



**Project Groundwater**  
Are you flood resilient?

# **Pang Valley Community Readiness Survey Report**

Written by the Engagement Delivery workstream.

May 2023 – Version 4



## Table of Contents

<b>1. Executive Summary</b>	<b>3</b>
Survey Objectives and Methodology	3
Key Findings	3
Recommendations	6
<b>2. Results Analysis</b>	<b>8</b>
Pang Valley	8
<b>3. Conclusion</b>	<b>29</b>

# 1. Executive Summary

---

## Survey Objectives and Methodology

Project Groundwater is a six-year programme, working with communities in nine high-risk flood areas of the Chiltern Hills and Berkshire Downs. It aims to increase engagement with 9 pilot communities in order to help build understanding and awareness of groundwater flooding and increase resilience, in collaboration with local stakeholders and community members.

The aim of the Community Readiness Survey is to understand levels of community knowledge and experience of groundwater flooding, and levels of interest in becoming involved in Project Groundwater. The survey results presented in this report, alongside further communication and liaison with the project workstream leads, will inform subsequent engagement actions in the nine communities.

The survey was developed by the Engagement Delivery workstream of Project Groundwater, in collaboration with the other workstream leads. It was open to responses between December 20<sup>th</sup>, 2022 and March 3<sup>rd</sup>, 2023.

The survey was disseminated through a variety of methods. Online methods included sharing through the project's social media, community-specific communication channels, sharing through key contacts from each community. In addition, in-person outreach was conducted, with each community being visited between 1 and 3 times, by visiting key spaces and attending community events.

Analysis of the data was conducted quantitatively and qualitatively, using Excel to analyse the data and produce graphs.

## Key Findings

The survey results have provided a strong foundation on which to build future engagement plans and approaches throughout the remainder of Project Groundwater.

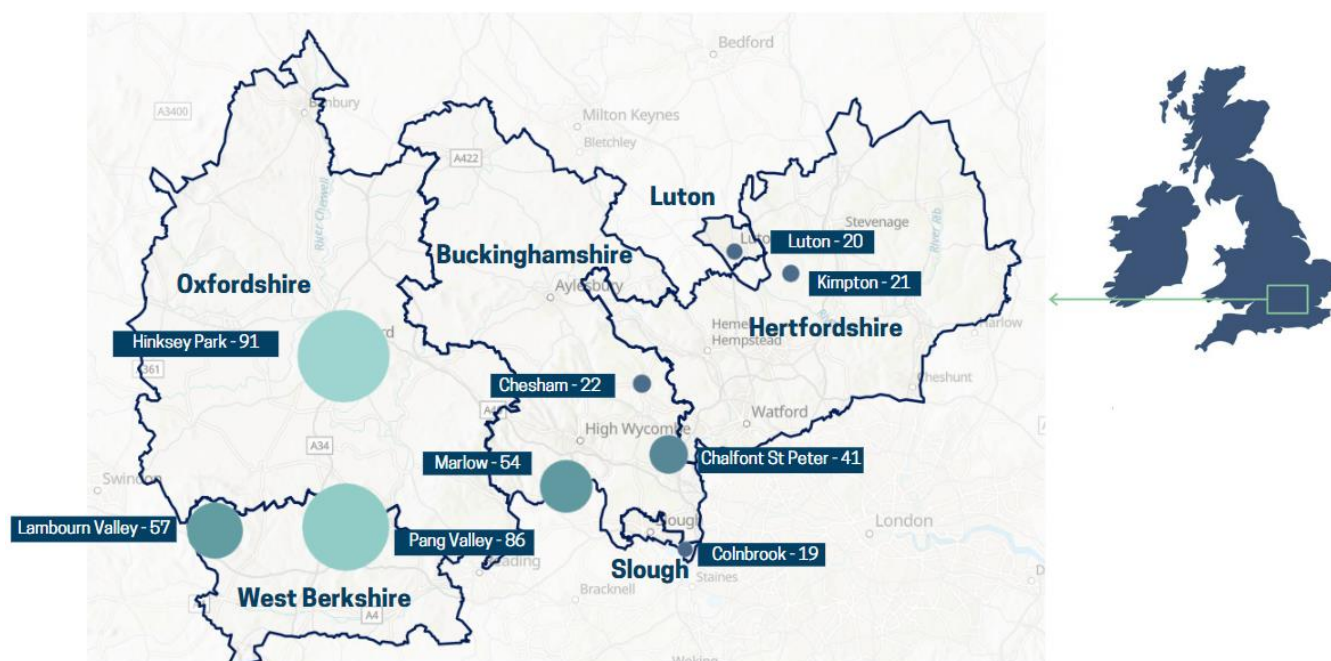


Figure 1 - Response rates across the nine communities.

Theme	Findings
<b>Response Rates</b>	<p>416 responses were received across the nine communities (Figure 1). Response rates varied depending on the community, with the lowest being 19 responses in Colnbrook with Poyle and the highest being 91 responses in Hinksey Park.</p> <p>The variation in the number of survey responses between communities can be seen as a proxy for the level of existing community involvement in flood issues in the community and exacerbated by the different dissemination opportunities received and undertaken in each community. Low response rates can be interpreted as a result itself, signalling that more engagement work is needed to build relationships with key stakeholders and raise awareness about groundwater flooding.</p> <p>This encourages an assessment of the results within their community context and highlights the need for community-specific approaches to engagement.</p>
<b>Respondent Demographics</b>	<p>Respondents were not representative of the communities' wider demographics. Responses from over 65s and property-owners, as well as people who have been residents of their community for over 20 years, were disproportionately captured by the survey.</p>

Additionally, people who have experienced flooding may have been more willing to complete the survey, pointing to the importance of future engagement work needing to engage with those who might have had less experience of flooding, whilst still being at risk.

**Experience,  
Knowledge,  
and Concern  
about  
Flooding**

The results show common threads between communities. Experience and knowledge of flooding is common, with most respondents stating they have a medium understanding of flood risk and mechanisms.

The results confirm the experience of flooding lived by the vast majority of respondents, with flooding mainly having impacted respondents' travel routes and property. Conversations with community members during our in-person visits confirm these results.

Among respondents, there is significant concern about flooding, as well as concern about groundwater flooding specifically. However, there is a common lack of understanding around the specifics of groundwater flooding mechanisms and measures among certain groups, in particular how this might differ from other forms of flooding.

Inadequate infrastructure and inadequate planning policy for new developments were cited as the main factors perceived to be influencing flood severity.

**Opportunities  
for Flood  
Management  
Actions and  
Initiatives**

Most respondents are aware of local initiatives and actions to manage, reduce, or adapt to flooding. Among respondents who have conducted such actions and initiatives, the majority relate to increasing their personal awareness of flooding and information-seeking, rather than technical measures in their homes.

Among people who have not conducted such actions or initiatives, the main reasons are lack of information and cost. 62% of respondents feel they would benefit from knowing more about what options are available to help adapt to flooding, and 53% of respondents feel they would benefit from knowing more about how their community might be affected by flooding. This illustrates an opportunity for Project Groundwater to conduct more awareness-raising and information-sharing about such actions and initiatives, including about their cost and availability.

---

The majority of respondents are receptive to the opportunity for additional actions and initiatives to reduce, manage or adapt to flooding. 70% of respondents are interested in being further involved with the Project, whether that is through receiving more information or more active collaboration.

---

The results confirm the relevance and utility for engagement work to be conducted within Project Groundwater. Future engagement work will raise awareness about local groundwater flooding risks and measures, establish appetite for future collaboration, and support the integration of local knowledge within the development of Project outputs.

## Recommendations

Recommendation	Description and Justification
<b>Develop and further existing and new relationships with key stakeholder groups, local projects, and community organisations.</b>	<p>Greater relationship building is crucial going forward. Pursuing ongoing conversations and developing new connections will continue to develop our understanding and appreciation of local context, the baseline of which was found through this survey.</p> <p>This will help to continue identifying community-specific needs and desires, helping to steer Project outcomes and future engagement methods.</p>
<b>Strive to ensure future engagement is inclusive and diverse, by researching and including the voices of vulnerable, less-represented groups and by exploring new communication channels.</b>	<p>Research and outreach are needed to ensure greater inclusivity and diversity throughout future engagement.</p> <p>Segments of the population who are less represented or more vulnerable need to be identified and considered throughout all Engagement Plans, to ensure that collaboration is truly inclusive. This will involve conducting additional research to identify such groups, including by using the census data and mapping on GIS.</p> <p>It will also involve brainstorming effective methods to engage with such groups. Examples might include visiting less represented areas or exploring different communication tools to reach younger populations.</p>

An Equality Assessment will also be conducted, alongside the upcoming Engagement Plans, and this should help to structure this consideration.

**Improve awareness and share information about groundwater flooding, including about levels of local flood risk, how groundwater flooding differs from other forms of flooding, and the practical measures that exist to manage or mitigate groundwater flooding.**

Subsequent engagement will need to incorporate awareness-raising about various aspects of groundwater flooding which have been highlighted to be less well understood throughout the survey results. These include:

- People's levels of local flood risk;
- The differences between groundwater flooding and other types of flooding;
- An introduction to the practical measures that can be undertaken to manage or adapt to groundwater flooding.

These three topics were often brought up during engagement and throughout the survey results, and a fuller understanding of these topics should be promoted as a focus during future engagement

**Ensure communities have an active role in the development of future engagement, considering their needs and preferences and creating the opportunity for them to steer the direction of engagement.**

Respondents identified multiple factors as important to encourage them to take a more active role in flood management in their community, including feeling heard and supported and the provision of opportunities for further involvement. These results indicate a real interest in further involvement with the Project and confirms the collaborative nature of future engagement.

Future engagement should therefore prioritise and facilitate opportunities for community members and local stakeholders to steer the engagement methods and activities. This might include organising interviews with local stakeholders to understand their views, hosting consultation event with community members, and regularly asking for feedback among the communities. All future engagement should also be regularly reviewed, acting upon community feedback received.

