



Updating the Thames Estuary 2100 Plan: A summary of online survey responses

December 2020

We are the Environment Agency. We protect and improve the environment. We help people and wildlife adapt to climate change and reduce its impacts, including flooding, drought, sea level rise and coastal erosion.

We improve the quality of our water, land and air by tackling pollution. We work with businesses to help them comply with environmental regulations. A healthy and diverse environment enhances people's lives and contributes to economic growth.

We can't do this alone. We work as part of the Defra group (Department for Environment, Food & Rural Affairs), with the rest of government, local councils, businesses, civil society groups and local communities to create a better place for people and wildlife.

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1. Introduction

The Thames Estuary 2100 Plan (referred to here as the Plan) is an adaptive strategy to manage tidal flood risk on the Thames Estuary, today and into the next century. The 10-Year Review of the Thames Estuary 2100 Plan is the first full review and update of the Plan since it was published in 2012. We are using the latest evidence and collective expertise to revise the recommendations for managing tidal flood risk in the estuary and plan for the future of the tidal Thames riverside.

We can't manage tidal flood risk alone. We need to work with organisations and communities who live and work in, or visit the estuary, to ensure we can plan for future riversides that not only provide protection from tidal flooding, but are also more accessible, provide environmental and amenity benefits and enable sustainable development. In June-July 2020 we ran an online survey to invite those who live, work or use the Thames Estuary to give us their views on the first 10 years of using the Plan, and their priorities for the future.

The aims of the online survey were to:

- Gauge current awareness and understanding of flood risk and climate change amongst organisations and the public in the Thames Estuary, to help us to monitor how the estuary has changed since the Thames Estuary 2100 Plan was developed.
- Collate feedback on the first 10 years of delivering the Thames Estuary 2100 Plan, to learn lessons and help improve our future ways of working with delivery partners.
- Help us understand how we can improve the future Thames Estuary 2100 Plan to make it more accessible, easier to use and to make it easier to find relevant information.
- Understand how well we have engaged with our stakeholders and the communities they work with, and how we can improve this in future.
- Determine the priorities for those living, working or using the Thames Estuary and find out how they want to be involved throughout the rest of the 10-Year Review.

The 10-Year Review has 3 main phases:

1. **The Monitoring Review** (phase 1) began in January 2019 and is due to be completed by the end of 2020. As part of the monitoring review, we have identified 10 indicators of change to assess how the estuary has changed over the past 10 years (including the rate of sea level rise, the condition of flood defences, and the rate of growth and development in the estuary, amongst others). We will publish the key findings of the Monitoring Review at the beginning of 2021.

2. **The Economic Case Review** (phase 2) will enable us to check if the Thames Estuary 2100 Plan is still fit for purpose 10 years on from when it was developed. This includes a review and update of the economic case behind the Plan by our suppliers, who began this work in February 2020. It will also produce an updated set of cost estimates to implement the recommendations in the Plan. This phase will conclude in summer 2021.

3. **Updating the Thames Estuary 2100 Plan** (phase 3) will take the updated monitoring and economic data, and feedback from our engagement with partners, to produce an updated version of the Thames Estuary 2100 Plan, which is fit for the future, based on latest data and evidence, and is more accessible to everyone. We aim to have this ready for Government approval in 2022.

The data collated through this survey will feed into phases 1 and 3 of the 10-Year Review, providing data for the monitoring report on attitudes to flood risk, and feedback on current ways of working which will be factored into the development of the updated Thames Estuary 2100 Plan. This is explained further in 5. Next steps.

2. Promoting the survey

The original online survey was designed to target business and organisations within the area at risk of flooding from the tidal Thames, to help us gauge their attitudes to flood risk and climate change and understanding of the Thames Estuary 2100 Plan. We subsequently had to cancel a series of interviews with residents in the same area, due to the Coronavirus pandemic. As a result, we decided to expand our online survey to enable those who live in or visit the Thames Estuary to share their views.

We ran the survey for 6 weeks (from the beginning of June to mid-July) on our online survey platform, CitizenSpace.

We promoted the survey to councils who have a direct role in managing tidal flood risk in the estuary, as well as public bodies, charities, special interest groups, river user groups, infrastructure providers and members of the public. We did this via email, our quarterly e-newsletter, via Twitter, through internal and external webinars on the 10-Year Review and through external partners' e-newsletters and meetings.

3. Summary of respondents

We received 81 responses in total; 46 from respondents on behalf of an organisation or group, and 35 from those who chose to respond as an individual giving their personal views. Table 1 below shows a breakdown of the type of respondents who submitted a response.

Table 1: Breakdown of respondents by type

Type of respondent	Number of responses*
Anonymous individuals	35
Council	13
Charity	8
Public body or public trust	7
Special interest group	2
River users group	2
Developers	2
Commercial business	1
Infrastructure	1
Flood risk community group	1

* N.B. – some organisations or groups submitted multiple responses to the survey

4. Key findings

4.1. Awareness of tidal flood risk and climate change

In this section we asked both those responding as ‘individuals’ and those responding on behalf of organisations, questions related to awareness and understanding of tidal flood risk and climate change, awareness of the Thames Estuary 2100 Plan, and views on the responsibilities for and willingness to manage tidal flood risk in the Thames Estuary. This was to help us build a picture of current attitudes towards these issues.

For almost all respondents, managing the impacts of tidal flood risk and climate change in the estuary is ‘very important’ to ‘extremely important’. Compared to 10 years ago, 46% of organisations felt that tidal flood risk was more important to the communities that they work with today, whereas 80% felt that climate change had become more important to their communities. This shows a shift in attitudes and an increase in awareness of tidal flood risk and climate change since the Plan was developed.

As part of the 10-Year Review, we monitor 10 indicators of change in the estuary. This data on attitudes to flood risk amongst organisations will be used to support the ‘people, property and infrastructure’ indicator in the monitoring report on the 10 indicators of change.

We asked respondents to rate their awareness of the Thames Estuary 2100 Plan’s existence, as well as their ‘knowledge’ of the Plan (how well they could explain the purpose of the Plan, what it aims to achieve and the actions it sets out for specific areas surrounding the estuary). Awareness of the Plan was mixed among ‘individuals’ and the majority had ‘very limited’ or ‘moderate’ knowledge of it. Organisations had a higher level of awareness of the Plan, with the majority (70%) stating their awareness was ‘good’ or ‘very good’. However, fewer organisations (43%) told us they had ‘good’ or ‘very good’ knowledge of it.

Overall, flood risk management was viewed by ‘individual’ respondents as a task for national or regional authorities to manage. However, it is positive that a 70% of organisations surveyed told us that they have ‘already taken’ (46%) or are ‘planning to’/‘would consider taking action in the future’ (24%) to identify assets at risk of flooding. The most popular options for supporting flood risk management were providing flood awareness and education within the communities that organisations work with, and providing non-financial support to flood defence schemes that protect organisations’ own assets or property. This information is useful to inform our planning for how we can work more collaboratively with these organisations going forwards.

‘NGO’s, landscape architects, ecologists, sociologists, river users, riverside businesses, developers and infrastructure providers to ensure there is joined-up planning and full green infrastructure integration benefitting all stakeholders.’

- Anonymous individual

‘As a Local Authority... has responsibility for ensuring our stretch of river defence remains adequate, while balancing the other complex needs of the riverside. As a Riparian owner and land owner, we have responsibility and interest in ensuring adequate flood defence for our holdings.’

- Council respondent

Individuals and organisations responding supported a range of flood risk management options (and could select more than one answer when asked which options would be ‘unacceptable’), with natural flood management and safely flooding public spaces receiving more support than traditional hard engineering and defence raising. 30% felt that moving defences inland or raising

them by more than one metre were 'unacceptable' options (17% and 13% respectively). This indicates that we may need to raise awareness of why the Thames Estuary 2100 Plan includes these options for managing tidal flood risk in the future. The Plan clearly sets out that, in some places, defences will need to be set back from the river to create more space for water, and that defences will need to be raised in future. These responses show the importance of taking a holistic approach to these improvements; using the riverside strategy approach to ensure future flood defence upgrades are incorporated into wider visions for improving the riverside environment.

'Raising defences by more than 1 metre would mean you would make accessing and enjoying the river much more difficult. It's a 'business as usual' option which in a changing climate is unacceptable.'

- *Charity*

Those who own land or property next to a watercourse (riparian owners) are responsible for maintaining the watercourse and the flow within it. Half of the respondents who declared themselves as riparian owners understood their responsibilities for maintenance, although the majority were unsure what they would need to do if future defence raising is required (with the exception of councils). It is clear that we need to work more closely with riparian owners to help them to better understand what they are responsible for when it comes to managing tidal flood risk for their land or property.

4.2. Improving how we work with delivery partners

This section was only answered by those organisations who have a responsibility for managing tidal flood risk in the Thames Estuary. We asked them to rate their level of responsibility in delivering the actions recommended in the Thames Estuary 2100 Plan for their action zone, and whether they have encountered any challenges to delivery.

The majority of organisations have a good understanding of what they need to do to effectively manage tidal flood risk for their action zone, however, just under half had encountered challenges or barriers to delivering their recommended actions.

'A primary concern is the ability of development proposals to deliver upgrades to the defences in line with Thames Estuary 2100 and allow future access for maintenance/accept liability for future maintenance and the impact of this on viability. A clear public sector funding package needs to be put in place that provides certainty for developers where viability is compromised to prevent development from being stalled or sterilised.'

- *Council respondent*

The main challenges to delivery are a lack of clarity on who is responsible for maintaining flood defences in their area of the Plan, uncertainty on who will fund future flood defence improvements, and the viability of developers including the recommendations in proposals for future developments. We need to provide both councils and developers with better information about future upgrade requirements for tidal flood defences, as well as working together to establish a funding strategy for this work.

The adaptive pathways concept and the riverside strategy approach are two key concepts within the Plan (see the box below for definitions). We asked organisations with a direct role in managing tidal flood risk to what extent they understand the adaptive pathways concept and how familiar they are with the riverside strategy approach. There was a mixed level of awareness of these

concepts across organisations. Challenges experienced by organisations when implementing the riverside strategy approach were cited as lack of resources, lack of collective funding sources, conflicting priorities for different organisations and a lack of responsibility regarding riparian owners. When implementing the adaptive pathways concept, the challenges were uncertainty regarding future planning, lack of clarity and perceptions of increased costs. This feedback will be used to inform the lessons learnt from the first 10 years of implementing the Thames Estuary 2100 Plan, and we will also use it to provide clearer guidance on how to implement these concepts in practice.

Definitions

The **adaptive pathways** concept is used in the Thames Estuary 2100 Plan as a way of ensuring we can adapt to future changes in sea level rise. It sets out a series of possible 'pathways' for managing tidal flood risk in the Thames Estuary, and a decision making framework for switching between pathways, using the most up-to-date projections for future sea level rise and climate change as a basis for those decisions.

The **riverside strategy approach** is advocated in the Thames Estuary 2100 Plan. It promotes early planning by developers, landowners and planning authorities to integrate upgrades to flood defences into wider redevelopment and the social, cultural, environmental and commercial enhancement of the riverside.

4.3. The updated Plan: content, format and layout

We asked both organisations and individual respondents what they would find useful to be included in the updated Thames Estuary 2100 Plan.

Organisations told us that the Action Plan is the section of the current Thames Estuary 2100 Plan that they use the most, with sections on the Plan's background, future flood risk management and current flood risk management also being well used. We need to ensure this information is still available and if possible, more accessible in the updated Plan. We will use this feedback when designing the updated Plan.

When asked about the format of the updated Thames Estuary 2100 Plan, most respondents said they would prefer an interactive, online version with real-time updates. However, a small number of respondents still wanted a PDF or hard copy document.

In terms of content for the updated Plan, the most popular options were actions organised by map location and case studies organised by theme, although there was also strong support for visuals (e.g. for defence raising) throughout the Plan and a way of showing progress to date. In general, respondents wanted a clearer divide between action owners, key information summaries and easier access to the appendixes and supporting data, as well as downloadable geographic information files which could be mapped over their own assets or areas. This feedback will help us to make the content of the Plan more relevant and useable for those with a direct role in delivering its recommendations, and to make it more engaging and easier to use for all stakeholders.

4.4. Feedback on our engagement with others

Finally, we wanted to get feedback on how respondents felt the Thames Estuary 2100 Plan's aims fitted with their work in the Thames Estuary. We also wanted to understand how well we had engaged with them to date about the Plan, how we could improve our engagement with them in future, and their interest in getting involved further in the 10-Year Review.

