

Moreton in Marsh Flood Action Group

Dec 2024



MP Flood Meeting Report

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1. Introduction

As part of the goal to establish a multi-Agency approach to flooding in Moreton-in-Marsh (MiM), Gloucestershire County Council (GCC) commissioned the National Flood Forum (NFF) to set up and support a Flood Action Group for the town.

The community led MiM Flood Action Group (FAG) formed in January 2024 and consists of residents who have personally experienced internal property flooding or live in a home that has previously flooded.

As a reminder, our Group works with the Risk Management Authorities (RMA) to:

1. Understand the responsibilities and scope of each RMA in Moreton.
2. Create a map of flood risk areas, catchment areas, and relevant infrastructure to identify potential problem areas and address unseen issues.
3. Support the implementation of the Natural Flood Management (NFM) project to reduce flood risk. Gain a better understanding of previous flood risk mitigation schemes.
4. Raise awareness in the community about the importance of reporting flooding, understanding flood risk, and preparing for floods.
5. Improve understanding of RMA roles as Statutory Consultees and the role of Sustainable Drainage Systems (SuDS) in new developments.
6. Understand the maintenance requirements of the Evenlode River and flood risk assets.

These tasks aim to enhance flood risk management, community awareness, and collaboration between RMAs and other stakeholders in Moreton.

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The FAG continues to work with the various agencies to reduce the risk of flooding within Moreton and further downstream, particularly Bledington and has recently held its third multi agency meeting (MAM)

2. Executive Summary

The FAG continues to work with the various agencies to reduce the risk of flooding within Moreton and further downstream, particularly Bledington.

The FAG has been on an information gathering exercise during 2024 to identify all risks with the aim to introduce mitigating measures, this includes but is not limited to:

- Analysing 15-minute rainfall data within Moreton since 2009 to identify trends and how quickly rainfall can accumulate/decumulate within the river Evenlode.
- Identification of flood risk areas in Moreton via the application of LIDAR imagery modelling.
- Identification of Thames Water and Highways drainage and pipes within Moreton and to then overlay these onto the LIDAR imagery to identify potential pinch points.
- Recognising concerns around the Dunstall Farm (Spitfire) development exacerbating the flood risk to residents of Fossey Avenue.
- Investigated the riparian ownership (RO) rules for those residents and businesses/agencies whose land borders the river Evenlode.
- Understanding the annual maintenance schedules of the RMAs.
- Various potential options for NFM projects within Moreton.
- Improvements to Thames Water pumping station land to help reduce flooding around Primrose Court, Stockwells and Croft Holm
- Recruiting flood wardens to help support the community affected by flooding.

Two significant primary issues that contribute to an increased flooding risk in Moreton have been identified:

1. water runoff from the Batsford estate
2. surface-level water from heavy rainfall overwhelming the drainage system, exacerbated by waterlogged land.

The FAG seeks the support of Sir Geoffrey to facilitate communication between the agencies and Lord Dulverton of the Batsford estate. This collaboration aims to implement Natural Flood Management (NFM) measures across the estate, which is expected to significantly reduce flooding risks in Moreton and Bledington.

The FAG has successfully organised two community events, an information day and a community action day in Blenheim Meadow. The latter aimed to remove plastic weed suppressing matting and promote tree growth. The events were well-attended and successful, and the FAG plans to continue organising similar events to further reduce flood risks and engage the community.

3. Flood risk (Batsford estate)

Moreton, due to its topographical location in a geological bowl, is at risk of surface water runoff from the Batsford estate. This has been a historical issue, but climate change has made it more frequent and severe. The rapid flow of water from the estate poses a significant threat to Moreton. Appendix 3.1 provides a LIDAR view of the flood risk, highlighting the water flow from the Batsford estate into Moreton.

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When the FAG was established in early 2024, an NFM project for the Batsford estate had already secured funding and received agreement from Lord Dulverton for implementation. However, Lord Dulverton withdrew from the arrangement, and subsequent efforts by various agencies have not made any further progress. As a result, Moreton remains at high risk of substantial flooding caused by water runoff from the Batsford estate.

Failure to implement the NFM project on the Batsford estate in Moreton could have severe consequences for the community. Due to the topographical nature of the area, surface water runoff from the estate poses a significant flood risk to Moreton. Without the NFM project, this risk will persist and potentially worsen due to the effects of climate change.

The failure to address this issue could result in frequent and amplified flooding in Moreton. The rapid flow of water from the Batsford estate, especially during heavy rainfall events, could lead to substantial flooding within a short period of time. The community would be at high risk of significant damage to properties, infrastructure, and the environment.