## 2.Results Analysis

---

### Pang Valley

#### Demographics of Respondents

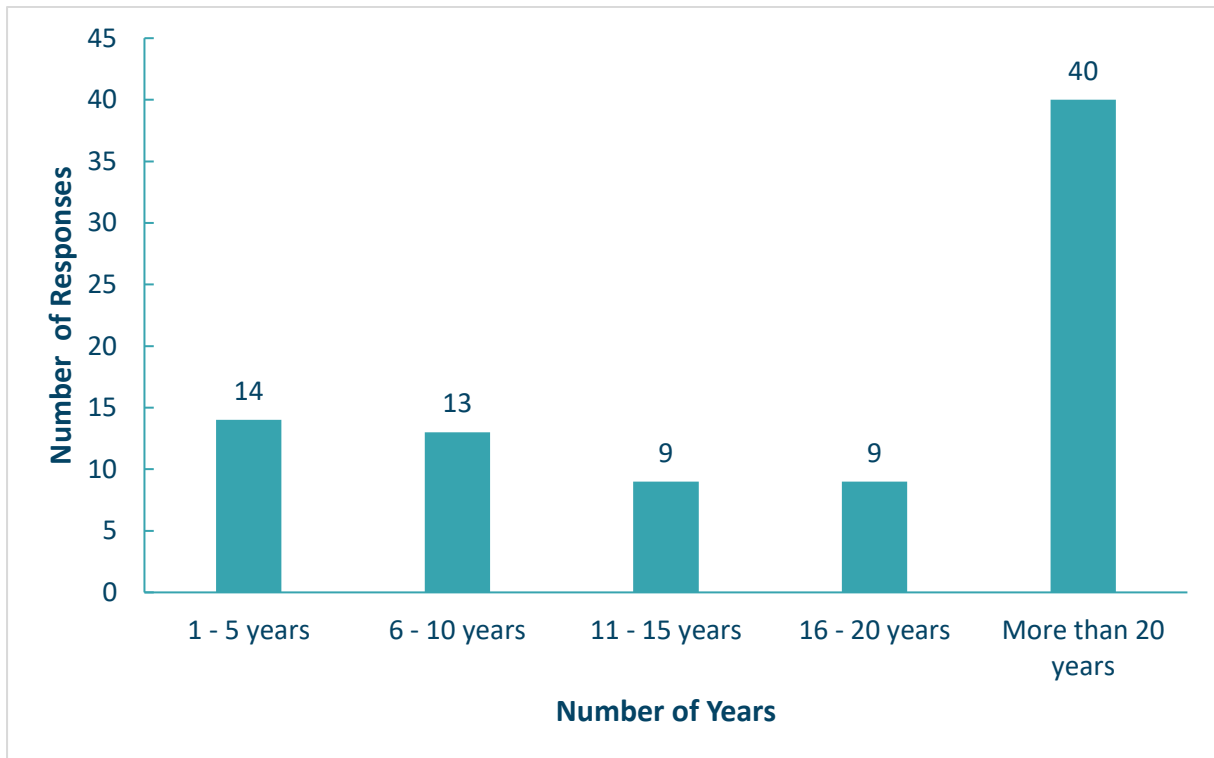
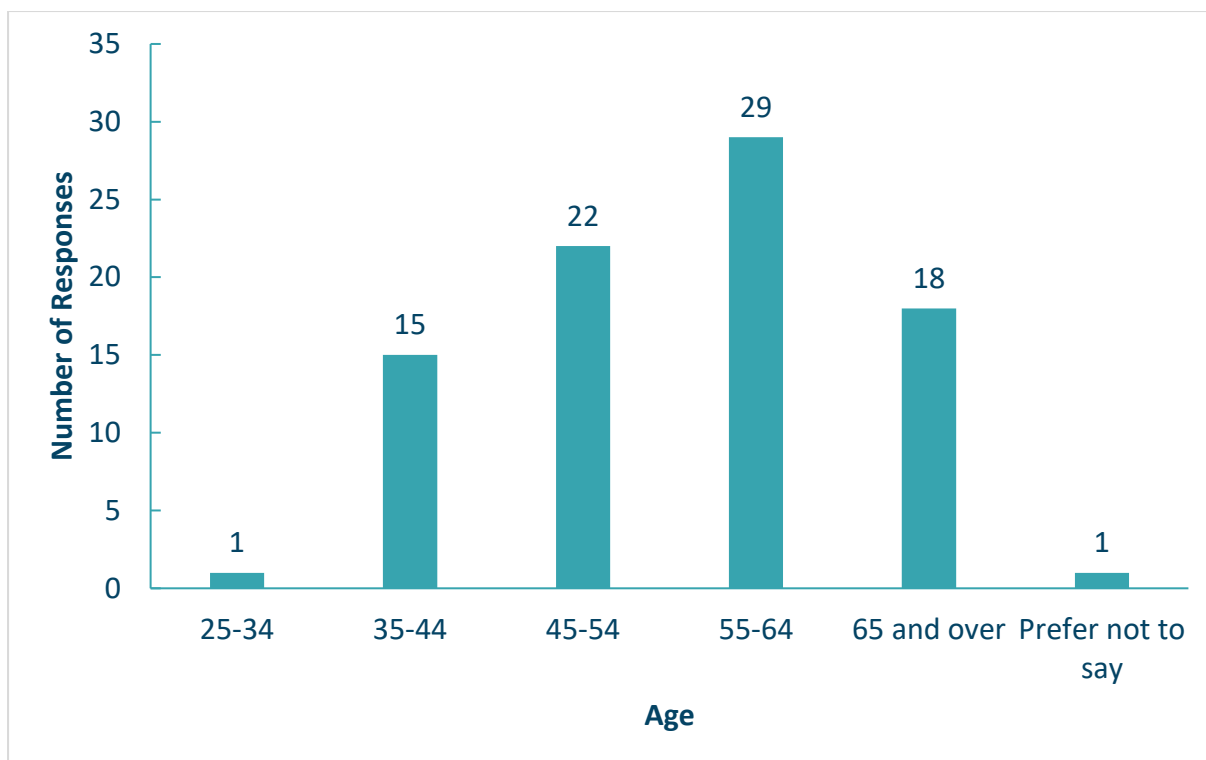
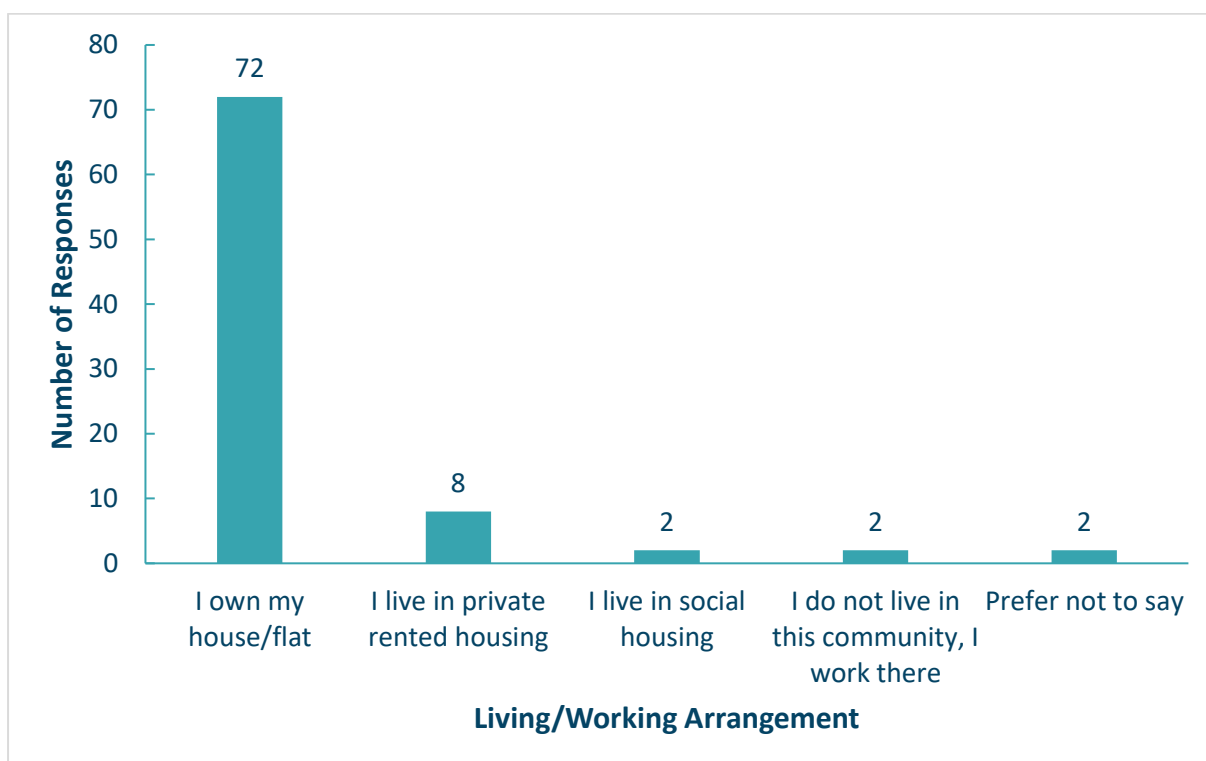


Figure 2 - Number of years respondents have lived or worked in Pang Valley.





**Figure 3 -Age of respondents from Pang Valley.**

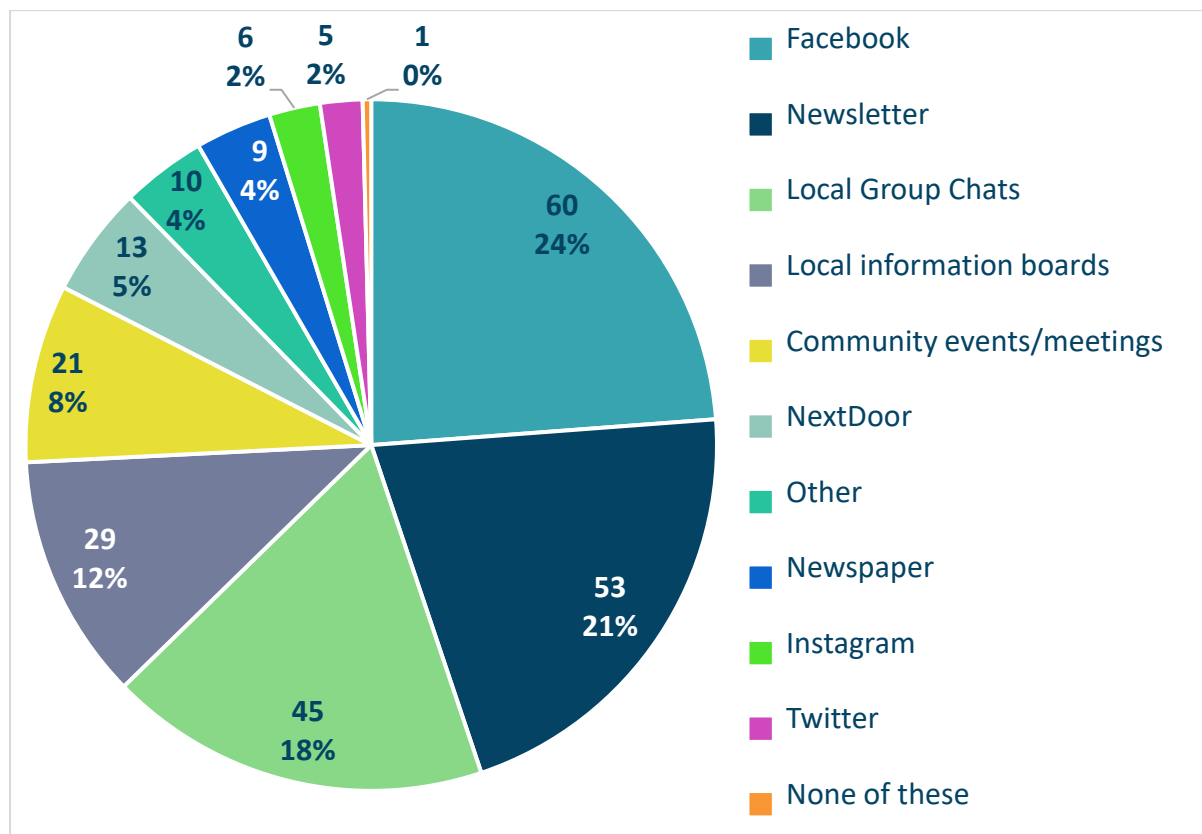


**Figure 4 - Living/working arrangements of respondents from Pang Valley.**

There were 85 total respondents from Pang Valley, making this community the second highest response rate of the survey. Most respondents have been living in one of the four villages that constitute the Pang Valley community for over 20 years, though some proportion of the participants have lived in the community for less than ten years,

providing a different viewpoint as newer members of the community. The majority of respondents own their own homes, though a small proportion rent, and a couple live in social housing or just work in the community. Highly frequented key locations within the Pang Valley villages include village shops, schools, churches, pubs and recreation grounds.