All 5 of the Plan's aims were relevant to the majority of organisations, with the most relevant being 'managing tidal flood risk' and 'adapting to the challenges of climate change'. The Plan's wider

aims are ensuring sustainable development, protecting the social, cultural and commercial value of the Thames and enhancing and restoring ecosystems.

This supports our ambition to strengthen the wider aims of the Plan through the 10-Year Review, whilst not losing focus on the main aim of adapting to climate change and managing tidal flood risk.

‘All 5 aims are of equal importance and hopefully the plan will be able to move forward on the basis that any one objective doesn't stand in isolation as they are all interdependent and an holistic approach is required’.

- *Anonymous individual*

‘All of these aims need to be taken into consideration in preparing a new local plan.’

- *Council respondent*

The majority of respondents told us they found out about the Plan through another person, whether that was through a colleague, someone at another organisation or through discussions with Environment Agency contacts. This highlights the effectiveness of using our staff and partners to share messages, as well as reaching into communities and engaging with local experts. We will use this feedback to improve how easy it is to review and understand the content of the Plan, and to review how we can improve public awareness of the Plan through our engagement channels.

Most organisations were aware of the TEAM2100 programme, our 10-year programme to maintain and upgrade tidal flood defences, however, there was a mixed level of understanding of what the programme aims to deliver. We therefore need to consider how best to communicate the purpose and objectives of the programme in future to ensure stakeholders, particularly local communities, understand the importance of the work being carried out and how this is contributing to our long term goals to adapt to rising sea levels.

All respondents told us that they welcomed more opportunities to engage with us, providing suggestions such as working with other organisations to share messages, making data more easily available, providing more regular updates, and giving stakeholders further opportunities to comment on and be involved in decision making.

‘We would welcome the opportunity to discuss the long term future for the Estuary. There is an opportunity to build on the existing network of designated sites... and create a larger, wilder and more sustainable natural landscape that works for nature and people in a changing climate.’

- *Charity*

A large number of respondents also expressed an interest in being part of future workshops, focus groups and working groups. This is a really positive message that our partners and stakeholders want to be more involved in the 10-Year Review. We will review our existing engagement tools and channels to ensure that we are reaching our stakeholders effectively and giving them opportunities to contribute to the areas of the review most relevant to them.

4.5. Results analysis

To view the survey results by question, please see 6. Survey results.

5. Next steps

We are currently working on the monitoring report of the 10-Year Review, which will summarise data from 10 indicators of change to show how the estuary has changed in the last 10 years.

The data from the survey on attitudes to managing tidal flood risk and preferred options for alternative ways to manage tidal flood risk will be used to inform the 'people, property, and critical infrastructure' indicator in the monitoring report. In early 2021, we will publish a non-technical version of the key findings of the monitoring report for all stakeholders to access.

We are also updating the costs and benefits of the Thames Estuary 2100 Plan through an economic review. The outputs from both reviews will enable us to review the recommendations for managing tidal flood risk and update the Thames Estuary 2100 Plan to reflect this. The updated Plan is due to be published in 2022, following government approval.

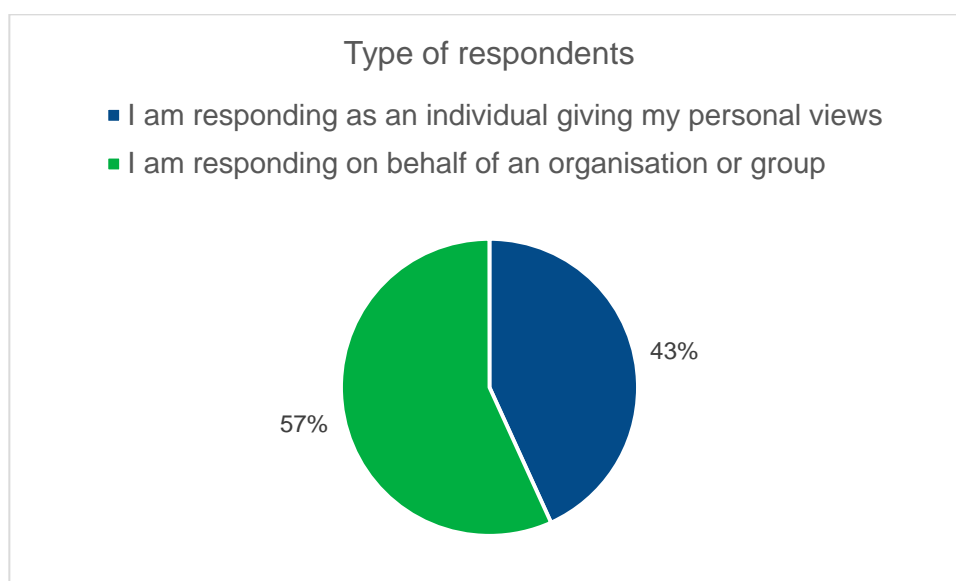
The responses we received from the online survey will be used to inform our engagement with both delivery partners and wider stakeholders as we progress the 10-Year Review. Council partners told us that they have experienced challenges to implementing the Plan's recommendations and ways of working over the last 10 years, and we will be exploring these further in a series of workshops in autumn/winter 2020. We will also use feedback from individual respondents and riparian owners to improve how we raise awareness about the Plan, its wider aims and the responsibilities of riparian owners when it comes to managing flood risk.

A number of respondents told us that they were willing to support the 10-Year Review through workshops or focus groups, working groups or through follow-up meetings with us. We will be in contact with these respondents to invite them to participate in the review based on their preferences.

6. Survey results

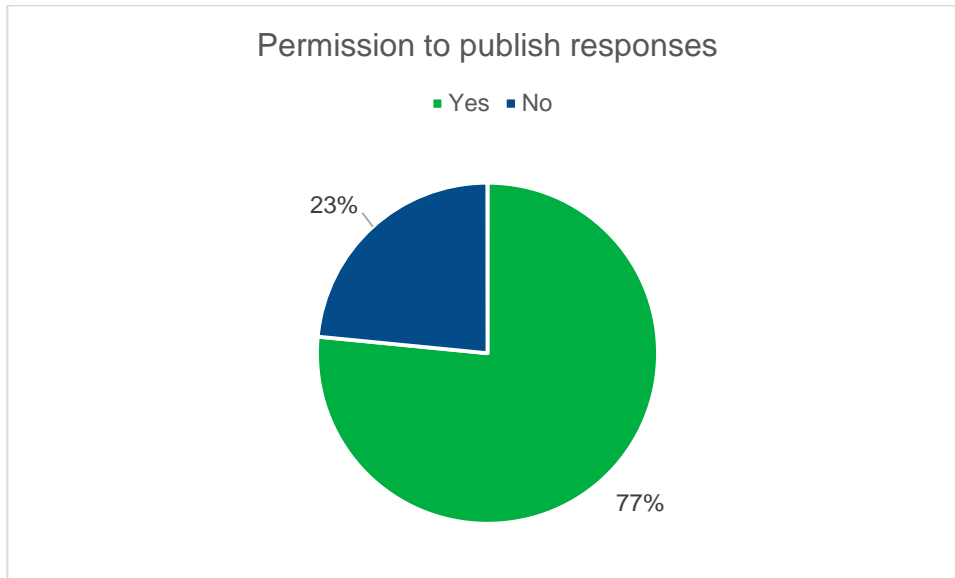
6.1. About you

6.1.1. Question 1: To help us analyse the responses we receive, we'd like to understand more about you



Out of 81 respondents, 57% responded as an 'individual' giving their personal views and 43% responded on behalf of an organisation or group.

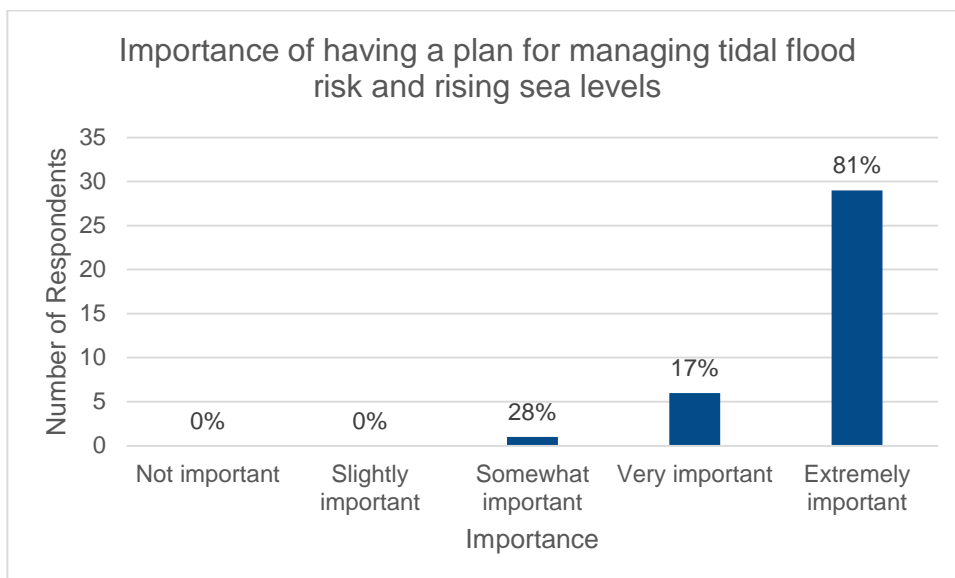
6.1.2. Question 2: Can we publish your response?



77% of respondents said that we could publish their response to the survey.

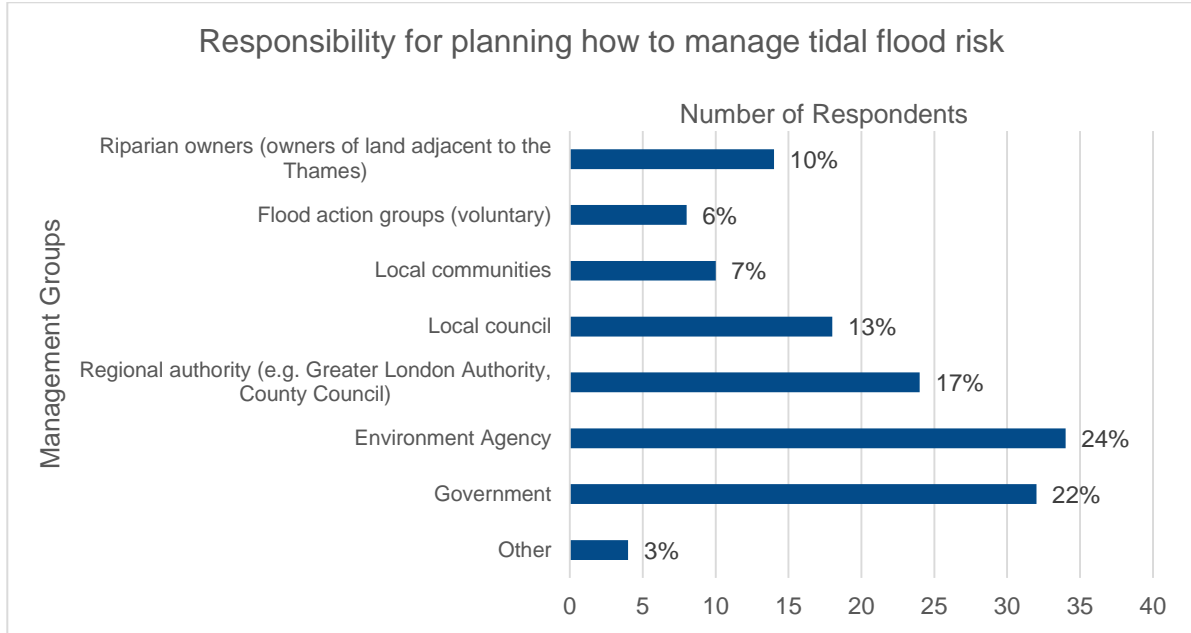
6.2. Tidal flood risk and the Thames Estuary 2100 Plan (for individual respondents)

6.2.1. Question 3: How important is it that we have a plan for managing tidal flood risk and rising sea levels in the Thames Estuary?



