Irwell Vale	Residents have raised blockage potential. Tree on UU land u/s of Irwell Vale bridge. It is dead and leaning. Might cause a blockage if it falls in. They haven't heard anything from EA following up the incident.	Has this been looked at and raised with UU?	This has been raised with United Utilities and awaiting their response to the status of the tree.
Irwell Vale	What smaller 'quick wins' are there that can be implemented going forward (outfall flaps, SW upgrades, enhanced maintenance etc)	EA Project Team.	The EA are actively seeking funding to pursue NFM measures and any quick wins on land within the catchment. A bid has been recently submitted to 'NFM £25m government fund' to seek whether any funds are available to progress NFM in this specific area.
Irwell Vale	What would LCC do in the event of Lumb bridge being damaged during a high water event? PRoW FP1403123.		LCC would inspect the bridge after a high water damage event to identify whether there were any new or altered risks for people using the public right of way, and respond according to the findings.
Irwell Vale	There is erosion on a PRoW (FP1403125) that runs left bank immediately downstream of Lumb Bridge. Apparently the		Please report the issues to Lancashire County Council public rights of way team for investigation using the 'Love Clean' Streets app or by telephone during working hours to tel. 0300-123-6780.

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	erosion is quite bad and dangerous. What can be done here?		
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If you do not wish to receive any further communication regarding this matter please contact the Environment Agency by e-mailing FloodResilienceGMMC@environment-agency.gov.uk or write to the Flood Resilience Team, Environment Agency, Richard Fairclough House, Knutsford Road, Warrington, WA4 1HT and we will remove you from our records.

If you know of any other residents who do not currently receive communications from the Environment Agency who would like to receive future updates regarding the flood scheme please ask them to e-mail FloodResilienceGMMC@environment-agency.gov.uk