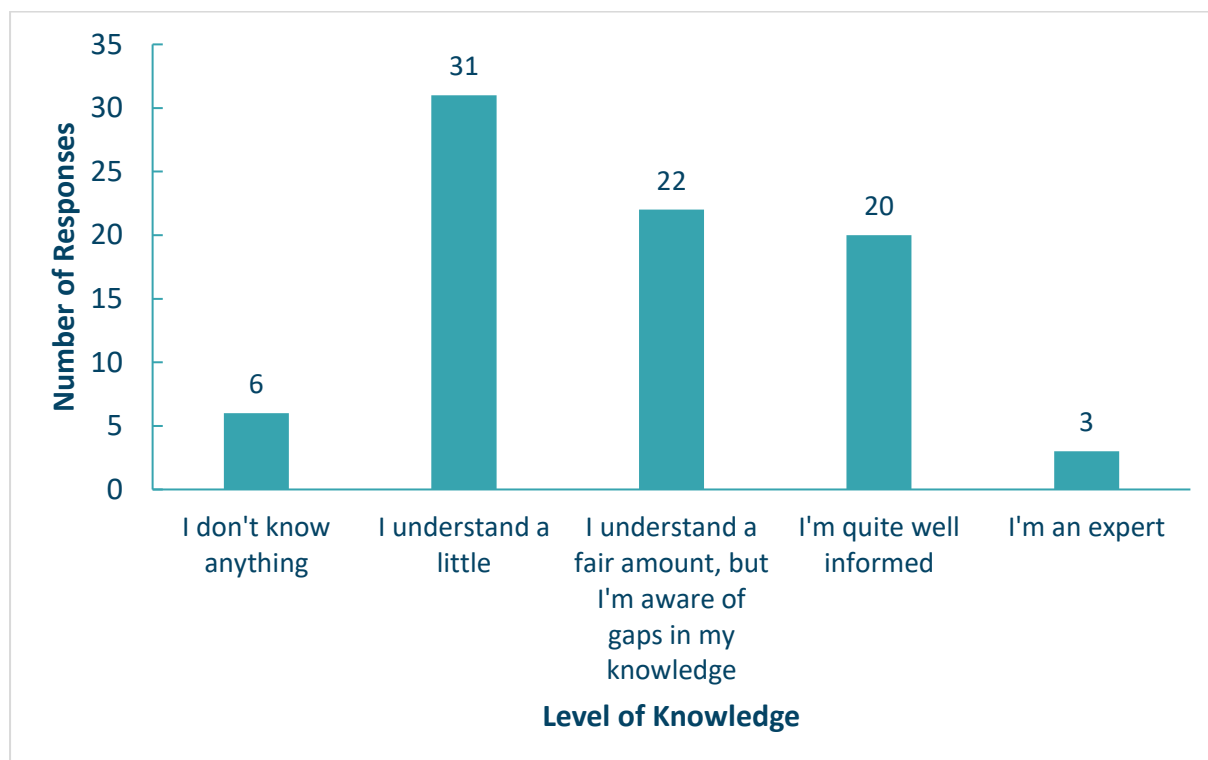
## Community Communication Channels



**Figure 5- Communication channels used by respondents from Pang Valley to stay updated and connected with the community.**

Facebook represents the most commonly used communication channel to connect with the community in Pang Valley. Newsletters are the next most popular choice. Both answers are potentially indicative of where participants found the survey, as both of these channels were used to advertise it. Local group chats and information boards could both serve as alternative means of sharing project updates if we are able to develop sufficient relationships with the owners of these resources to gain access, if the context is appropriate.

## Knowledge of Flooding



**Figure 6 - Perceived level of knowledge by respondents from Pang Valley about local flood mechanisms and risk.**

The spread of knowledge lies mostly in the middle, with the most respondents knowing a little about flooding mechanisms, but the largest proportion judging their level of understanding to be moderately to well informed. This should provide a solid baseline for improvement in knowledge through engagement efforts, though provides an opportunity for slightly more advanced and collaborative sessions in the future. A few consider themselves to be experts on flooding in the area, though there are still a number of respondents that do not know anything, highlighting the need to not take any base knowledge for granted when interacting with the community.

## Concern about Flooding

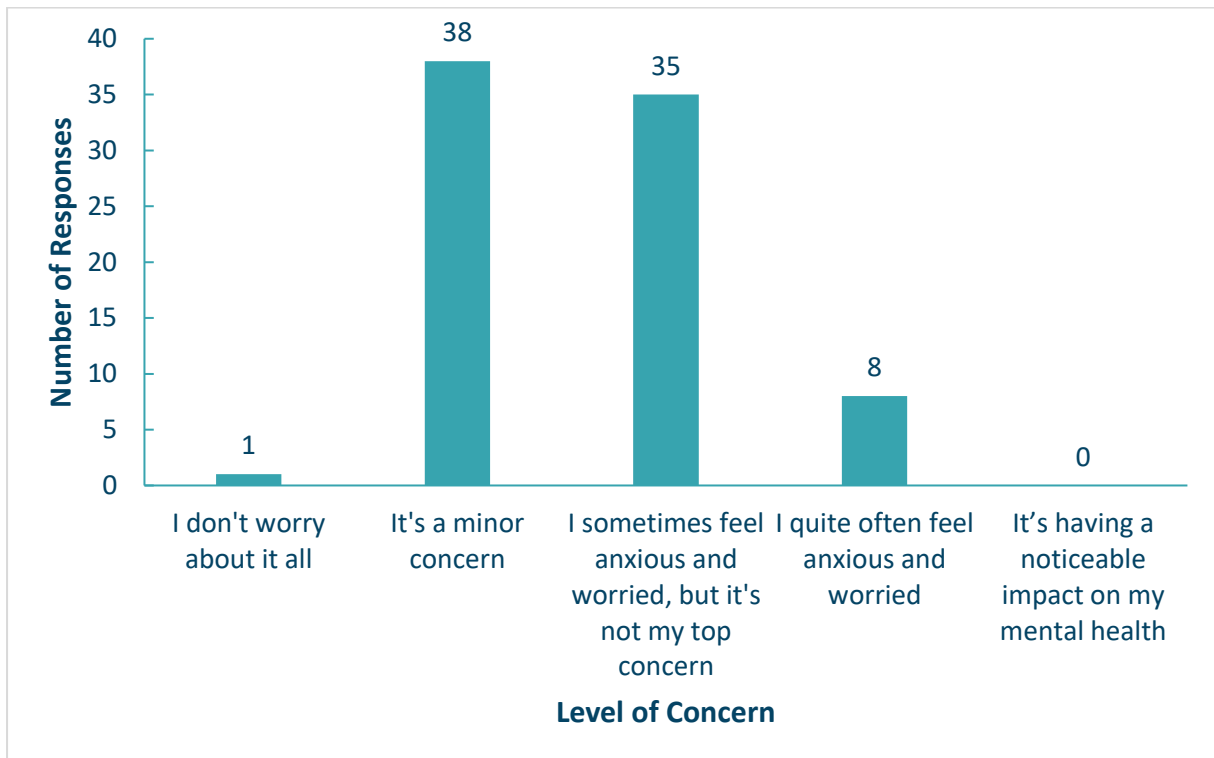


Figure 7 - Respondents' level of concern relating to flooding locally in Pang Valley.

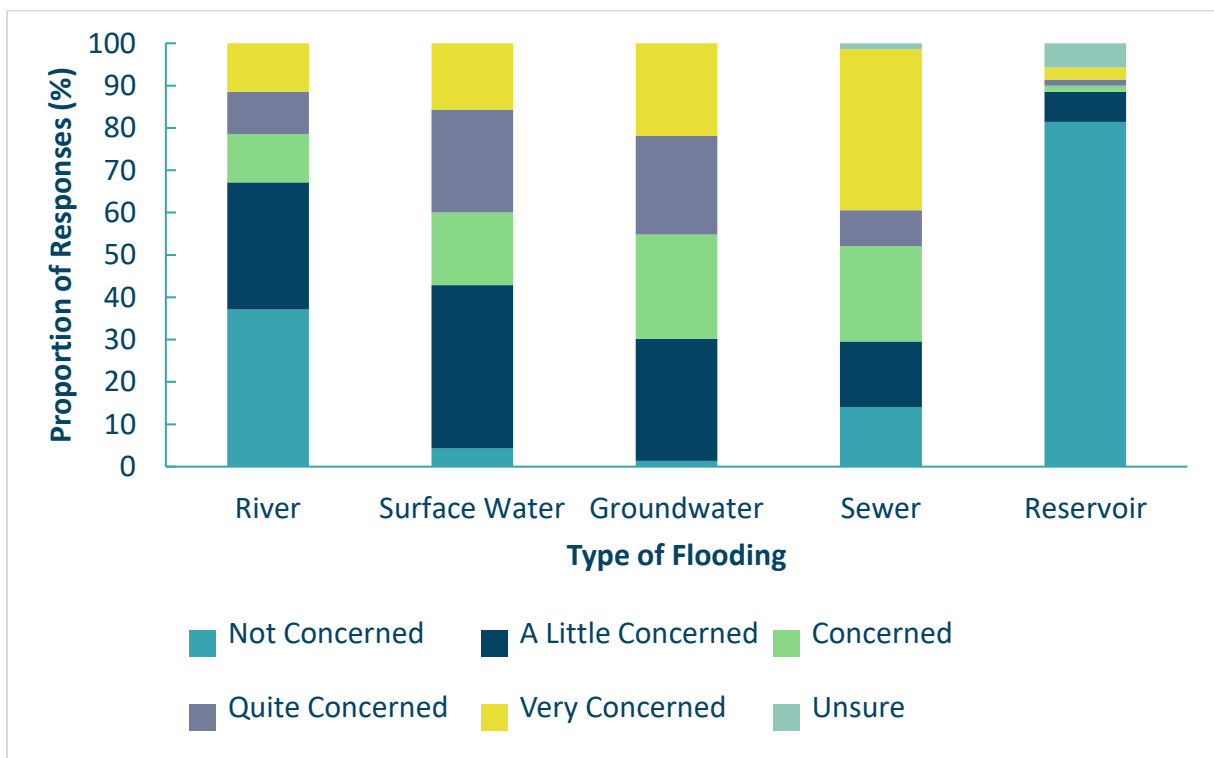


Figure 8 - Respondents' level of concern relating to different types of flooding in Pang Valley.

Most respondents find that flooding elicits a minor to moderate level of concern, though a few participants feel that flooding causes them regular anxiety and worry. It is important to ensure that the project messaging does not cause any excess or undue concern, and as such should partner up with the high profile Pang Valley flood forum to coordinate communications to avoid over-engagement of the community.

Reservoir and river flooding both are considered to be less significant for Pang Valley, allocating little concern to both. Almost all respondents are at least a little concerned about groundwater and surface water flooding, though concern is weighted higher for groundwater flooding in comparison. With regards to sewer flooding, more respondents report that they hold no concern for this factor, though this flood type also received the most votes for being very concerning out of each of the flood types experienced in the area.

## Experience of Flooding

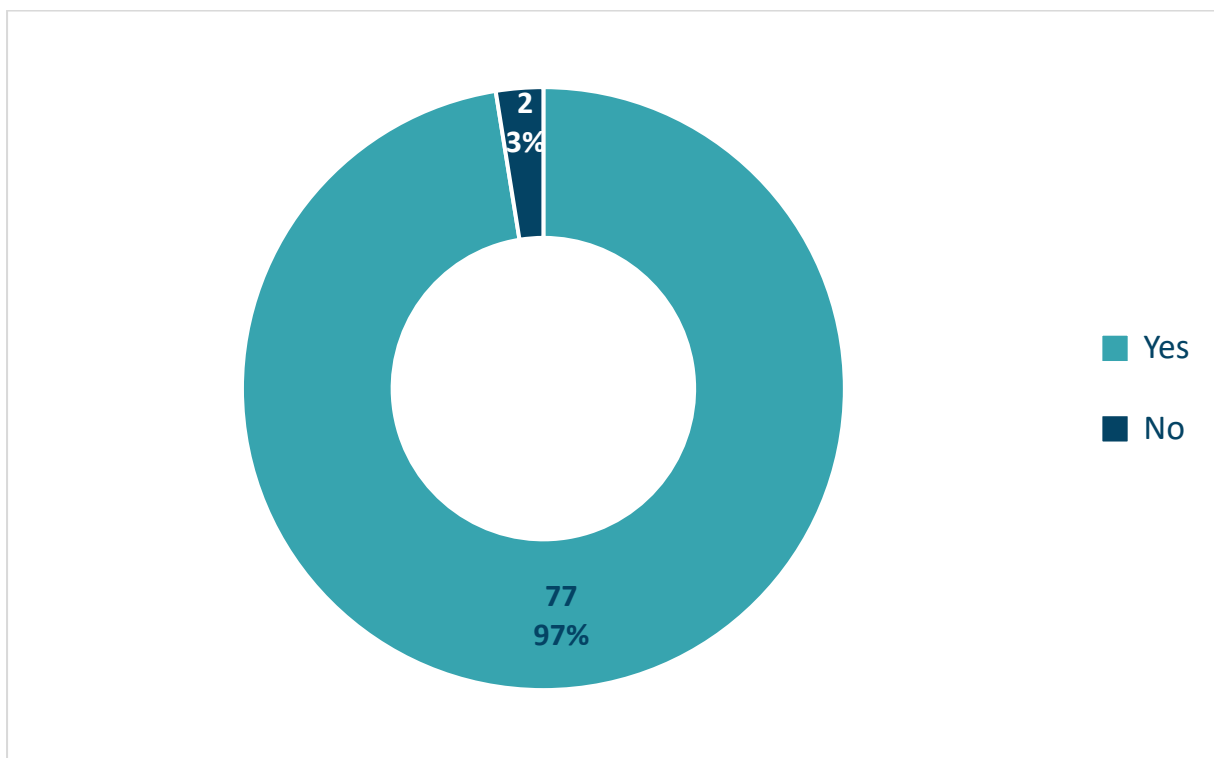


Figure 9 – Whether respondents have experienced direct or indirect impacts by historical flooding in Pang Valley.