Furthermore, the lack of progress in implementing the NFM project despite previous funding and agreement from Lord Dulverton indicates a failure to effectively mitigate the flood risk. This could erode trust and confidence in the agencies responsible for flood management and leave the community feeling vulnerable and unsupported whilst the Batsford estate remains unaffected.

It is crucial to implement the NFM project on the Batsford estate to enhance flood protection for the community. **The FAG seeks the support of Sir Geoffrey to act as an intermediary between Lord Dulverton and the agencies to advance this matter towards a satisfactory resolution.** This would help increase protection from flooding and ensure the safety and well-being of the community in Moreton.

The FAG would also be keen to resurrect the plan for a bund to be built at the Moreton cricket club, this was looked into after the 2007 but was refused by the Batsford estate.

4. Flood risk (Surface water)

Moreton is exposed to flooding via surface water that swamps the existing drainage and pipe networks. Heavy rainfall or water runoff can cause drainage infrastructure to become overwhelmed, leading to water pooling in low-lying areas. This pooling can quickly escalate into flooding, causing damage to property and posing safety risks

Appendix 3.2 shows the water levels at the Primrose Court river Evenlode monitoring station since 2009 on a continuous 15-minute basis. The recordings are initially recorded in 1cm intervals up to 20cm and then 5cm intervals thereafter. The trend clearly shows water levels are becoming higher on a more frequent basis and further evidence of this is shown in Appendix 3.3 which shows those 15-minute intervals where the river level was above 1m since 2009. The result being that 2024 has had over 300 instances where the water level was over 1m.

As this trend is likely to continue due to climate change, it is critical that the RMA's perform maintenance and enhancements on their relevant infrastructure. The FAG is working with the agencies to ensure the maintenance schedules are both visible and effective, especially where these drains or pipes overlap flood risk areas (Appendix 3.4).

Work is ongoing with this task and although residents are advised to log flooding issues with GCC via the *FixMyStreet* app, the response thus far by Highways has been that the flooded drain will be looked at during the next maintenance check. If the community is expected to log all issues, then the response should be more helpful, else residents may feel unsupported.

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5. Other FAG issues / actions / updates

5.1 Dunstall Farm (Spitfire) development

Concerns have been raised about surface water levels on the Spitfire site and the potential risk to Fossey Avenue. The construction phase increases the risk of flooding due to the loss of topsoil. The SuDS plan in the planning application includes swales and attenuation ponds to prevent runoff into the Fossey flood ditch, directing water to the Stow Brook maintained by the Cotswold District Council (CDC).

However, the CDC can only take action against the landowner, not the management company, if the SuDS are not implemented correctly or maintained. The CDC lacks resources to monitor all SuDS schemes and relies on local complaints. This places the burden on residents who may not be aware of the CDC's role.

If an additional condition compliance application is received, the CDC consults with Thames Water and Leep Water to assess infrastructure capacity. However, this approach may not consider the strategic impact of housing on existing SuDS capacity.

In summary, concerns exist regarding surface water levels on the Spitfire site and the effectiveness of SuDS. The involvement of the CDC, responsibility of the landowner, and the need for proper monitoring and strategic planning are important considerations.

5.2 Riparian ownership

The FAG has identified that some property owners in Moreton may have RO responsibilities along the river, ditches and relief channels across Moreton. We have concerns regarding the ability for some RO to carry out their duties as they may be vulnerable or elderly.

The Environment Agency (EA) have highlighted that RO responsibilities depends on the owner's perception of risk that a lack of vegetation maintenance may have on theirs and other properties by increasing the risk of flooding.

The EA do not have the funding to support residents who are unable to complete RO responsibilities. The result of all this is that Moreton is exposed to blockages in the Evenlode river and the subsequent build-up of silt.

5.3 NFM / flood mitigation projects

Several areas within Moreton have been identified as possible areas for NFM projects, these are the Batsford estate (as highlighted above), land north of the Queen Victoria Gardens (Old Farm), Blenheim Meadow as well as widening the Evenlode river channel around Primrose Court and Croft Holm

Old Farm (Batsford Road)

The Evenlode Catchment Partnership (ECP) are in discussion with the tenant farmer who is interested in NFM. Funding has been secured for two years though final approval is still required from Lord Dulverton so concerns exist that he may refuse this project as well as the main Batsford estate NFM project. The project is waiting for Countryside Stewardship payment details to be published later in the year before approaching Lord Dulverton for final approval. Once permission is granted, then the ECP will design the scheme to be delivered Summer 2025.