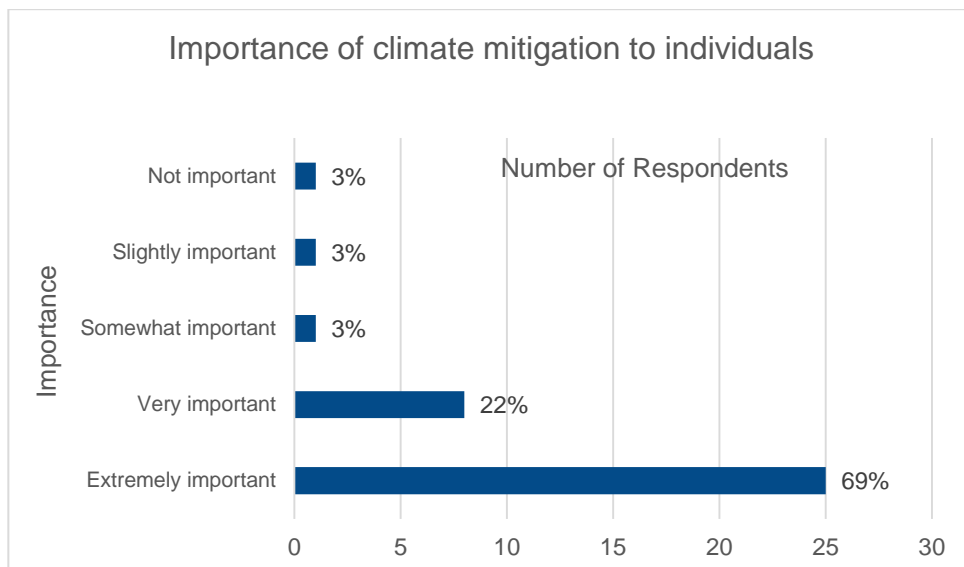
The majority of individuals responding (98%) think that it is extremely or very important that we do have a plan for managing tidal flood risk and rising sea levels in the Thames Estuary.

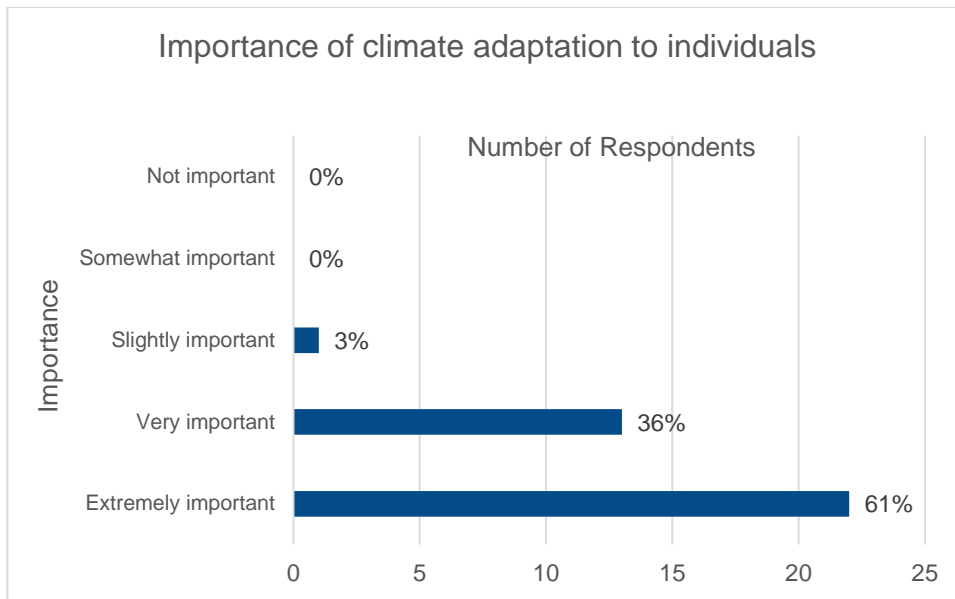
6.2.2. Question 4: Whose responsibility do you think it is to plan for how we manage tidal flood risk and rising sea levels in the Thames Estuary?



Generally, flood risk management is seen by individuals who responded as something for national or regional authorities to manage.

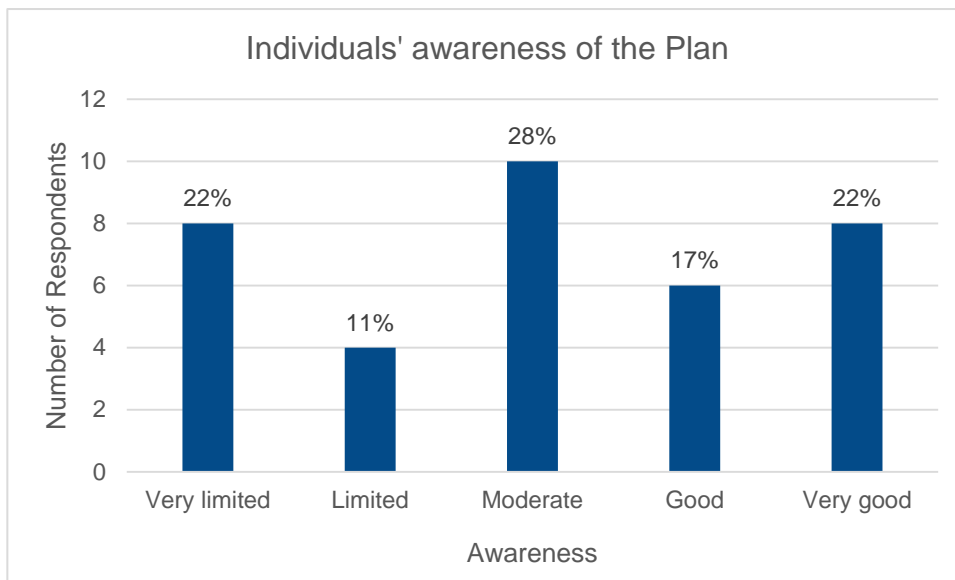
6.2.3. Question 5: How important are climate mitigation (tackling the causes of climate change) and climate adaptation (managing the impacts of climate change) to you?

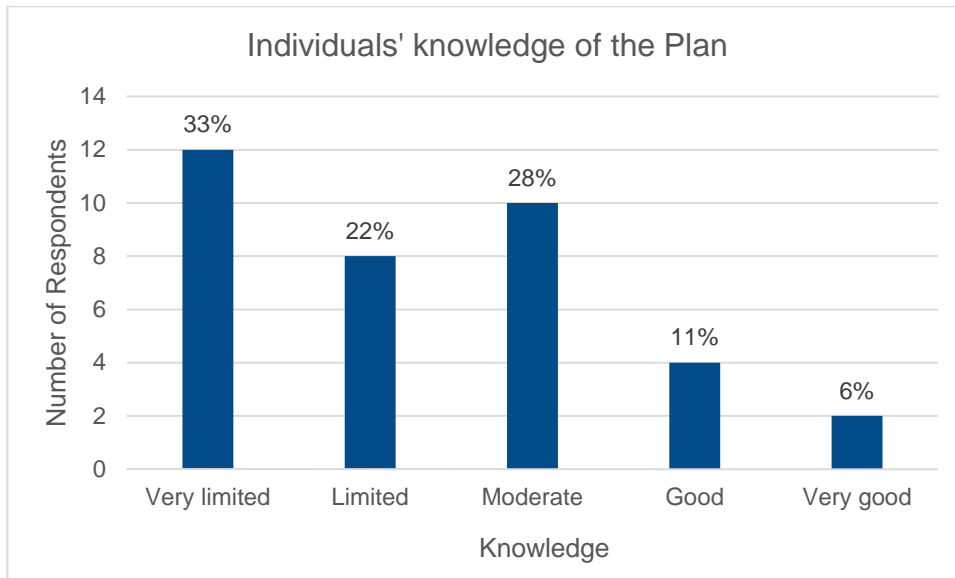




The majority of individuals feel that climate mitigation (91%) and adaptation (97%) are extremely or very important issues.

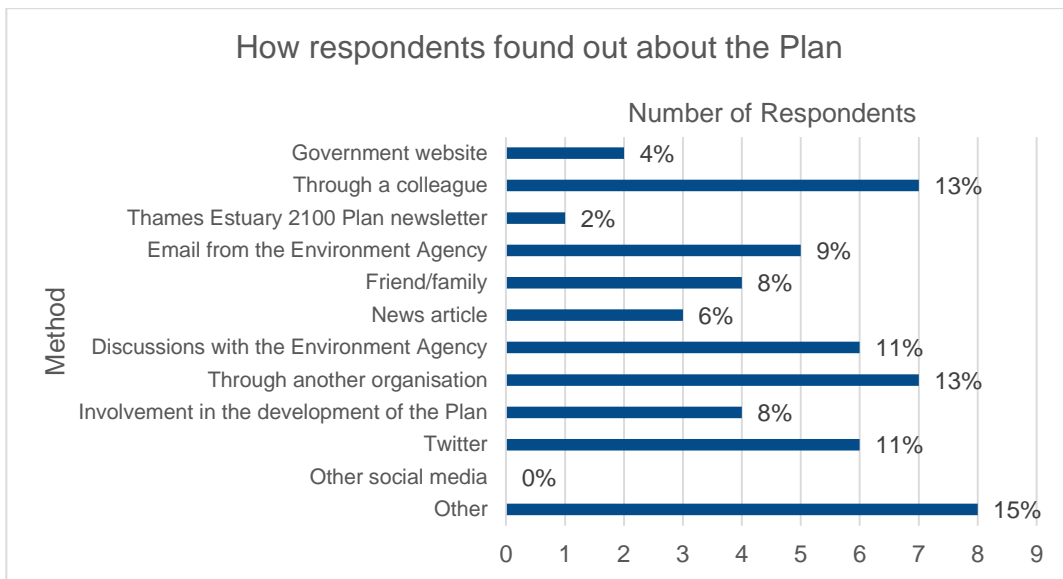
6.2.4. Question 6: How would you rate your current awareness and knowledge of the Thames Estuary 2100 Plan?