Figure 10 - Locations where respondents have been impacted by historical flooding in Pang Valley.

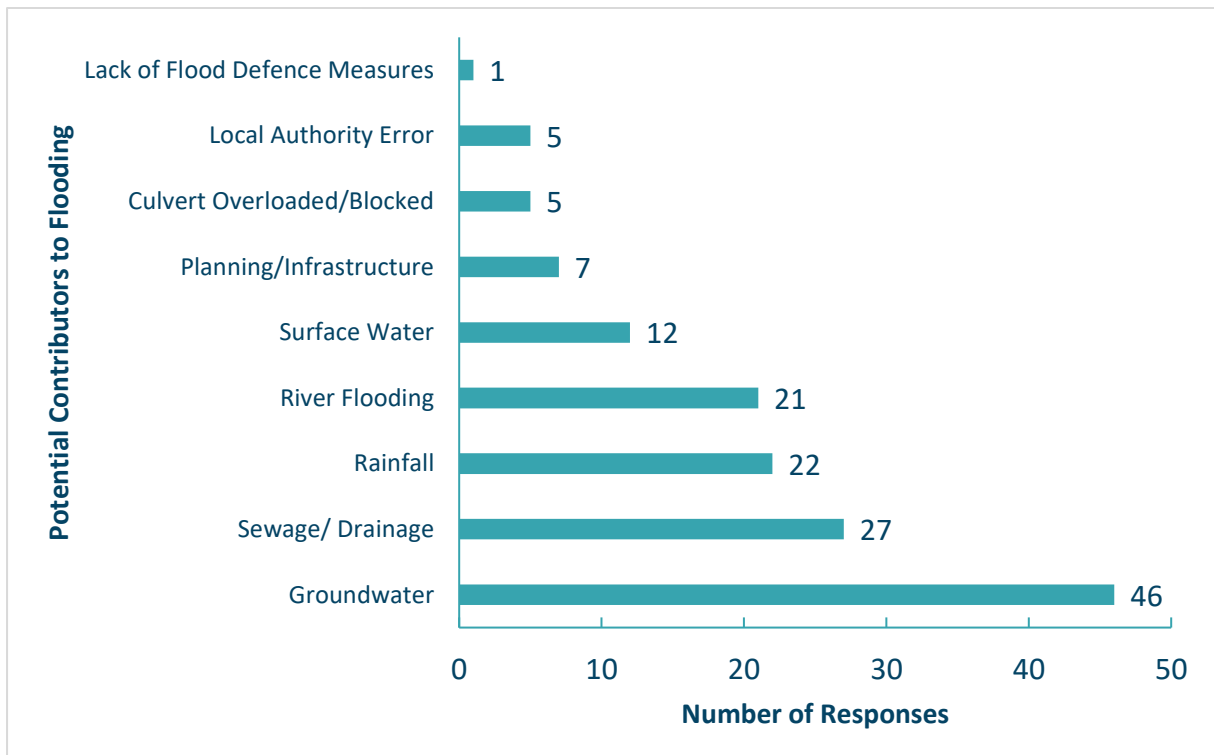


Figure 11 - Potential contributing factors to previous flooding events in Pang Valley as proposed by respondents through open-text response.

97% of respondents have some previous experience with flooding in Pang Valley, potentially explaining part of the enthusiasm within the community and resulting in more survey responses being submitted for Pang Valley.

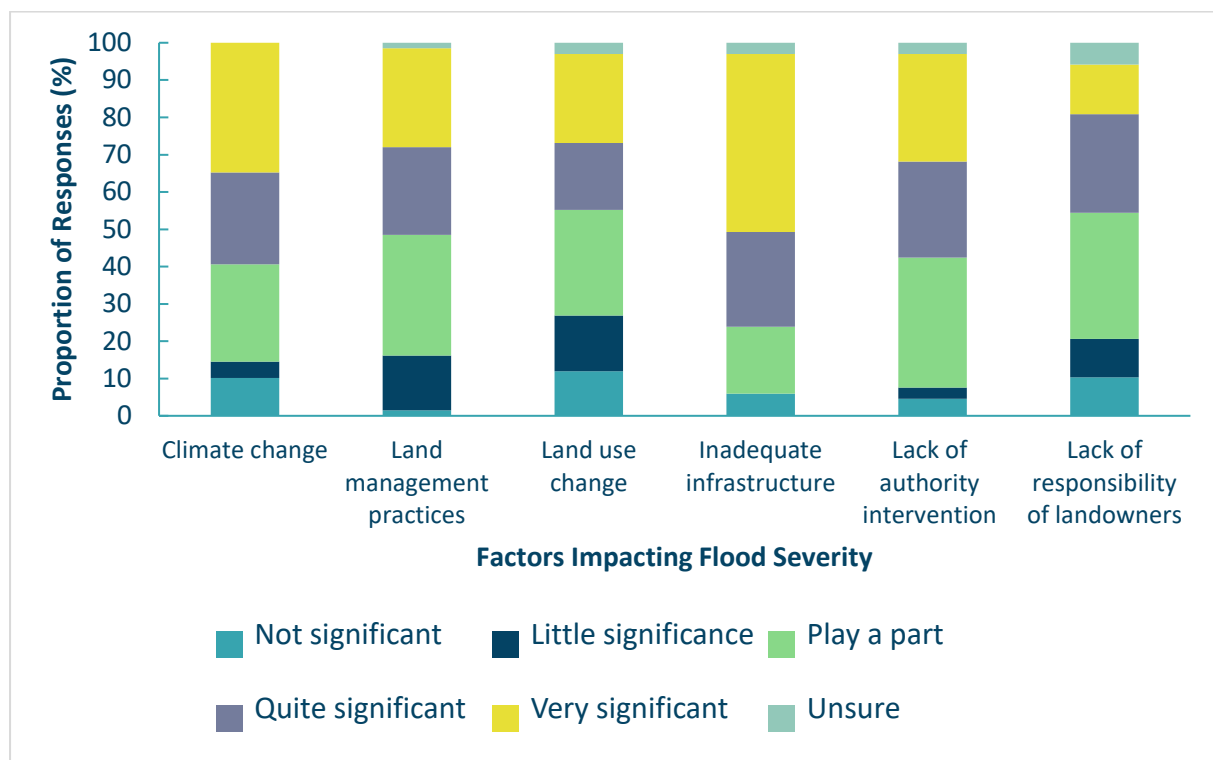
Their attributed causes to this are mostly for groundwater and sewer flooding, matching with responses to the level of concern for each type of flooding. Many responses note that these two factors interact, with excess groundwater intrusion into sewer networks causing the systems to become overwhelmed.

However, river and surface water flooding are also mentioned as potential contributors to past floods, covering each of the flood types where concern was shown. Respondents introduce the river flooding in combination with heavy rainfall and blocked culverts causing the River Pang to burst its banks.

Respondents are well informed about the different causes of flood events, with regular updates on well levels being included in monthly newsletters. A few responses also raise frustration with Thames Water and the Local Authority, in relation to planning, infrastructure and accountability.

One respondent gave a detailed account of a past flooding event which impacted them significantly, stating that the 2014 groundwater flooding event caused over £120,000 of damage to their home, and the resident being required to vacate their property for 13 months whilst drying and repairs were carried out. This account represents an opportunity for the project to collect similar recounts of past flood events and use these as a storytelling method to share the potential impacts of flooding within the community, highlighting the proximity and potential severity of the issue as an awareness raising tool.

## Perceived Significance of Flood Influences



**Figure 12 - Perceived significance of different factors which influence flood severity in Pang Valley.**

In relation to the proposed contributors to flood severity in the previous section, inadequate infrastructure is thought to be a very significant factor impacting flood severity in Pang Valley by almost half of respondents, with only 5% of respondents thinking that this is not a significant factor. Most of the other factors presented similar results, with each considered to have at least some significance by the majority of respondents.



## Perceived Responsibility for Flood Management

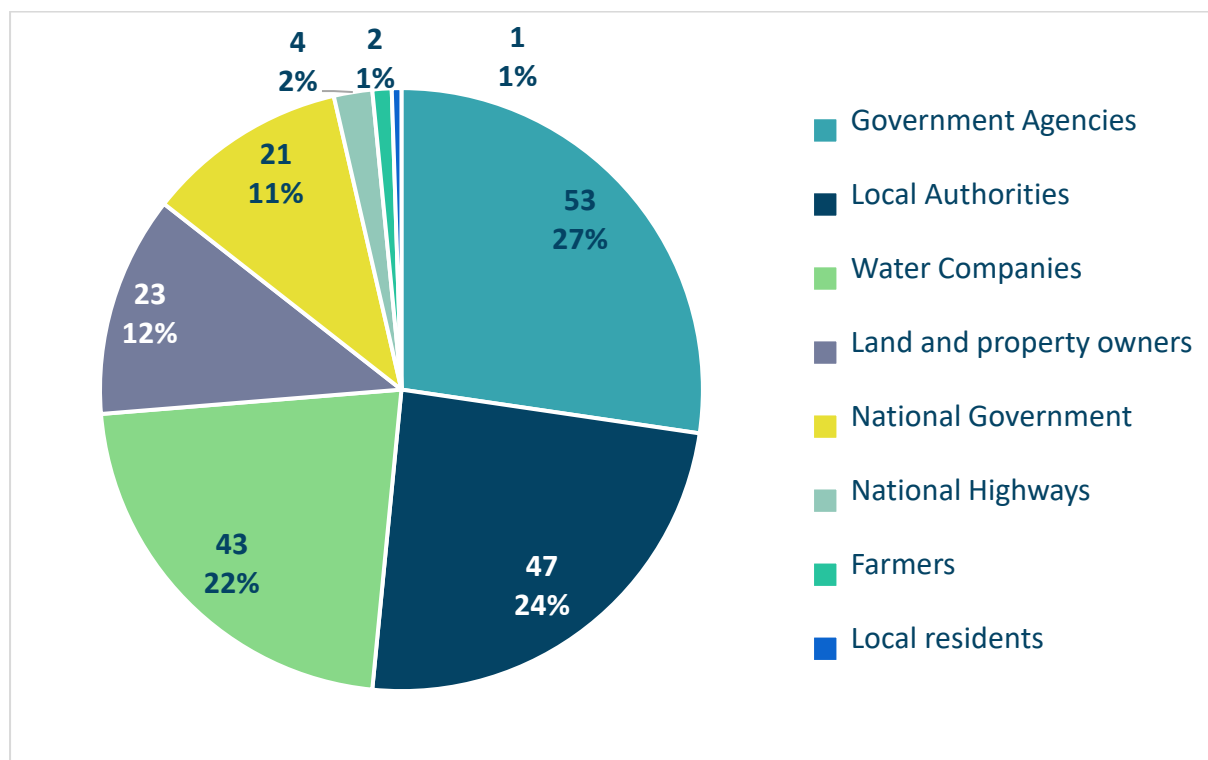


Figure 13 - Perception of where responsibility lies for flood management in Pang Valley.