Blenheim Meadow

The ECP are working with the FAG and applicable agencies to design and build NFM as part of a community led greenspace project. The aim is to reduce flooding whilst at the same time to create a haven for flora and

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fauna to thrive. Work is ongoing though it is envisaged a final project scope and decision will be completed in Q1 2025.

Croft Holm channel widening /relief channel

Primrose Court, Stockwells and Croft Holm are at high risk of flooding during an extreme rainfall event. Discussions are ongoing between Thames Water, the EA and the FAG to widen the channel around this area so that it increases the capacity of the river and thus reduce the risk of flooding. TW are currently against the project as they deem it outside of their maintenance remit, however, there could be grants available and TW would just need to project manage it potentially. Discussions are ongoing.

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6. Appendix

Appendix 3.1 – LIDAR imaging for Moreton



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Appendix 3.2 – Moreton historical 15-minute rainfall data

This is the number of 15-minute intervals since 2009 where rainfall has been recorded at the Primrose Court measuring station (some missing data in 2009). The recordings are initially recorded in 1cm intervals up to 20cm and then 5cm intervals thereafter.

Meter	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
0.05	-	-	-	-	-	-	-	-	383	666	34	-	-	3	-	1	1,087
0.06	-	-	-	-	-	-	-	-	622	818	155	-	-	-	-	-	1,595
0.07	-	-	-	-	-	-	-	10	1,323	1,166	517	288	-	-	-	-	3,304
0.08	1,685	318	-	-	5,008	-	-	312	1,216	1,331	1,058	4,087	-	-	-	-	15,015
0.09	4,589	5,145	-	-	5,694	-	-	1,199	2,369	1,026	3,598	3,999	1,819	5,256	-	425	35,119
0.1	6,485	7,497	2,771	1,241	1,597	3	49	2,643	2,884	1,335	4,661	3,943	2,652	7,407	3,745	4,799	53,712
0.11	1,600	5,648	9,684	4,955	2,701	4,106	2,742	2,047	2,681	1,197	5,560	2,588	5,364	4,015	4,436	3,122	62,446
0.12	449	2,933	11,344	1,738	3,560	5,772	1,521	2,432	1,898	2,074	3,804	1,202	5,036	3,340	3,965	2,182	53,250
0.13	721	3,386	4,378	3,983	2,108	6,775	4,912	4,250	2,303	3,489	1,655	1,109	2,721	2,781	3,783	1,053	49,407
0.14	581	2,152	1,679	2,872	1,576	2,414	4,579	5,048	3,919	3,466	1,124	1,652	3,144	2,714	1,610	900	39,430
0.15	649	1,336	854	1,999	949	1,581	3,899	3,599	3,701	3,294	1,323	2,609	2,366	2,003	1,250	1,637	33,049
0.16	545	933	894	1,595	1,470	2,096	4,517	3,018	3,841	3,135	1,454	2,357	1,916	1,387	1,117	2,567	32,842
0.17	500	1,180	627	1,682	742	1,587	4,163	2,296	2,835	2,861	1,445	1,605	1,561	1,088	1,107	1,862	27,141
0.18	369	760	498	1,848	1,348	1,215	2,113	1,608	1,523	1,957	1,091	1,269	1,100	1,121	1,503	1,419	20,742
0.19	465	454	562	2,035	1,707	1,211	1,671	1,265	859	1,590	849	814	1,081	611	1,542	1,381	18,097
0.2	285	359	300	1,392	1,445	1,052	1,105	818	455	1,254	684	749	1,338	474	1,649	1,034	14,393
0.25	794	1,553	862	4,185	2,961	3,835	2,697	2,411	1,418	2,886	2,951	2,629	2,647	1,476	4,388	4,002	41,695
0.3	290	615	301	2,267	1,203	1,606	602	942	477	840	1,138	1,155	1,217	541	1,828	1,633	16,655
0.35	158	290	97	1,197	344	667	290	367	76	239	745	550	358	187	982	821	7,368
0.4	47	100	-	642	226	299	70	188	58	93	354	281	188	106	416	432	3,500
0.45	9	75	-	366	98	193	58	120	42	41	230	183	91	81	292	313	2,192
0.5	8	60	-	185	50	212	26	70	21	44	153	148	79	61	226	269	1,612
0.55	-	41	-	133	42	137	8	44	26	50	84	94	89	43	175	230	1,196
0.6	-	18	-	127	40	47	14	18	14	34	82	123	73	26	111	206	933
0.65	-	7	-	106	22	36	4	18	-	44	81	66	43	26	71	161	685
0.7	-	13	-	67	15	57	-	16	-	14	53	78	20	-	71	140	544
0.75	-	22	-	47	23	27	-	27	-	-	53	49	18	-	43	117	426
0.8	-	25	-	53	10	15	-	10	-	-	38	27	18	-	23	74	293
0.85	-	7	-	49	20	20	-	1	-	-	20	19	23	-	40	46	245
0.9	-	-	-	22	31	16	-	2	-	-	7	22	33	1	34	42	210
0.95	-	-	-	22	13	31	-	2	-	-	6	18	7	1	18	62	180
1	-	-	-	44	15	42	-	4	-	-	12	20	4	2	26	110	279
1.05	-	-	-	28	3	5	-	3	-	-	7	21	-	1	8	35	111
1.1	-	-	-	22	4	8	-	1	-	-	15	3	-	-	-	20	73
1.15	-	-	-	6	4	1	-	2	-	-	-	2	-	-	-	28	43
1.2	-	-	-	7	4	-	-	4	-	-	-	3	-	-	-	27	45
1.25	-	-	-	6	3	-	-	7	-	-	-	3	-	-	-	25	44
1.3	-	-	-	6	5	-	-	3	-	-	-	2	-	-	-	9	25
1.35	-	-	-	8	9	-	-	-	-	-	-	4	-	-	-	9	30
1.4	-	-	-	8	-	-	-	-	-	-	-	4	-	-	-	-	12
1.45	-	-	-	20	-	-	-	-	-	-	-	5	-	-	-	-	25
1.5	-	-	-	1	-	-	-	-	-	-	-	21	-	-	-	-	22
1.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0