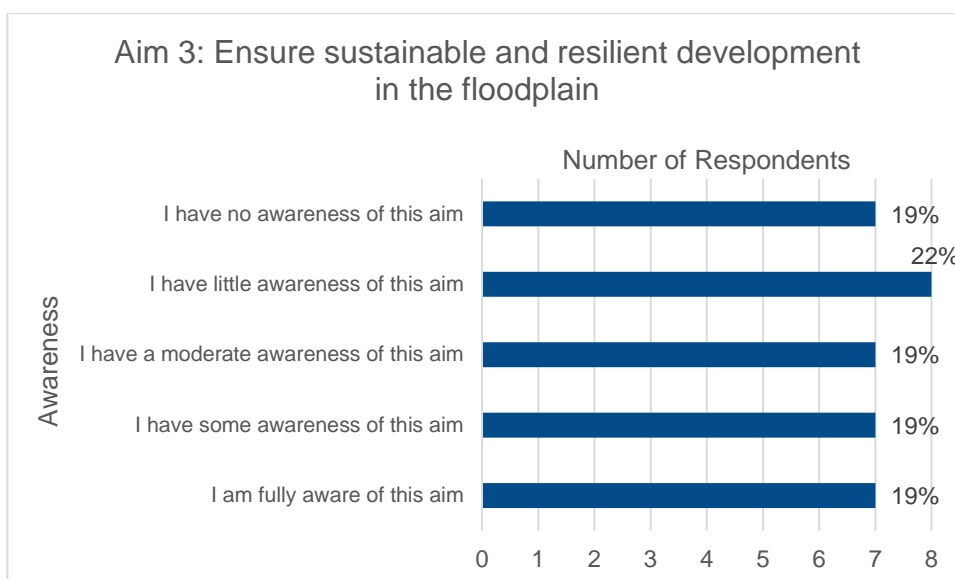
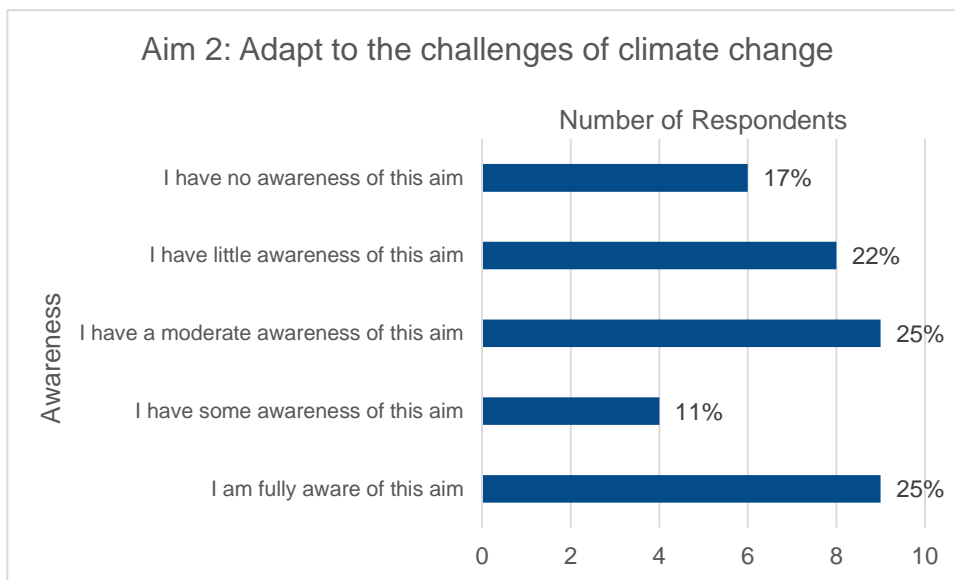
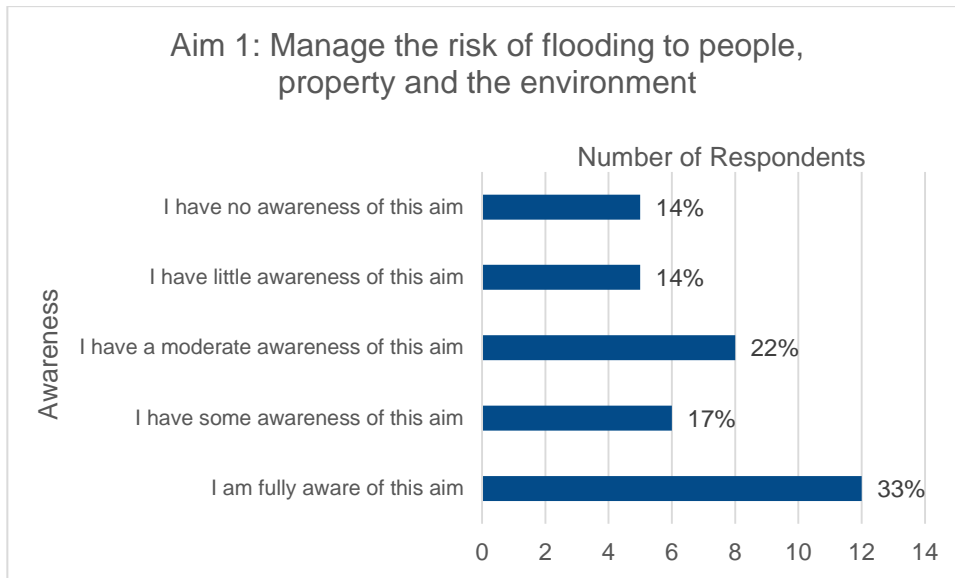
There is mixed awareness of the Plan among individual respondents, and very limited to moderate knowledge (83%).

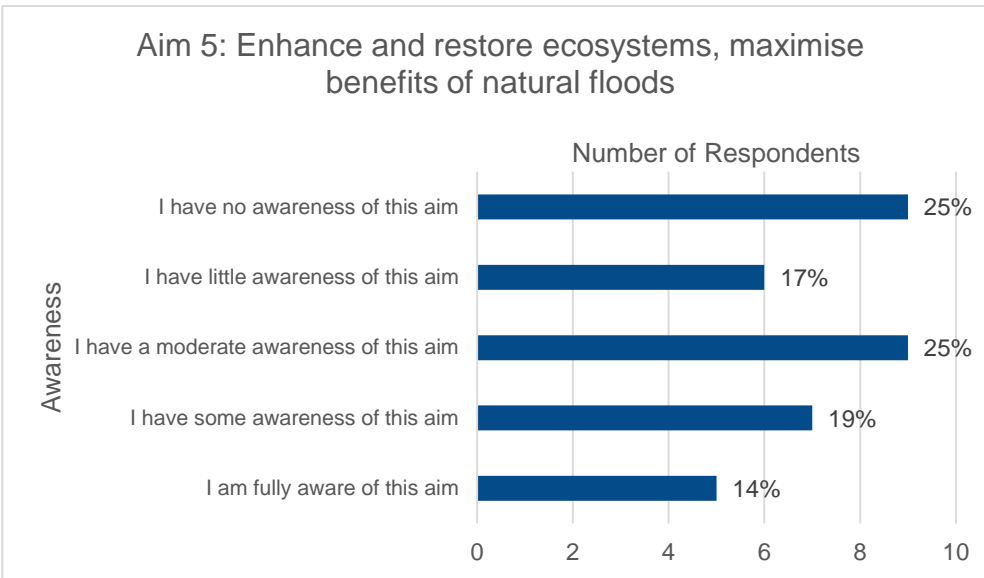
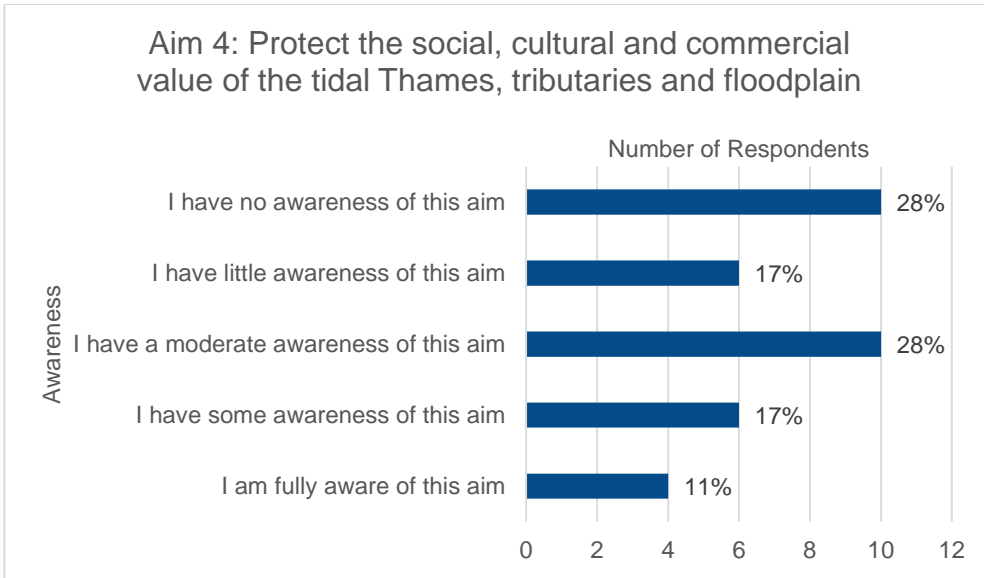
6.2.5. Question 7: How did you find out about the Thames Estuary 2100 Plan?



The most popular source for finding out about the Plan for individual respondents was via colleagues (13%), or via another organisation (13%), followed by discussions with the Environment Agency (11%) and Twitter (11%), whilst the newsletter, website and other social media received very low scores. Those who said 'other' mentioned local flood groups, residents groups, and an MP.

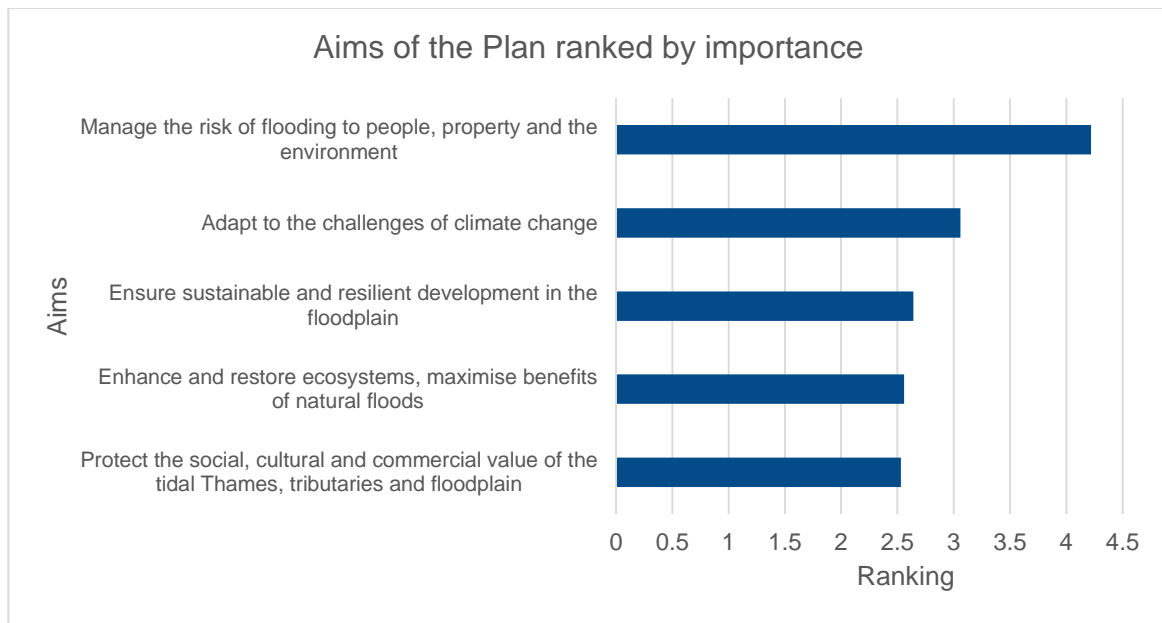
6.2.6. Question 8: How aware are you of the aims of the Plan?





Whilst the most 'well-known' aim of the Plan was reducing tidal flood risk, 50% of individuals had moderate to no awareness of this aim. Fewer still were aware of the Plan's other 4 aims.

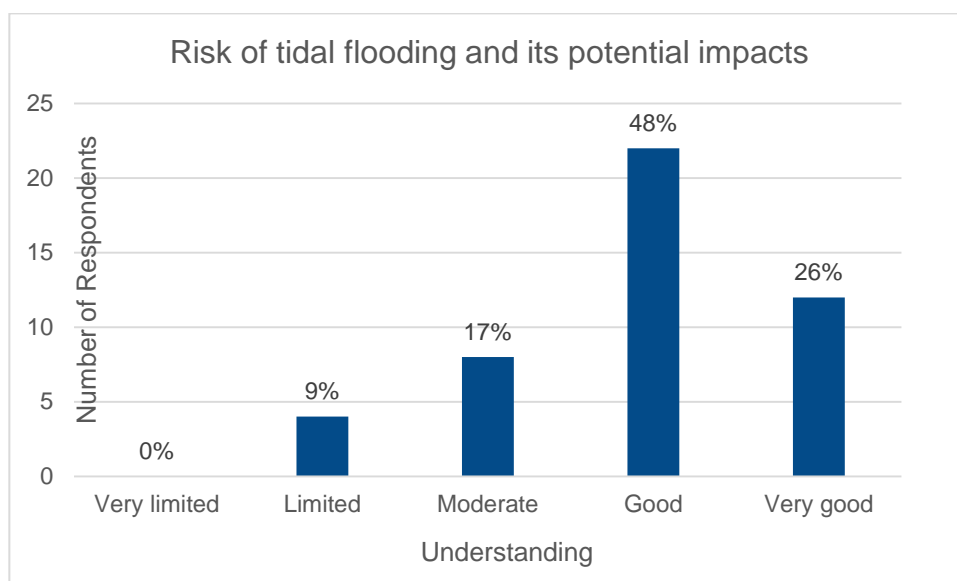
6.2.7. Question 9: Please rank the Thames Estuary 2100 Plan's aims in order of importance to you.