Most respondents believe that responsibility lies with government agencies, local authorities, and water companies. This is a point we could potentially focus on with information dissemination, ensuring that during a flood event residents have a clear idea of the responsible party, and where to turn for advice. 12% of respondents thought that land and property owners held some responsibility for flood management, a higher proportion than other communities.

## Current Flood Management Actions and Initiatives

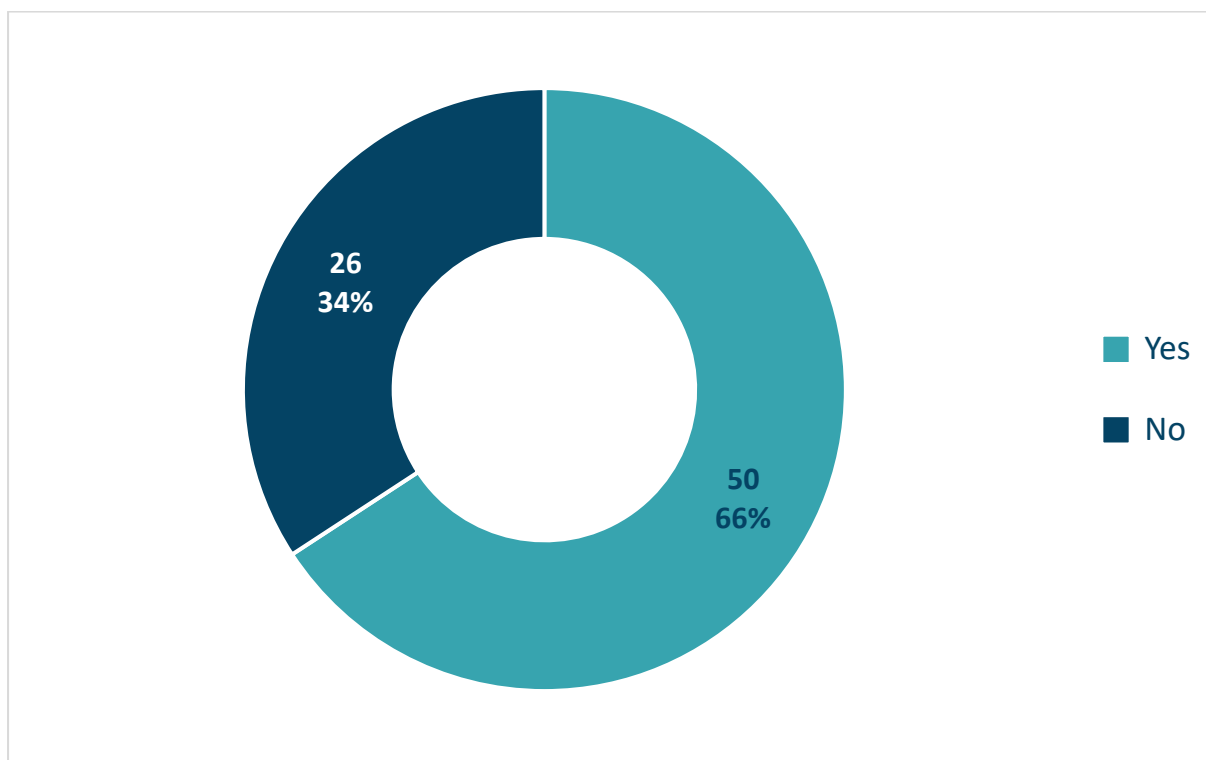


Figure 14 – Whether respondents are aware of the existence of individual actions or initiatives conducted by them or others to manage flooding in Pang Valley.

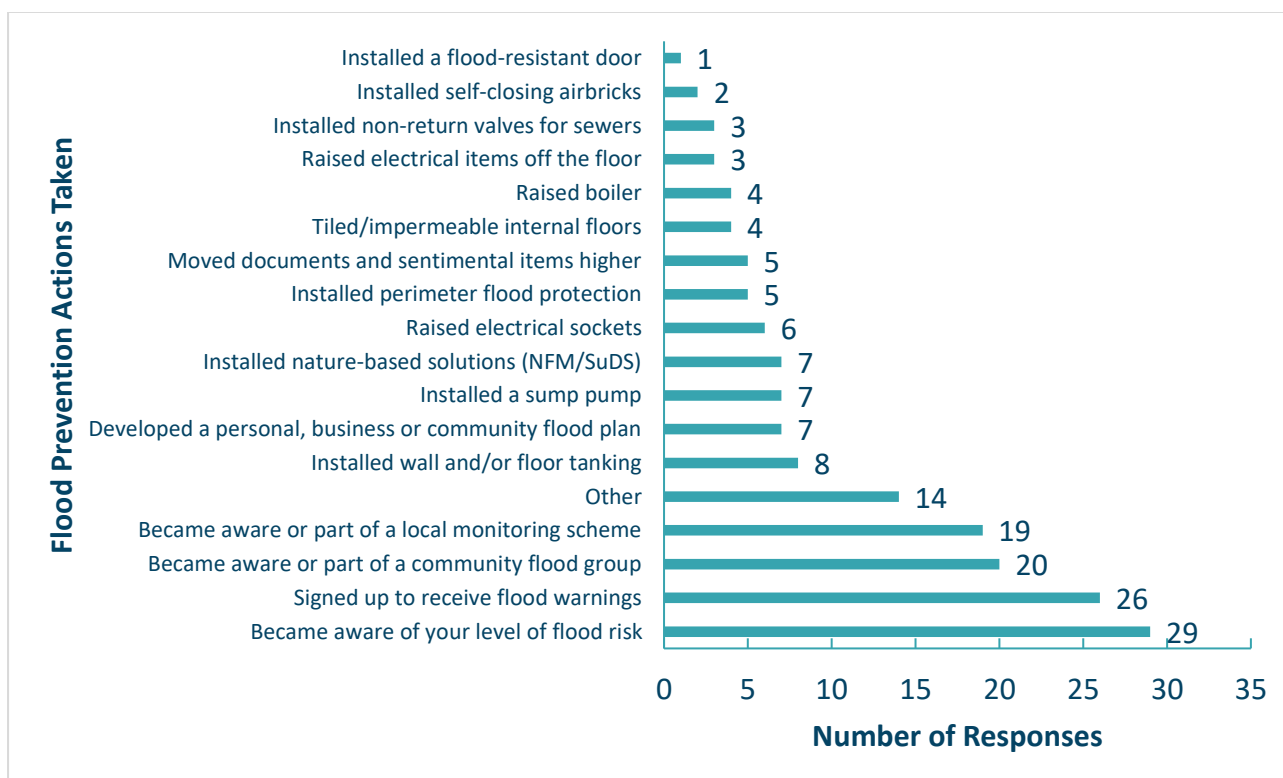
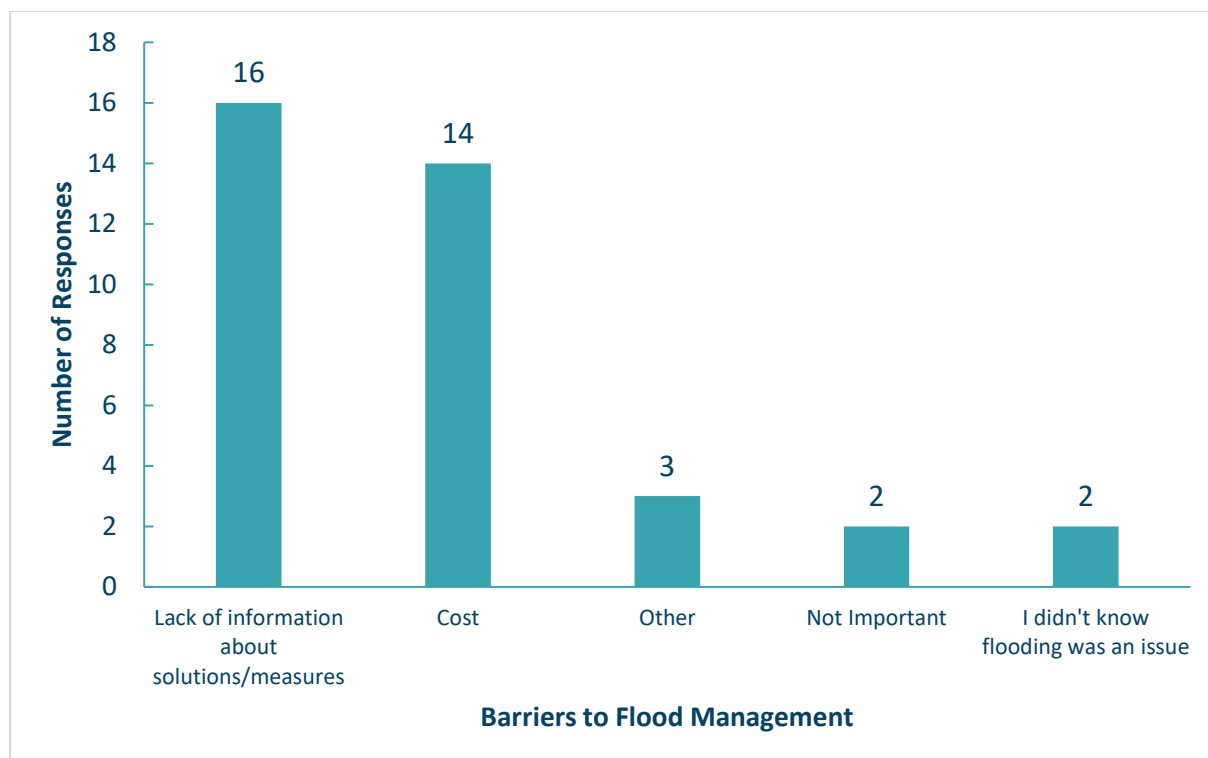


Figure 15 - Individual actions taken by respondents to reduce or manage flood risk in Pang Valley.



**Figure 16 - Potential reasons given by respondents to explain why they think that there are no actions or initiatives around them to reduce, manage or adapt to flooding in Pang Valley.**

66% of respondents are aware of some actions and initiatives being undertaken to manage flooding in the Pang Valley. The most common of these all surround individual awareness raising, such as becoming aware of flood risk, signing up for flood warnings and awareness of community groups and local projects. If participants responded that they were not aware of anyone taking part in measures to manage flooding, the proposed reasons for this were mainly a lack of easily accessible information about solution options, and cost of measures. Other responses included some pond clearing, and other mitigation measures taken by the local authority.