20,229	34,927	34,851	34,964	35,050	35,066	35,040	34,805	34,944	34,944	35,041	33,801	35,006	34,752	34,459	31,193	539,072
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Source: Hydrological data downloaded from DEFRA

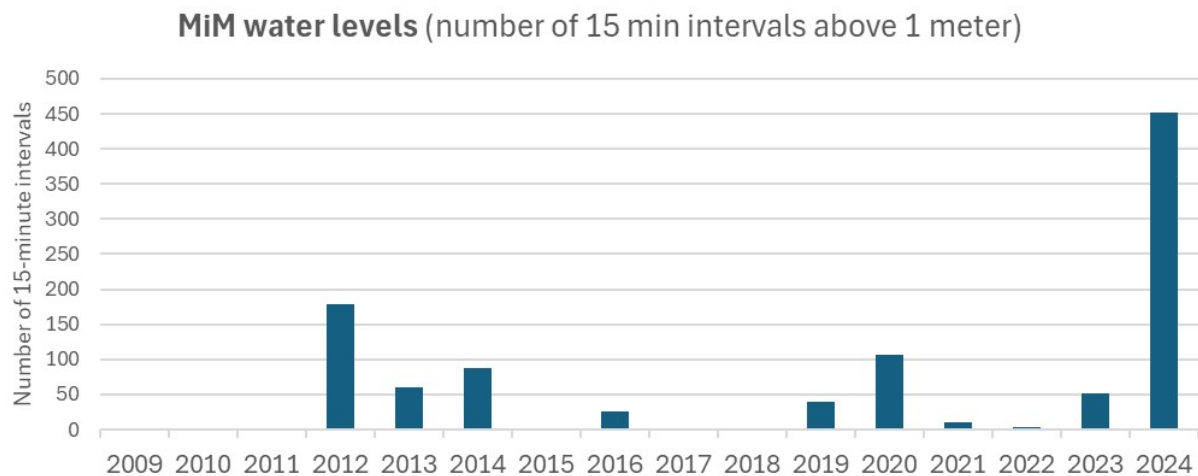
(<https://environment.data.gov.uk/hydrology/station/5e6bb094-ecd5-4598-96b9-8e946757d258>)

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Appendix 3.3 – Moreton rainfall data greater than 1 meter

This is the number of 15-minute intervals since 2009 where rainfall has been recorded at the Primrose Court measuring station (some missing data in 2009) that are greater than 1m.



Source: Hydrological data downloaded from DEFRA

(<https://environment.data.gov.uk/hydrology/station/5e6bb094-ecd5-4598-96b9-8e946757d258>)

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