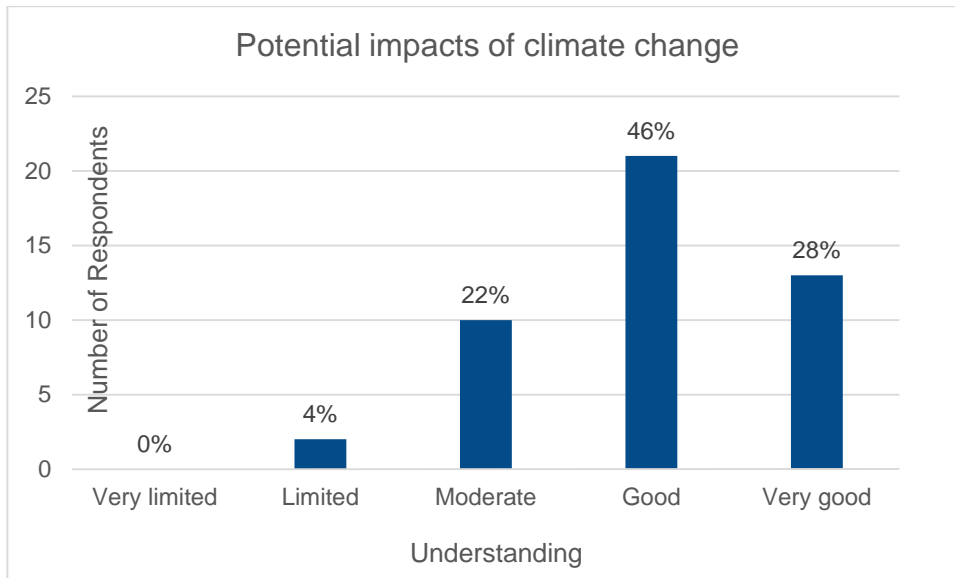


Individual respondents rated tidal flood risk as the most important aim of the Plan, however, the other aims were ranked in very similar positions, with only climate adaptation ranking slightly higher.

6.3. Tidal flood risk (for organisations)

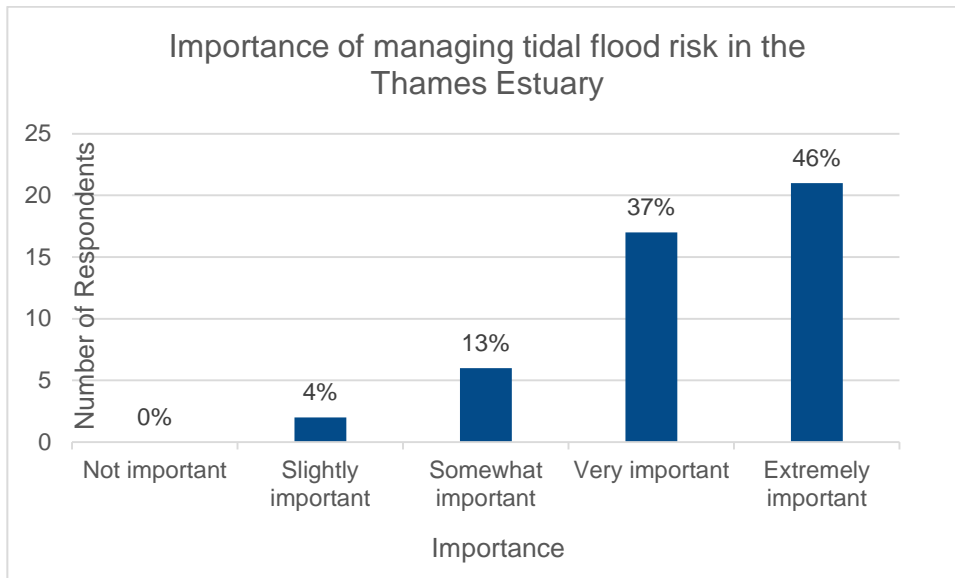
6.3.1. Question 10: How would you rate your current understanding of tidal flood risk in the Thames Estuary and the potential impacts of climate change?

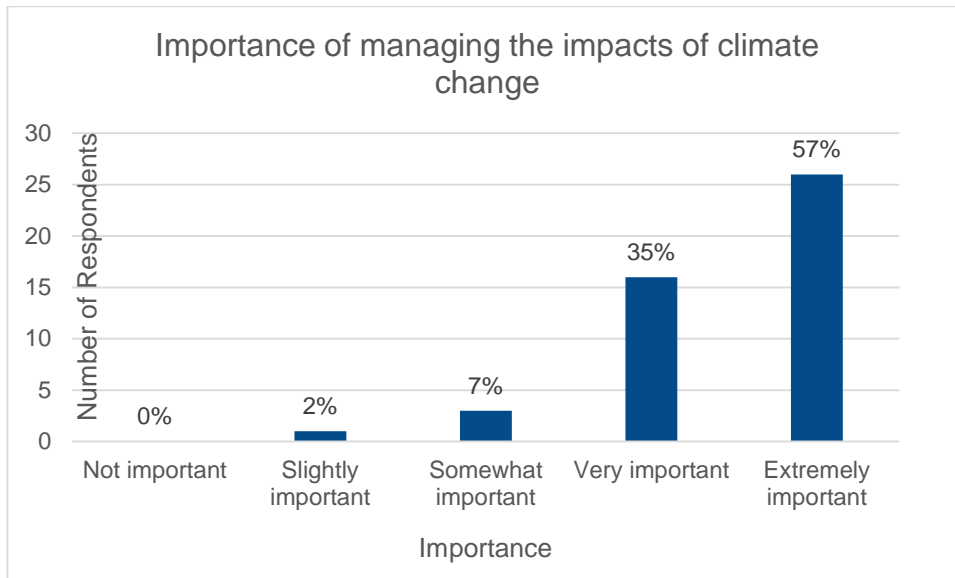




The majority of organisations have a good or very good understanding of the risk of tidal flooding and its potential impacts. Organisations' understanding of the potential impacts of climate change was very similar, with a slightly higher number of respondents rating their level of understanding as very good.

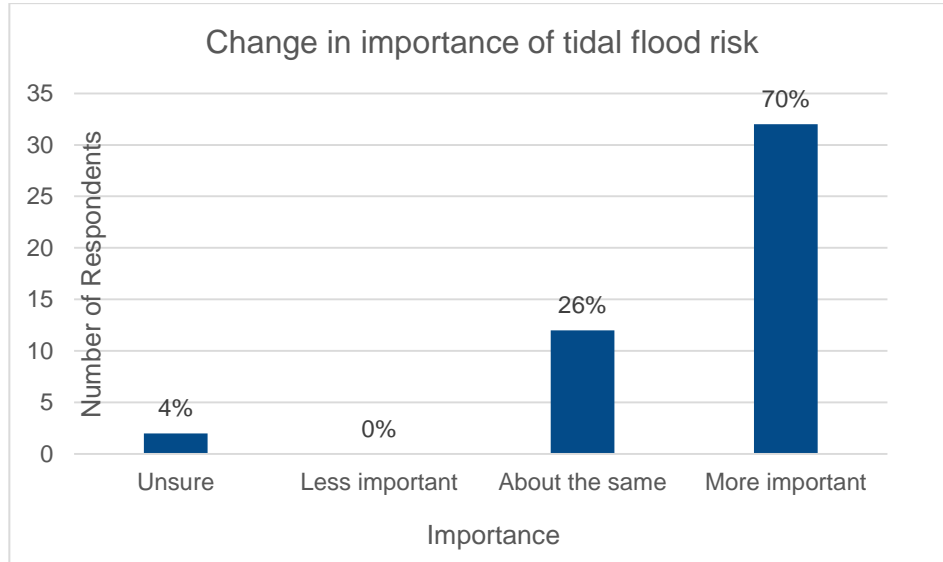
6.3.2. Question 11: How important are the issues of tidal flood risk and climate change to your organisation?

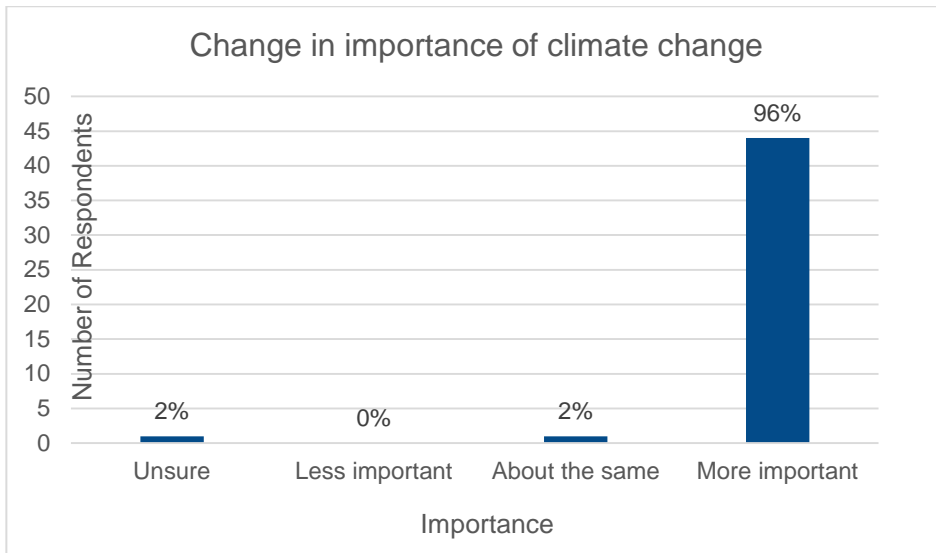




83% of organisations feel managing tidal flood risk is very or extremely important to their organisation and 92% feel managing climate change impacts are very or extremely important.

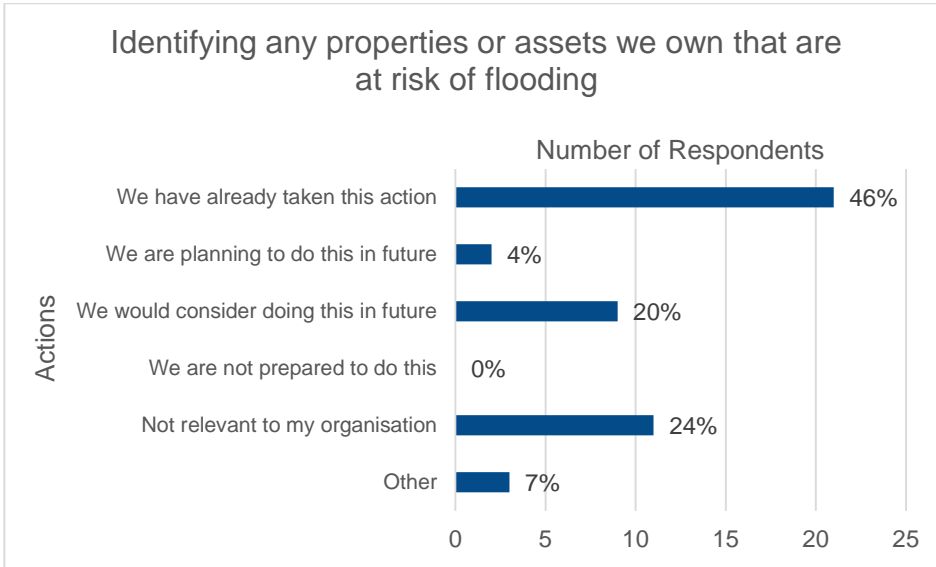
6.3.3. Question 12: Compared to 10 years ago, do you feel tidal flood risk and climate change have become more or less important issues within your organisation?



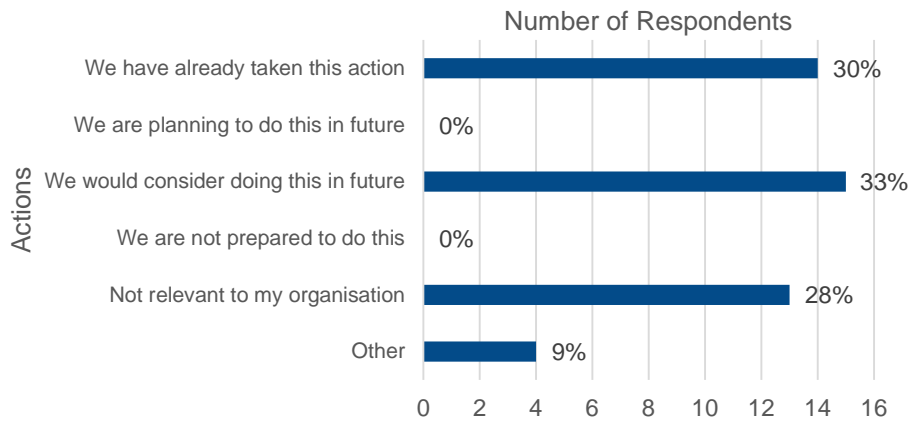


70% of organisations felt that tidal flood risk has become more important over the last 10 years, and 96% felt that climate change has become more important.

6.3.4. Question 13: What action(s), if any, has your organisation taken or would be prepared to take to manage increasing tidal flood risk in future?