## Local Projects

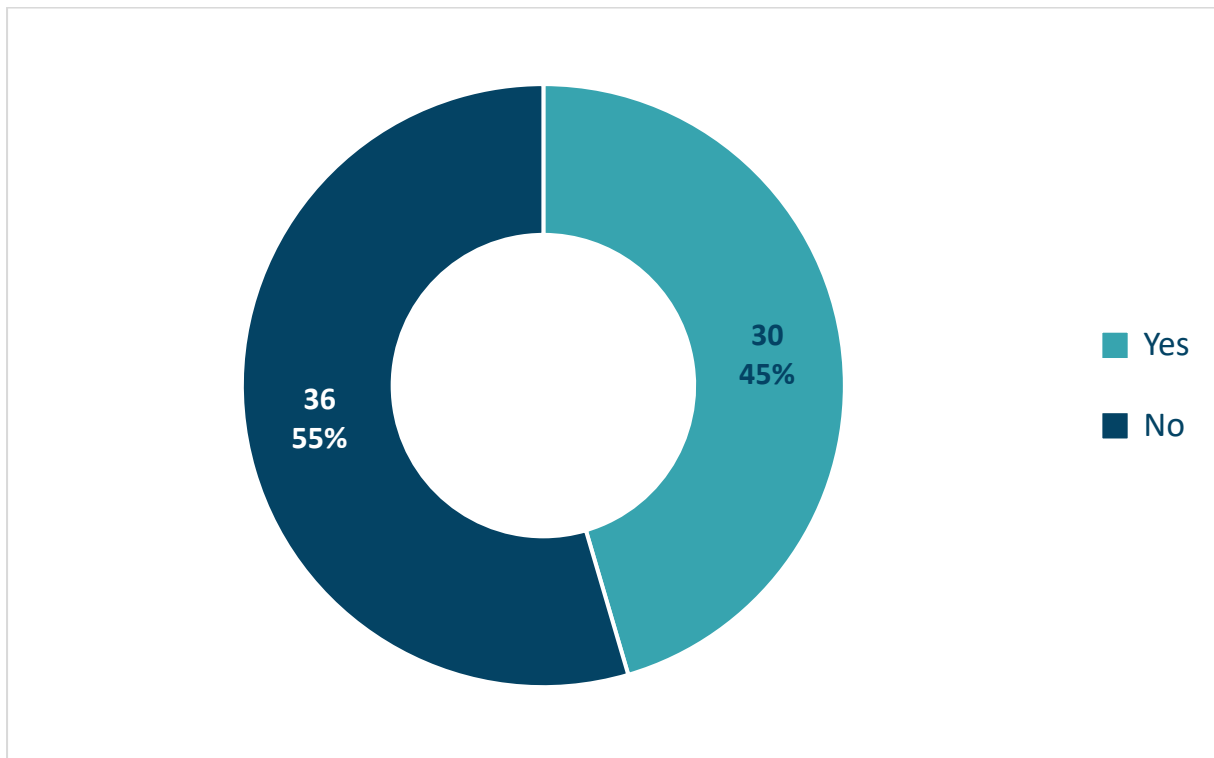
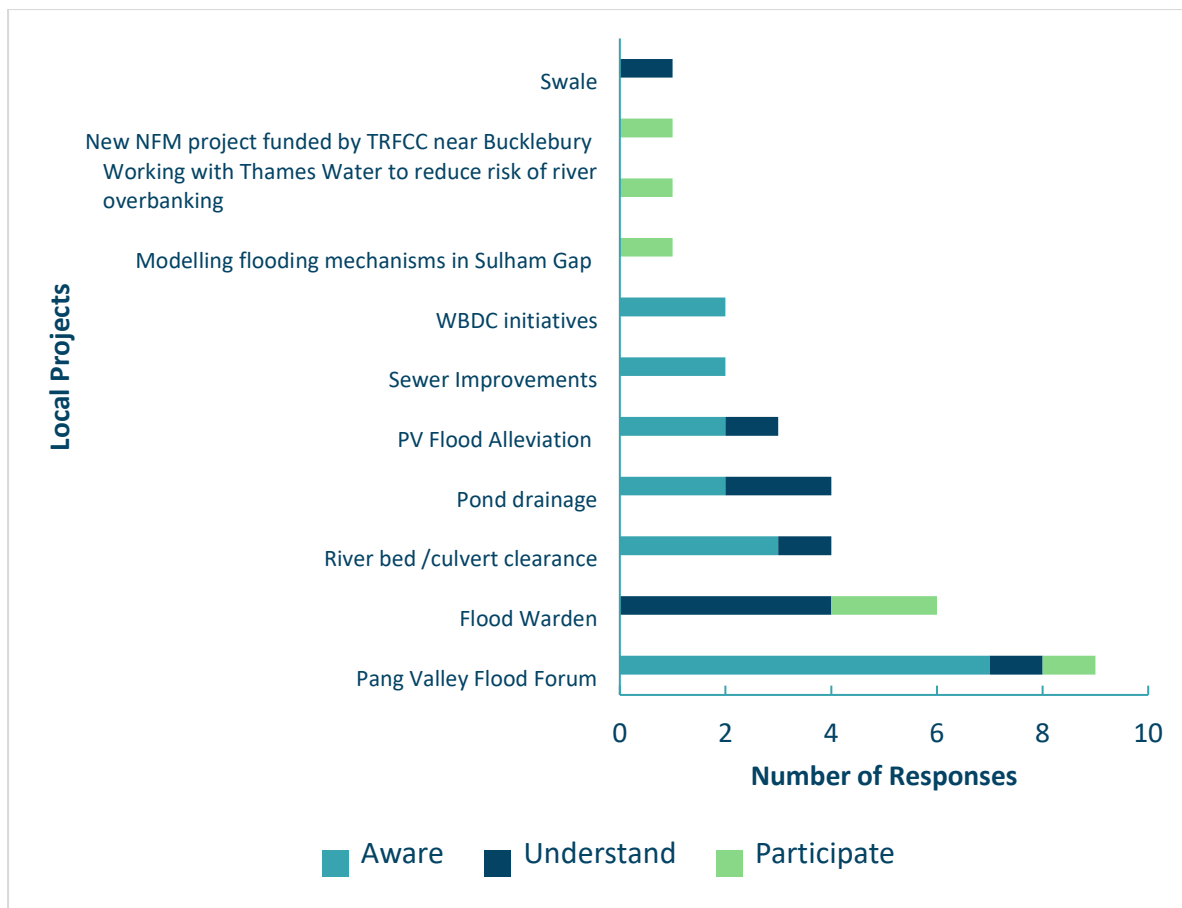


Figure 17 – Whether respondents are aware of any local projects to reduce or manage flooding in Pang Valley.



**Figure 18 - Local projects in Pang Valley and level of involvement of respondents through open-text response.**

45% of respondents were aware of local projects taking place to manage flooding in the Pang Valley. Those with awareness of projects were most likely to name the Pang Valley Flood Forum, to which most were aware of, with only a few respondents being involved to the extent of understanding and participation. This presents an opportunity for the community at large to become more involved and connected with the Pang Valley Flood Forum, as this represents a valuable resource to the community.

The next most ubiquitous answer was the existence of a flood warden to take part in various projects, with most respondents understanding this initiative. Multiple other small projects and works were mentioned, a few general awareness and some to greater detail from involved participants. The project should aim to coordinate with the groups running these initiatives to learn more about the actions and coordinate activities.

## Requests for Additional Support

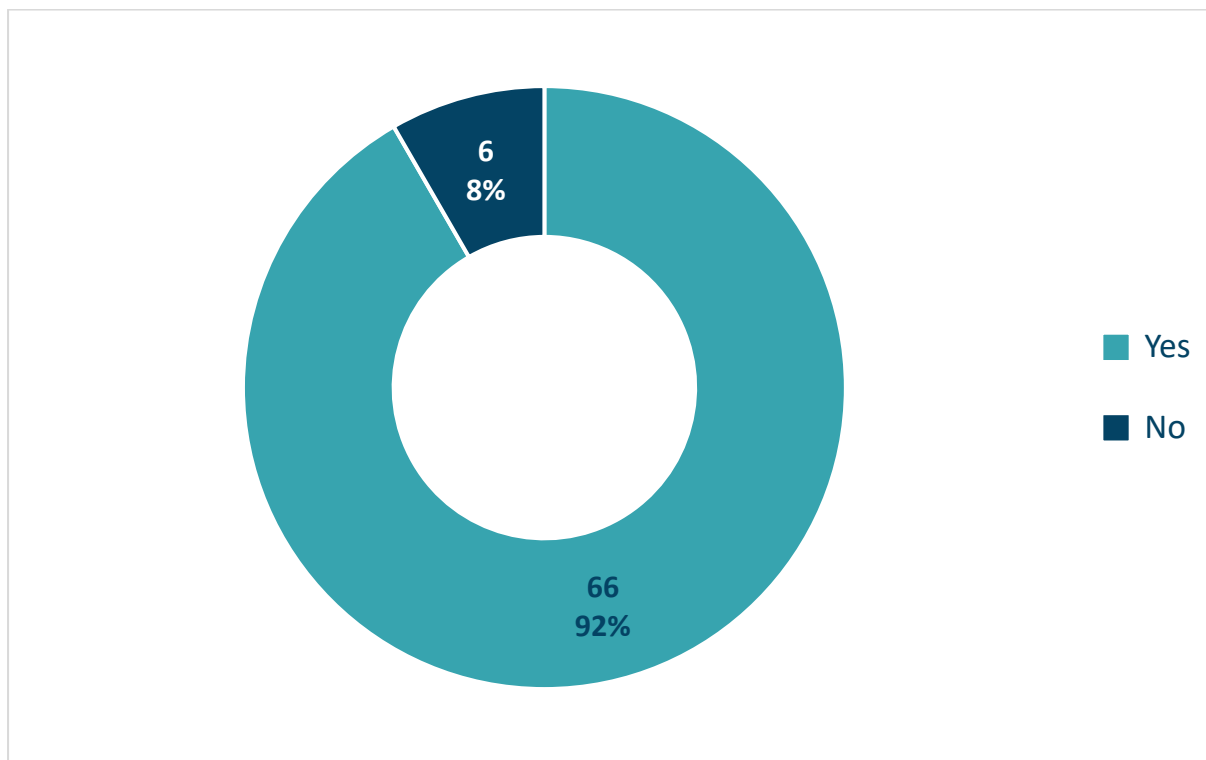


Figure 19 - Respondents' opinion as to whether additional actions or initiatives are needed to reduce, manage or adapt to flooding in Pang Valley.