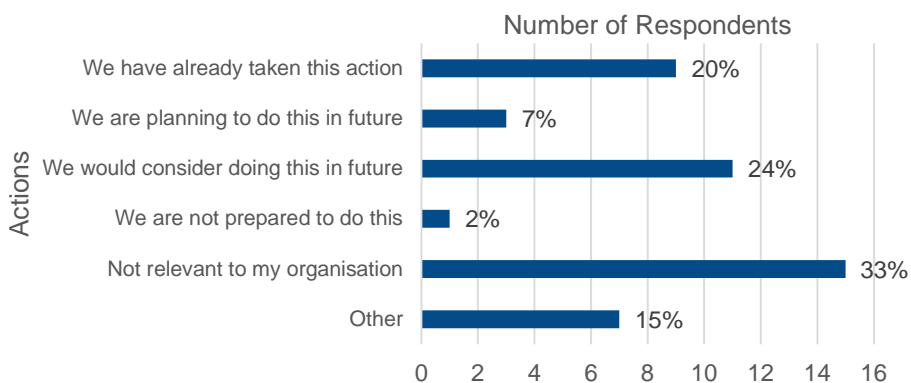
Creating emergency flood plans for those properties or assets



Installing property or asset-level flood protection



Contributing (financially or in-kind) to any flood defence schemes which protect our assets or property



Supporting (non-financially) any flood defence schemes that protect our assets or property

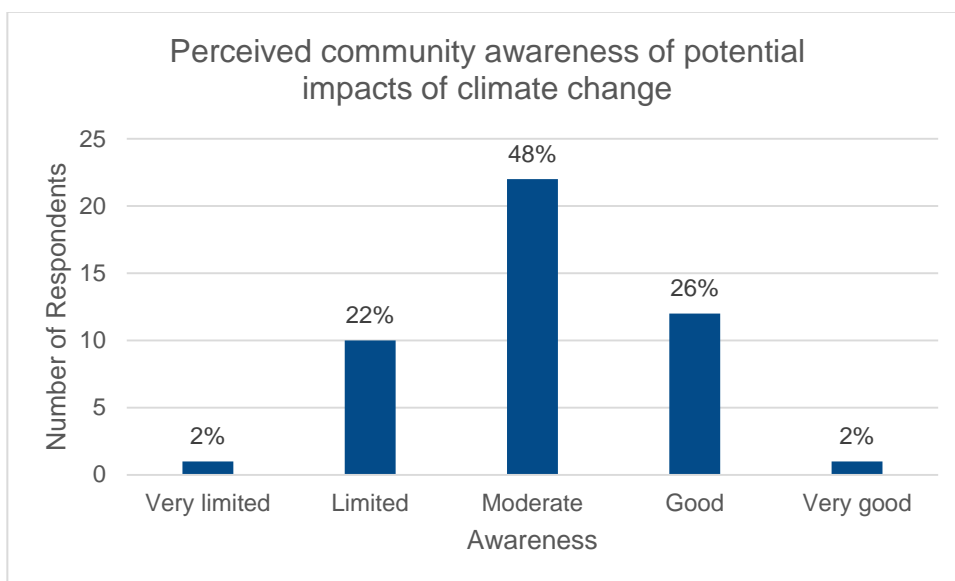
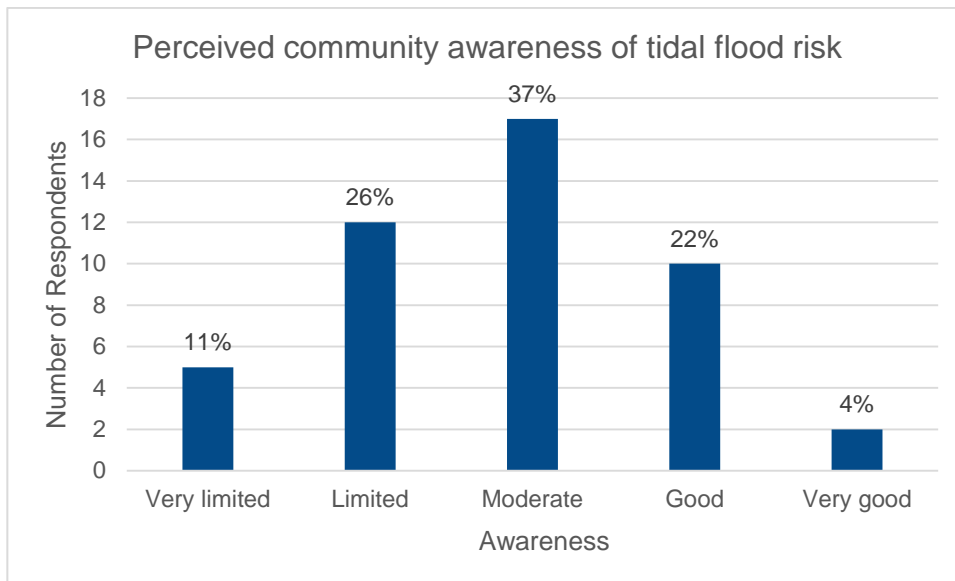


Supporting general flood awareness and education with the communities we serve



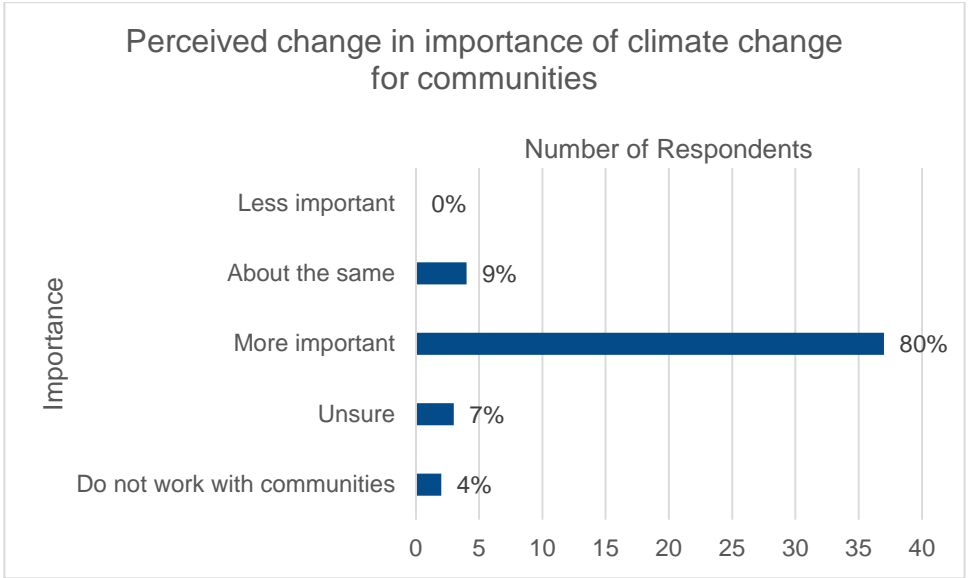
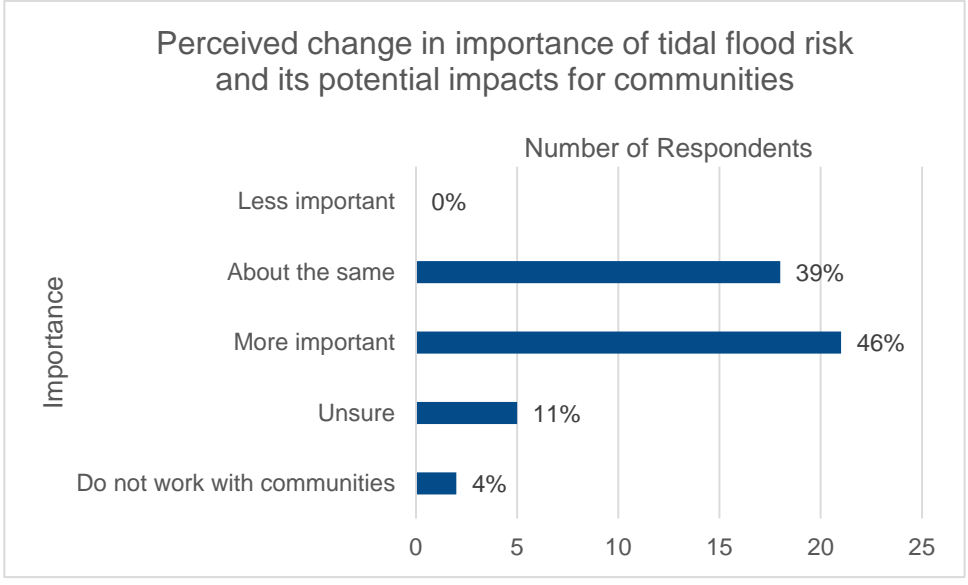
A large proportion (70%) said their organisation has already taken action to identify assets at risk of flooding, are planning to or would consider doing this in future. 63% said they have or would consider creating emergency flood plans in future for those assets. Approximately half of organisations said they have or would consider installing property/asset level protection or contributing to flood schemes protecting their assets. 70% have or would contribute non-financially and 85% would be prepared to support with flood awareness and education within their communities.

6.3.5. Question 14: Thinking about the communities you work with, how aware do you think they are of tidal flood risk in the Thames Estuary and the potential impacts of climate change?



The majority of organisations (74%) felt that the communities they work with have a moderate to very limited awareness of tidal flood risk. Overall, they felt that their communities were more aware of climate impacts, with the majority (76%) having a moderate to very good awareness.

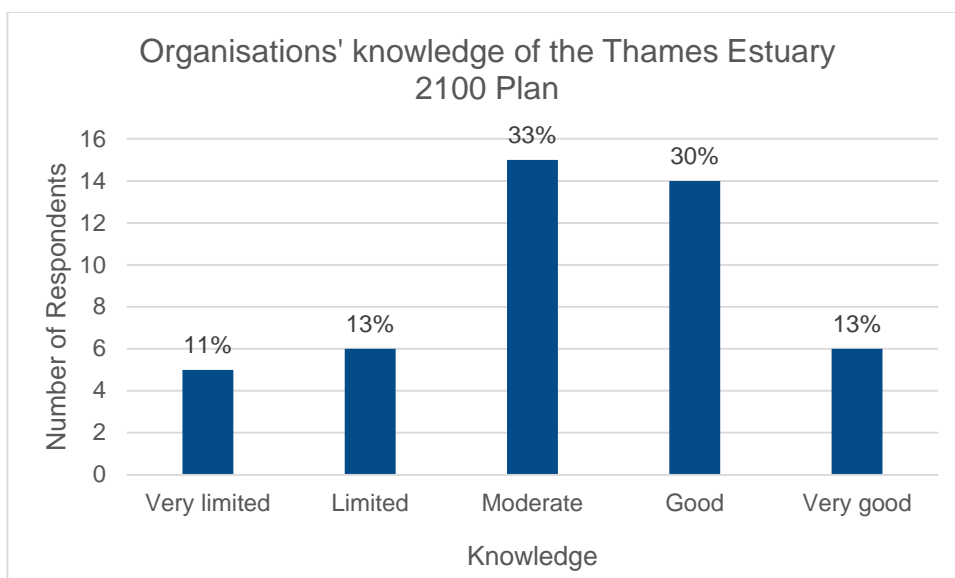
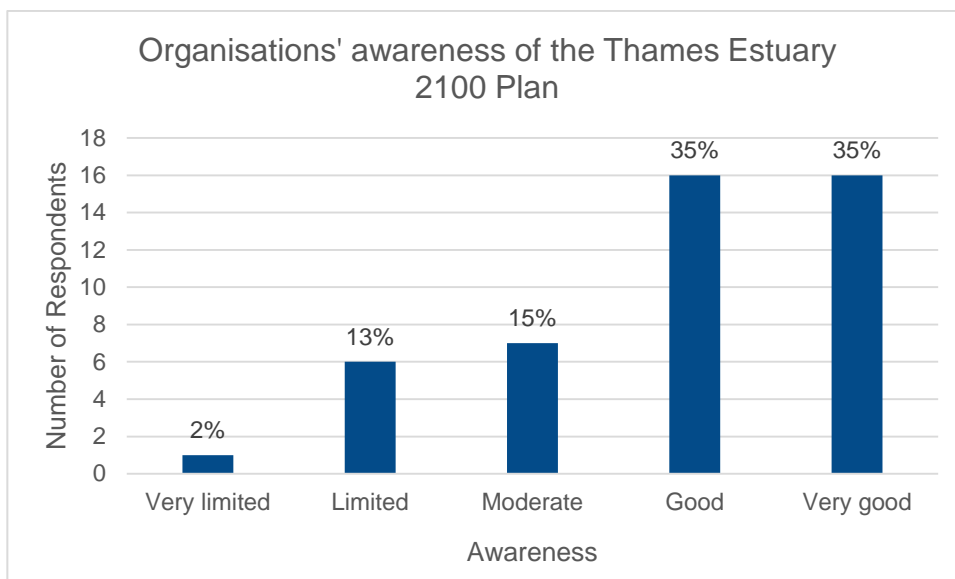
6.3.6. Question 15: Thinking about the communities you work with, compared to 10 years ago, do you feel tidal flood risk and climate change have become more or less important to them?