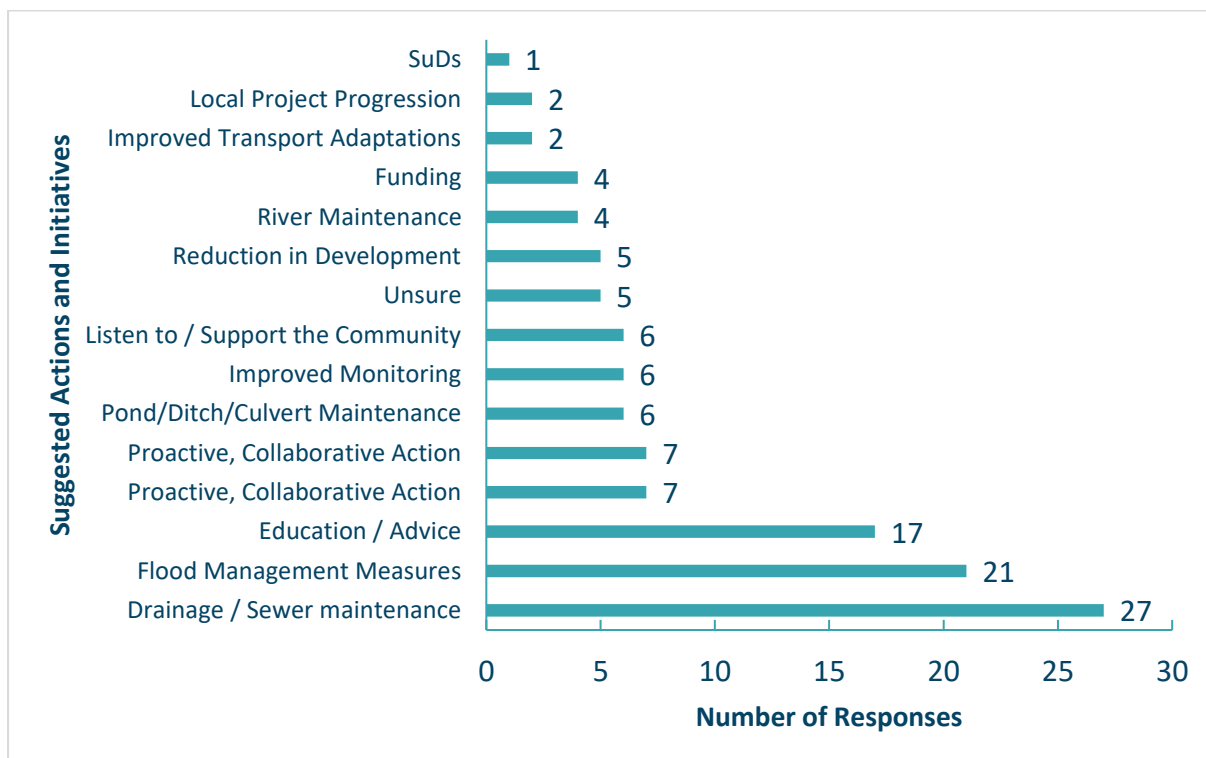
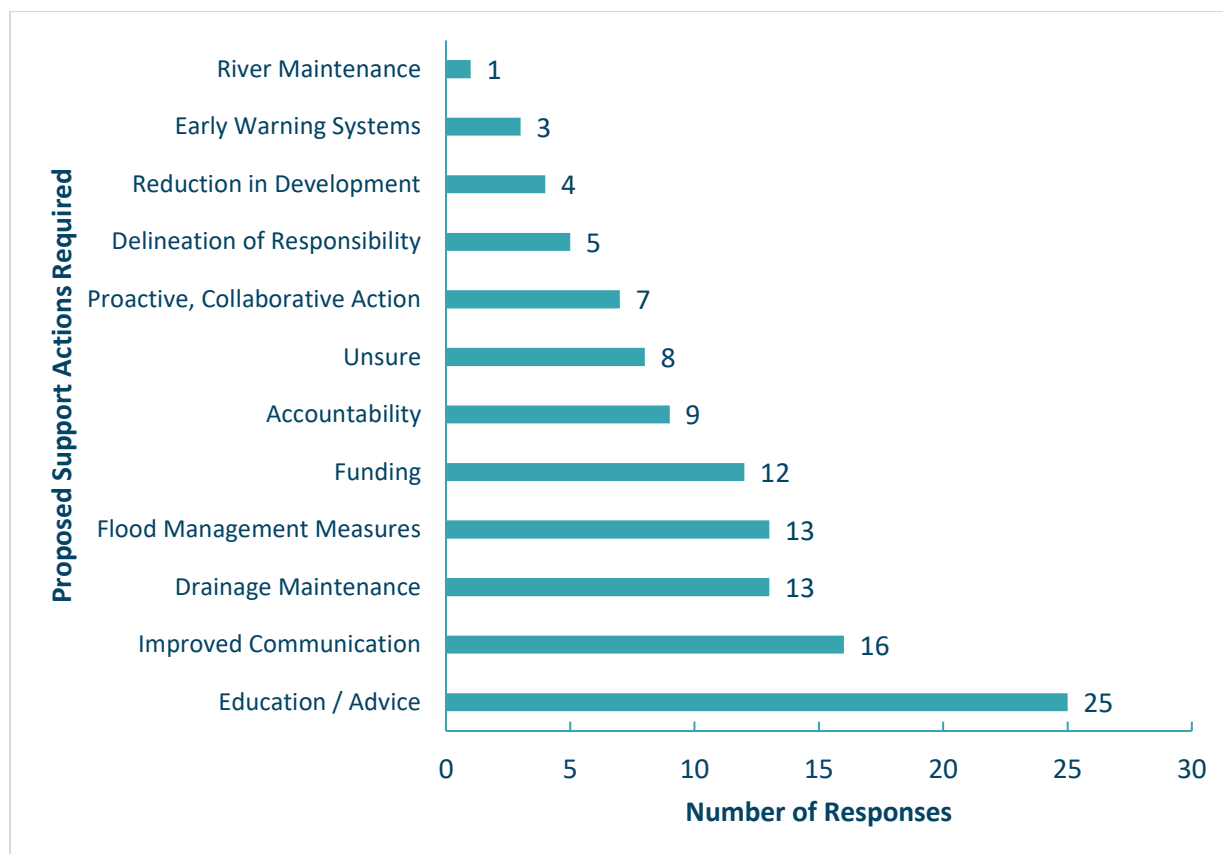


Figure 20 - Additional actions and initiatives that respondents in Pang Valley are in favour of conducting to help them to reduce, manage, or adapt to flooding, through open-text response.



**Figure 21 - Support actions suggested by respondents to be considered by external authorities or projects that would support Pang Valley to manage flood risk, through open-text response.**

92% of respondents believe that further support would be beneficial in helping the community of the Pang Valley be more prepared for future flooding. The most suggested action suggested that the local authority could undertake to alleviate flooding is maintenance and improvement of the sewage and drainage systems, with many respondents reporting that drains get blocked often and require more frequent cleaning. This is also related to the need for stricter development rules, with multiple respondents stating that the current sewer system will be unable to cope with the new planned developments.

Following this, the suggestion to implement more physical flood management measures such as plans to re-route water when levels are too high, similar to a relief channel. Many responses hope for more pressure to be placed upon Thames Water to accept accountability for their water networks and make necessary improvements.

Education and advice are also a support measure that is frequently requested: the community wants to know what their options are in terms of flood protection, and how to access funding. An emphasis is also placed on prompt and transparent communication: residents want it to be clear which party is responsible for different types of flooding and to be kept up to date with any developments in the community.

## Opportunities for Further Community Involvement

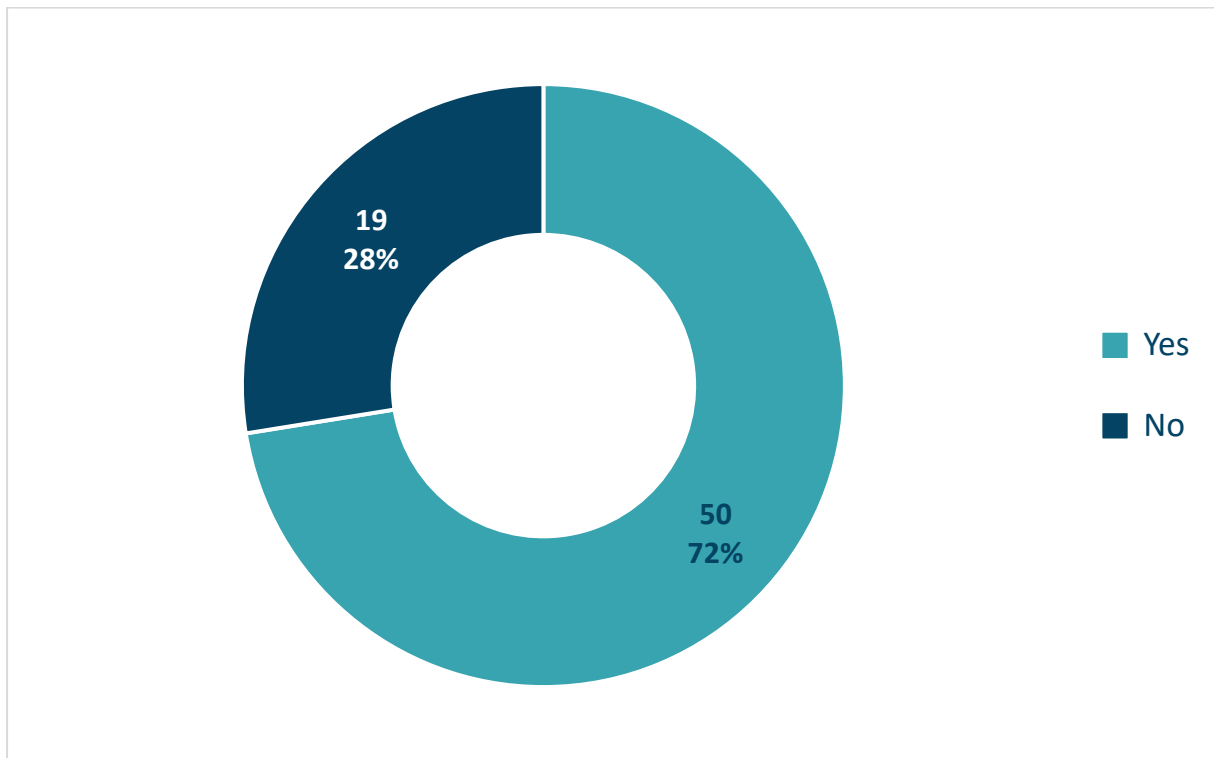


Figure 22 - Level of interest in receiving information and/or working together to understand, manage and mitigate groundwater flooding in Pang Valley.

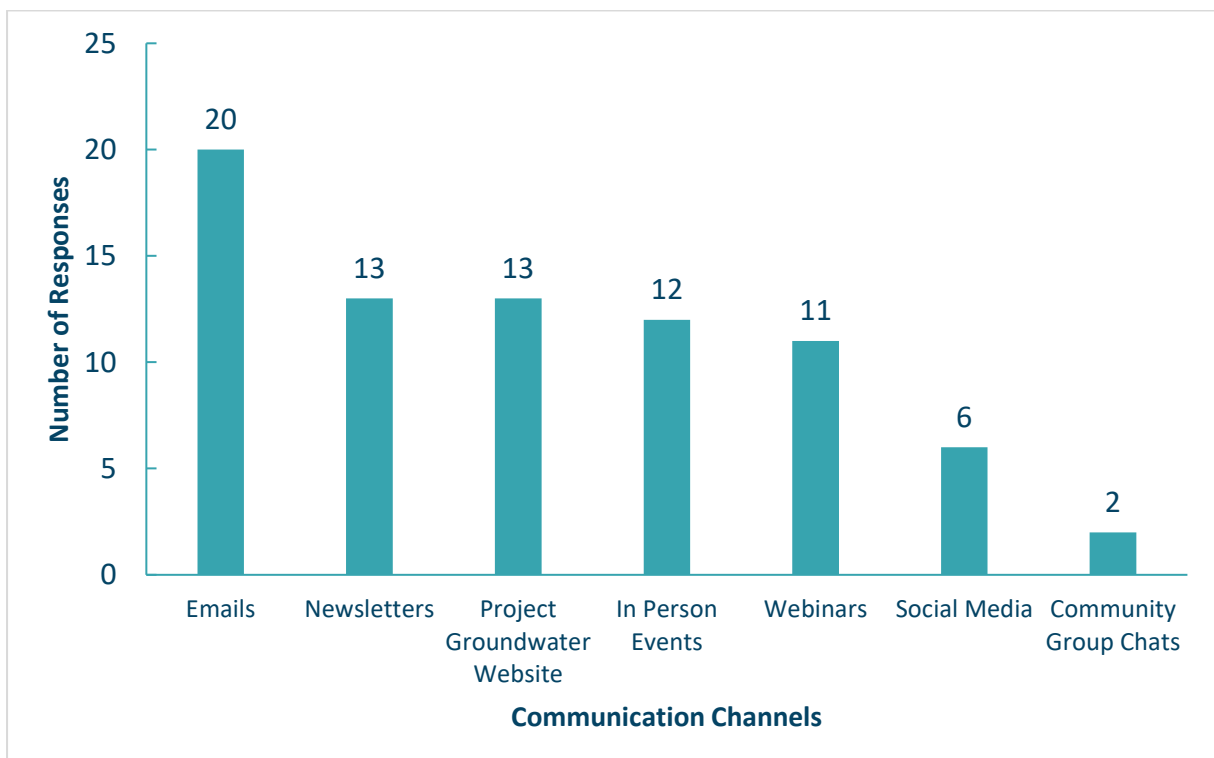


Figure 23 - Communication channels that respondents would prefer to be used to stay informed about local flood reduction and management initiatives.