Compared to 10 years ago, 46% of organisations felt that tidal flood risk was more important to their communities today, whereas 80% felt that climate change had become more important.

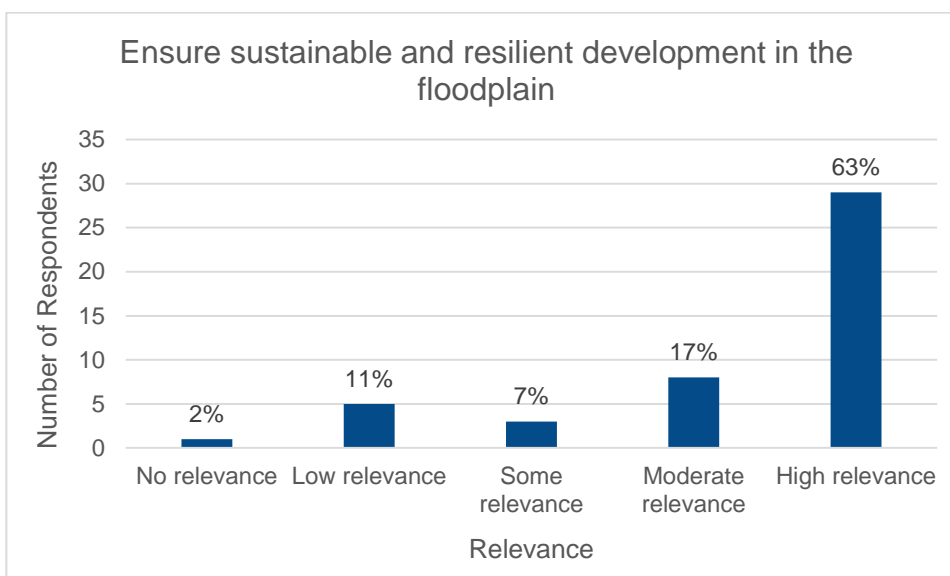
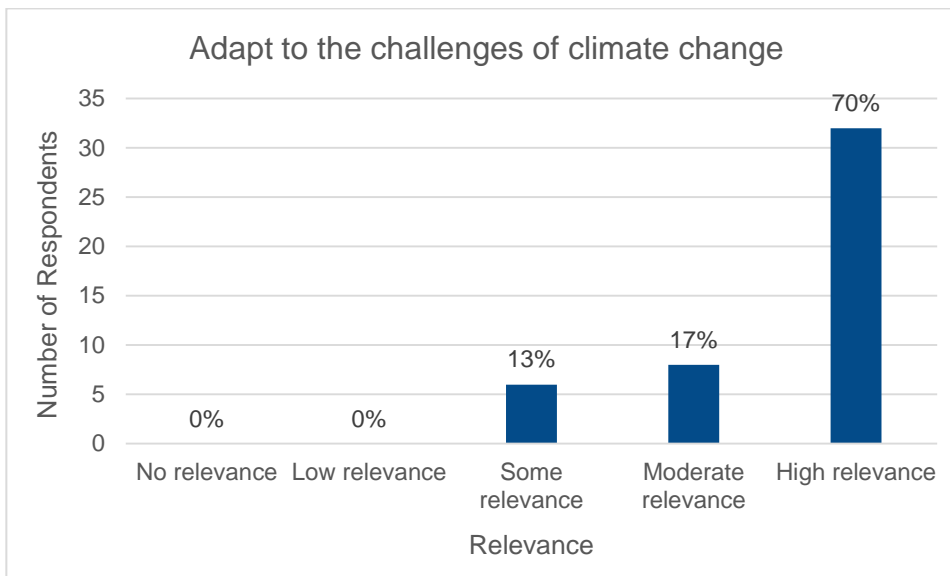
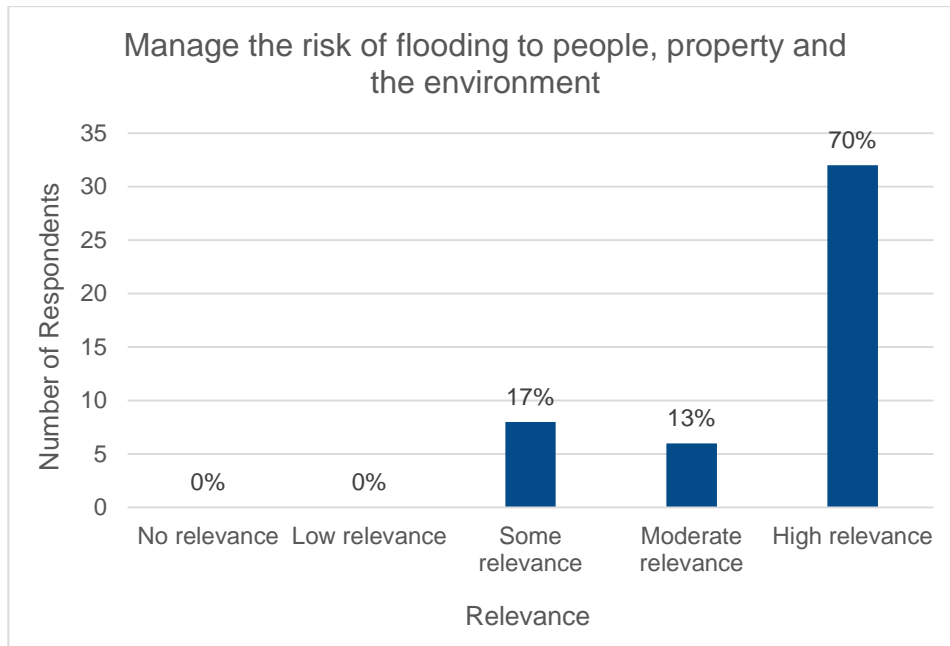
6.4. Thames Estuary 2100 Plan (for all respondents)

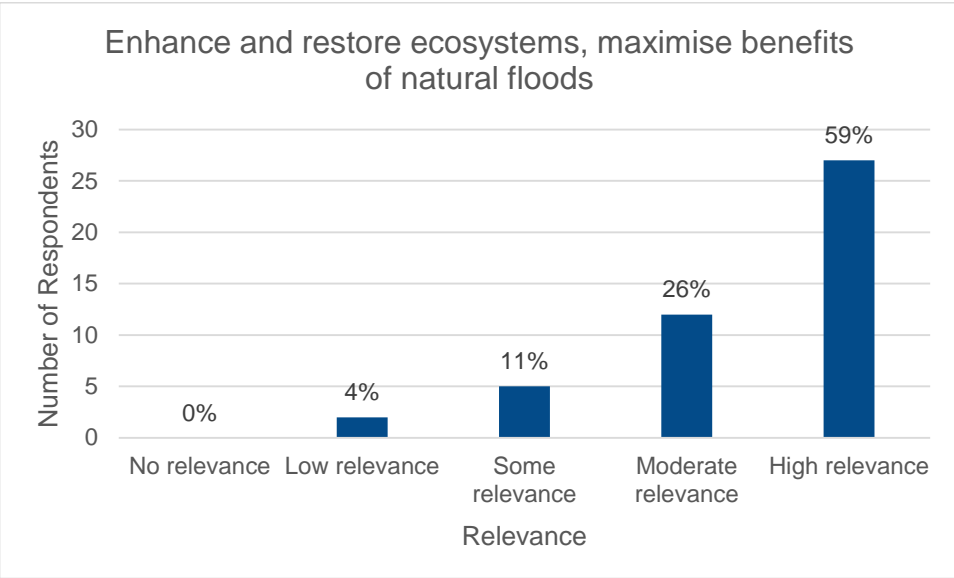
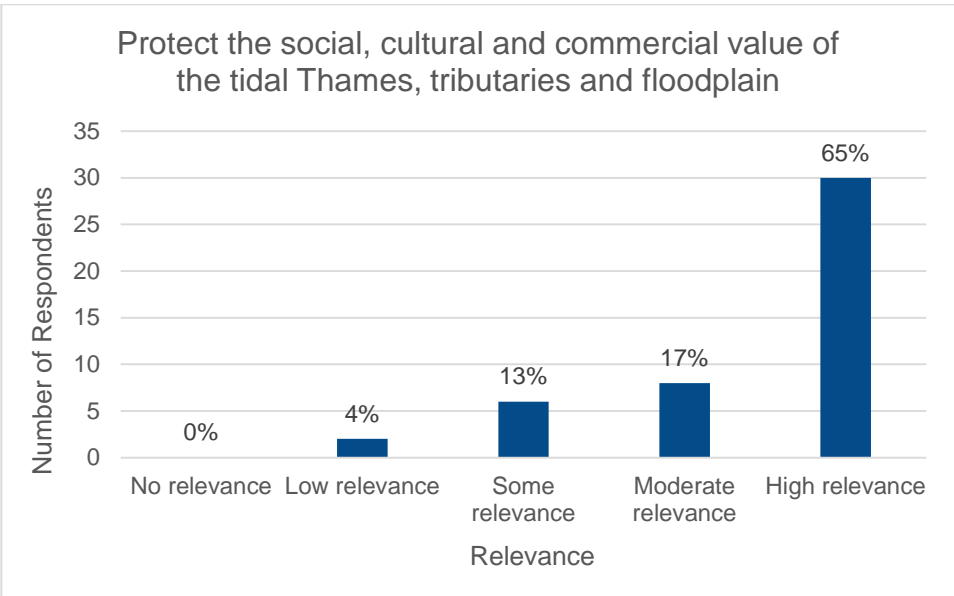
6.4.1. Question 16: How would you rate your current awareness and knowledge of the Thames Estuary 2100 Plan?



70% of organisations have a good or very good awareness of the Thames Estuary 2100 Plan, whereas 43% said they had a good or very good knowledge of the Plan. This indicates that although many organisations are aware of the Plan, they may not use it frequently enough to be fully aware of its content.

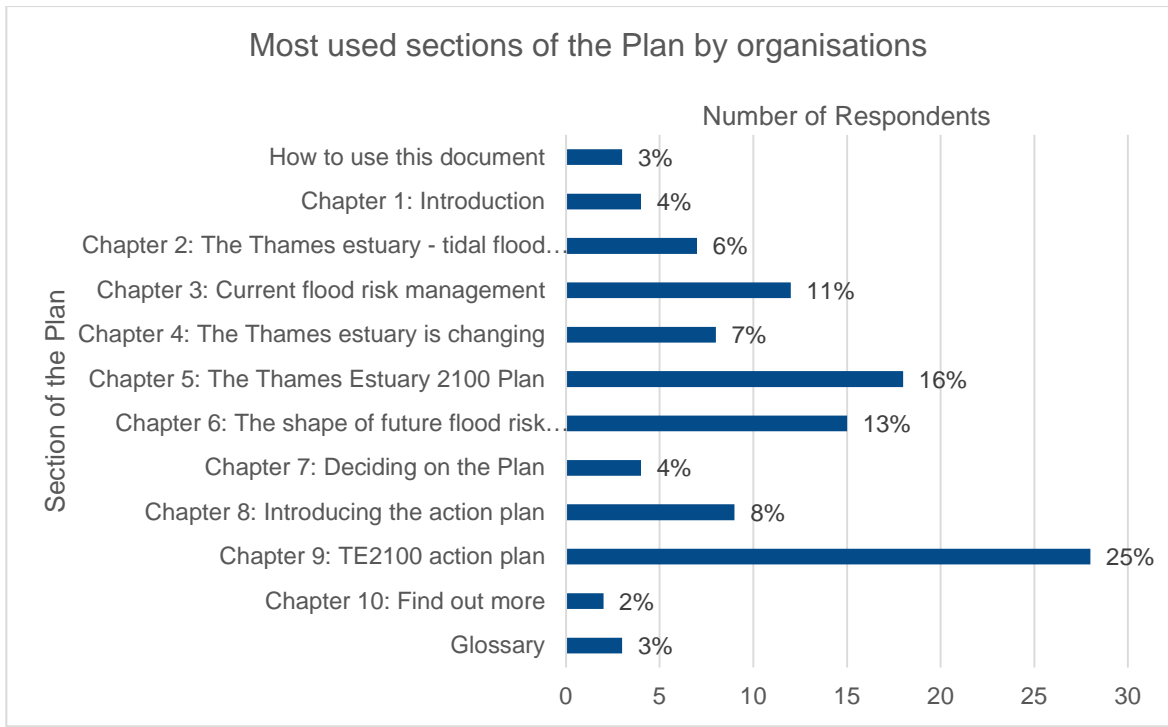
6.4.2. Question 17: How relevant is each aim of the Plan to your work?