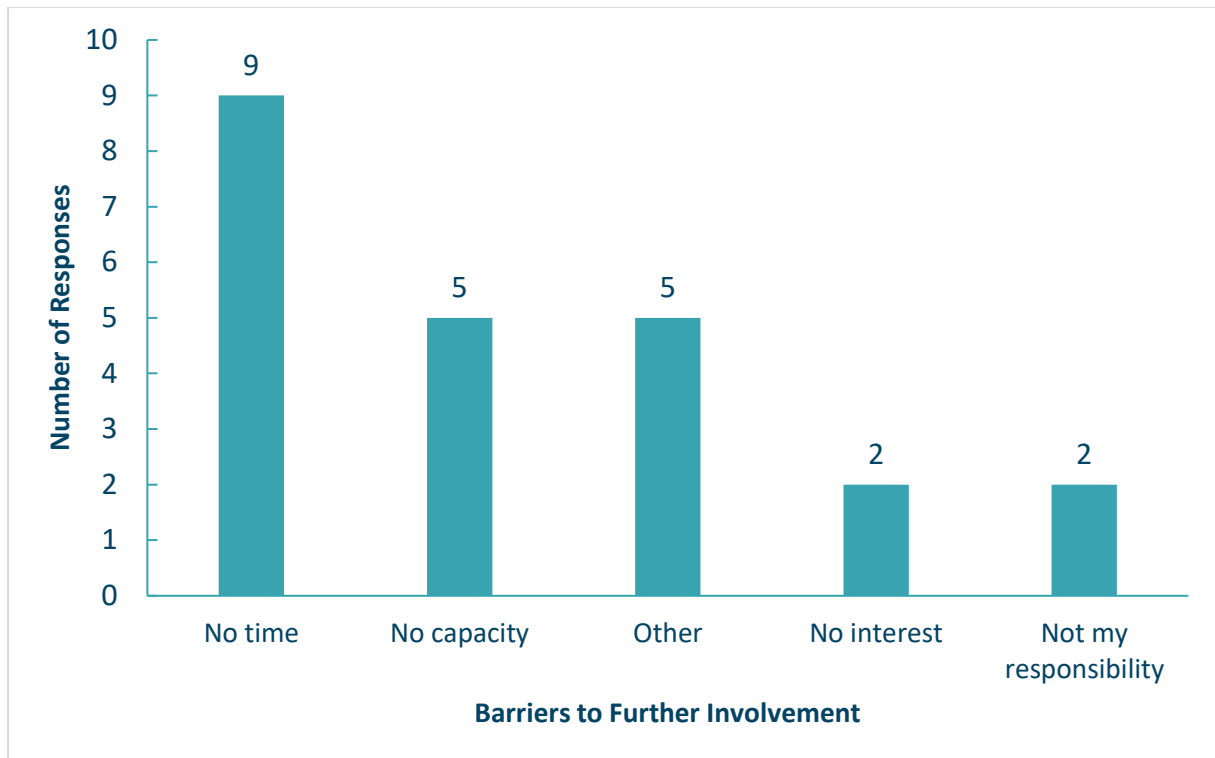
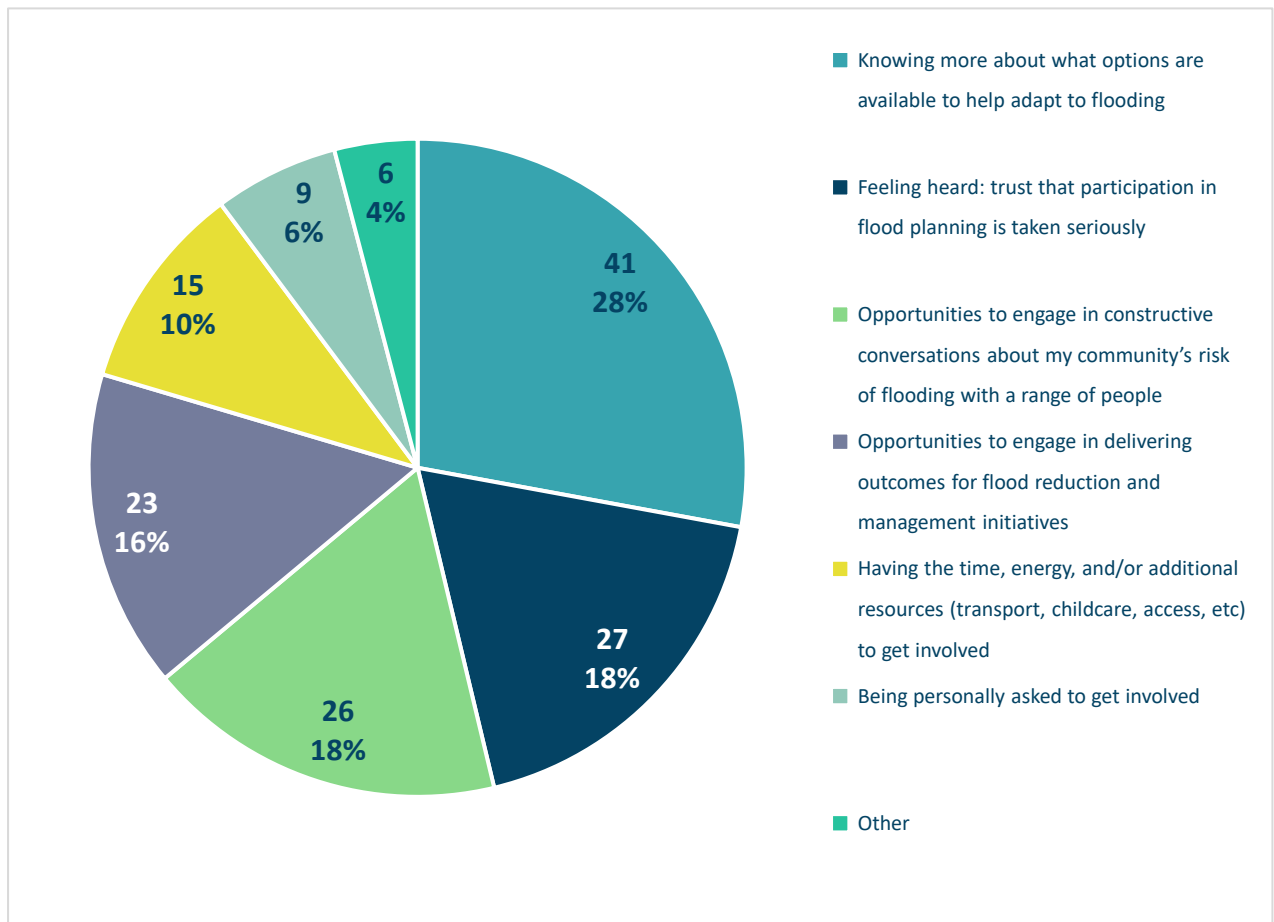


Figure 24 - Reasons why some respondents do not want to become further involved with Project Groundwater.



**Figure 25 - Factors which may encourage members of the Pang Valley community to take a more active role in flood management initiatives.**

72% of respondents are interested in taking a more active role in flood management in their community, with most stating that they would like to receive email and newsletter updates, and to access information through the project website. Many respondents are also interested in attending online or in-person events, which allow for more participation and a more involved discussion to take place.

If participants responded that they did not want to become more involved with the project, this was mainly due to a lack of time or capacity. Other responses included that they are already involved in some way through the local council, being able to research measures by themselves, and living on a hill.

In order to be encouraged to take a more active stance, having access to more information about the potential strategies available is the most important for this community, followed by being given a platform and being listened to, and having the opportunity to engage with flood management through constructive conversations to delivering outcomes.

## Recommendations

**Table 1 - Concluding recommendations for future engagement in Pang Valley.**

<b>Recommendation</b>	<b>Detail and Justification</b>
<b>Build on existing high levels of community engagement in relation to flooding, to widen the reach of the project and associated aims.</b>	<p>Pang Valley had a high frequency of survey responses at 85, with 65 respondents completing the survey fully. Many survey responses also showed clear levels of understanding and expertise around flooding, and the existence of existing enthusiastic and involved groups and initiatives.</p> <p>This knowledge will be important for the project to incorporate, while coordinating engagement and delivery with other notable high profile flood initiatives already taking place in the area, such as the Pang Valley Flood Forum.</p>
<b>Ensure effective collaboration with the community by prioritising listening to their needs.</b>	<p>Many survey responses from this community were detailed and precise, with in-depth local knowledge about the flood mechanisms and the solutions required in Pang Valley. This represents a positive opportunity for collaboration, ensuring that future engagement maintains clear communication and active listening to the community and their suggestions, taking their expertise into account.</p>
<b>Ensure that future engagement activities and communication covers the four villages within the boundaries of Pang Valley.</b>	<p>Engagement may require multiple in-person events to be scheduled, covering each village, and communications such as using local newsletters may need to cover multiple publications to cover the full boundaries of this community.</p> <p>Logistics and coordination may present a challenge, as the community boundary for the project comprises of four separate villages. The survey was advertised in both the Compton and West Ilsley newsletters, and it would be valuable to research if such resources would be available for East Ilsley and Hampstead Norreys.</p> <p>During in-person engagement activities, three of the four villages were visited on the same day. The team conducted engagement outside of the Hampstead Norreys Community Shop, inside the West Ilsley Village</p>

Hall, and outside the village hall in Compton, spending about two hours at each venue.

It was noted that the number of community members the team was able to interact with was low, and as such it reiterates the need for strong organisation and clear advertisement of a public meeting place where members from each village can gather, or allocation of a longer period of time to engage with each village to ensure that all areas of the community are covered.

**Ask engaged community groups such as the PVFF how the Project can best help their existing initiatives.**

It is important to explore and identify the best courses of action for the Project to take in order to present the most value in increasing resilience in Pang Valley, given the existing initiatives and organisation surrounding flooding in the area.

It will also be important to manage expectations while collaborating with the community. The project has already started to build relationships with key stakeholders from the Pang Valley Flood Forum and attended a meeting where the project leads had the opportunity to give a presentation, sharing the aims and scope of the project. It will be important to continue to collaborate going forwards and ask the group how the project can best help them.

### 3. Conclusion

---

This survey work has given us a strong foundation on which to build future engagement plans and approaches throughout the remainder of Project Groundwater, helping us to build our understanding of the current state of play when it comes to groundwater flooding in the nine pilot communities. The results show common threads between communities: experience and knowledge of flooding is common within each community, and there is still a lack of understanding among communities around the specifics of groundwater flooding. This confirms the relevance and utility for engagement work to be conducted as part of Project Groundwater, to utilise local knowledge and expertise in the development of Project outputs, to raise awareness about local groundwater flooding risks and measures among communities, and to establish appetite for future engagement and collaboration.

The results also show wide diversity between communities. The differences in the number of survey responses received for each community is partly due to the different dissemination opportunities received and undertaken. The number of survey responses can also be seen as a proxy for the level of existing engagement and community involvement in flood issues in the community, rather than being reflective of the size of the community. This variation encourages us to assess results within their community context and highlights the need for community-specific approaches to engagement for Project Groundwater.

Greater relationship building (between Project Groundwater and local stakeholders) will be crucial going forward. Pursuing ongoing conversations and developing new connections will enable us to continue developing our understanding and appreciation of local context, the baseline of which we have found through this survey. This will also help us to continue identifying community-specific needs and desires for this Project, both in terms of Project outcomes and engagement methods.

A key consideration going forward will be the research and outreach needed to ensure inclusivity and diversity in our engagement. Segments of the population which are harder to reach will need to be identified and considered throughout all engagement plans, to ensure that collaboration is truly inclusive. This will involve building on the existing demographic results received through the survey, by conducting additional research to identify vulnerable or underrepresented groups (through looking at census data and mapping this using GIS for example), as well as brainstorming effective methods to engage with these groups (examples could include making sure to visit less-represented areas, or using specific communication tools). An Environment Agency equality assessment will also be conducted, in conjunction with the upcoming Engagement Plan(s), and this should help to structure this consideration.

Subsequent engagement will need to incorporate awareness-raising about the differences between groundwater flooding and other types of flooding, as well as an introduction to the practical measures that can be undertaken to manage or adapt to groundwater flooding. These two topics seemed to be points of confusion which were

often brought up during engagement, and therefore their understanding should be promoted.

Specific next steps for engagement in each community will vary and will be developed in the upcoming Engagement Plan(s), drawing from these results and identified workstream needs. Given different existing levels of awareness and understanding about groundwater flooding, we predict some communities and/or specific stakeholder groups within communities will require more initial awareness-raising about groundwater flooding, while others may benefit more from a 'fast-track' engagement approach due to the existence of flood groups and other initiatives. Despite these different approaches, we recognise that it will be worthwhile to organise 'beginner-friendly' awareness-raising sessions in all areas, in order to accommodate to all levels of knowledge, especially as the survey results have most likely over-represented people with existing knowledge and interest in flooding.