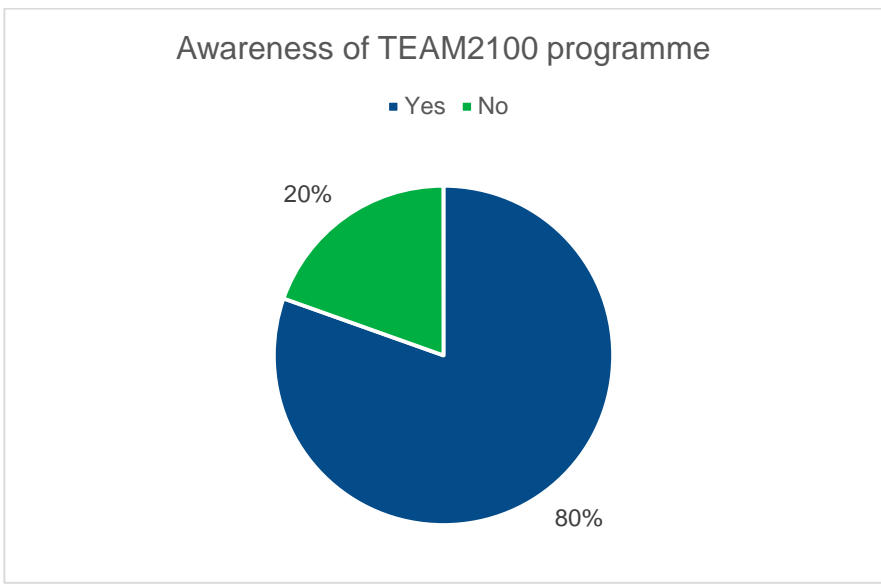
The aims to manage tidal flood risk and adapt to the challenges of climate change were scored the highest by organisations in terms of relevance to their work, with ensuring sustainable development and protecting the estuary’s social, cultural and commercial value following closely at 63% and 65% respectively. Enhancing ecosystems was viewed as the least relevant to the work of those who responded at 59%.

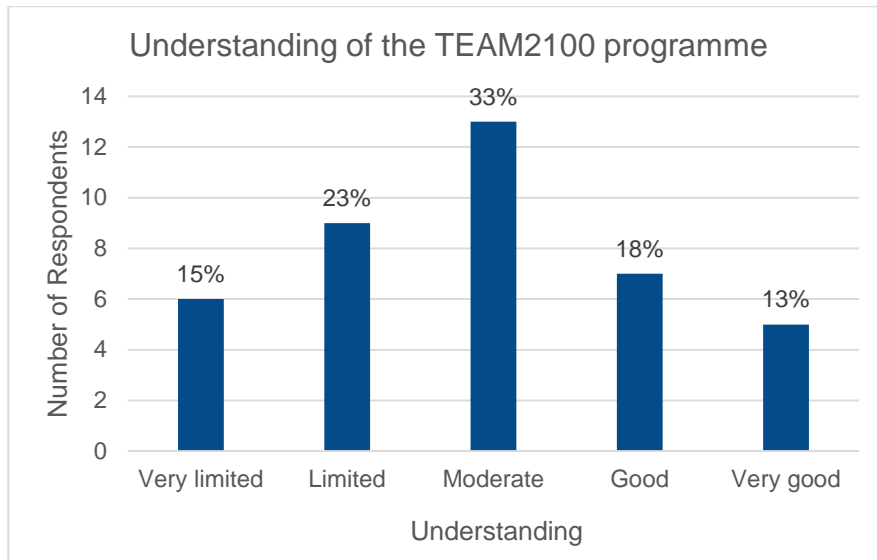
6.4.3. Question 18: Which section(s) of the Plan do you or your organisation use the most often?



The action plan is the most widely used section of the Plan, followed by chapters on the background of the Plan, and future and current flood risk management. The least used sections are 'Find out more', 'Glossary', and 'How to use this document'.

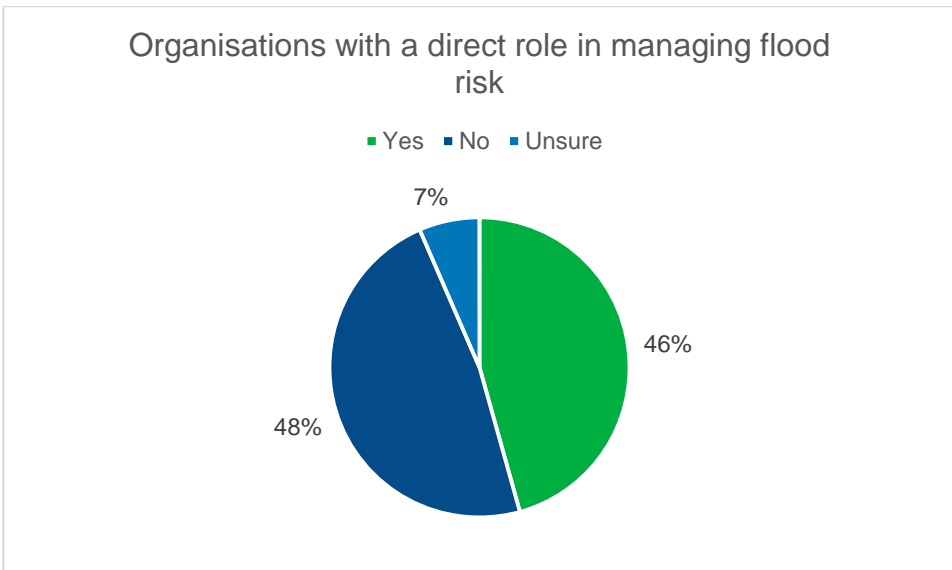
6.4.4. Question 19: Have you heard of the TEAM2100 programme? If yes, how would you rate your understanding of the TEAM2100 programme and how it is delivering some of the recommendations in the Thames Estuary 2100 Plan?





80% of organisations have heard of the TEAM2100 asset management programme. Understanding of the programme and how it is delivering some of the Plan's recommendations was mixed.

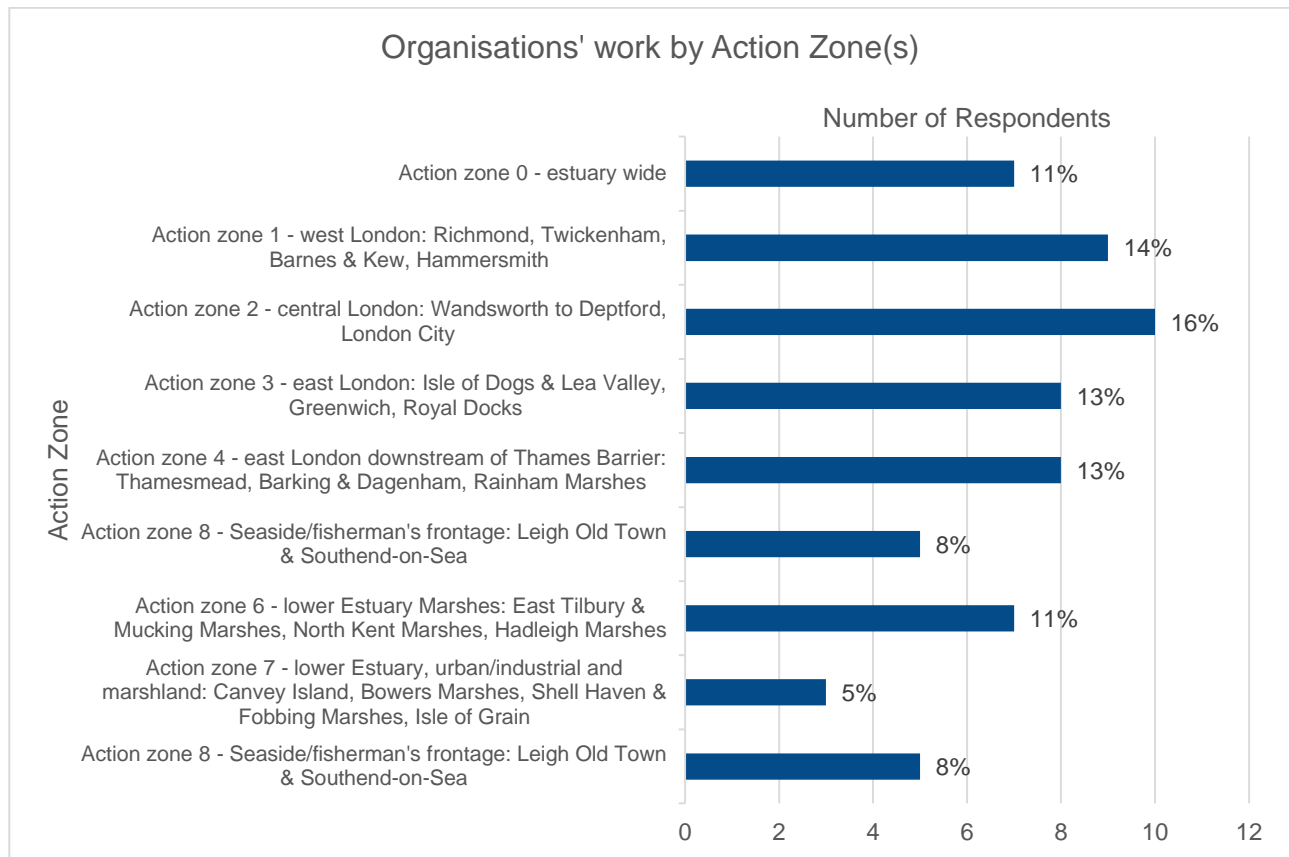
6.4.5. Question 20: Does your organisation have a direct role in managing flood risk in the Thames Estuary and/or any actions assigned to you in the current Thames Estuary 2100 Plan?



Organisations who responded were split almost equally between those who do and do not have a direct role in managing flood risk in the estuary.

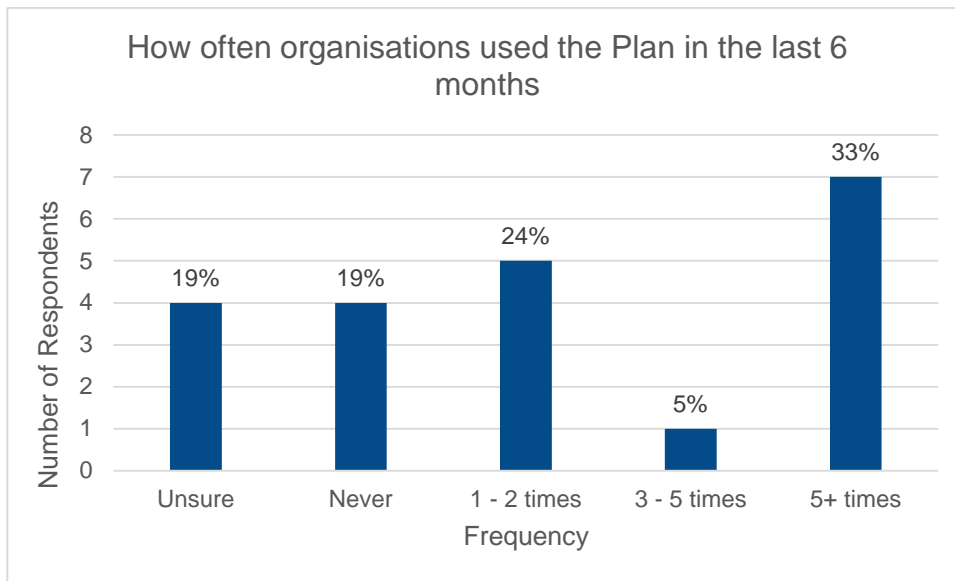
6.5. Delivering the Thames Estuary 2100 Plan (for organisations with a role in managing tidal flood risk)

6.5.1. Question 21: Does your work or the work of your organisation concern one (or more) of the following 'action zones' within the Plan?



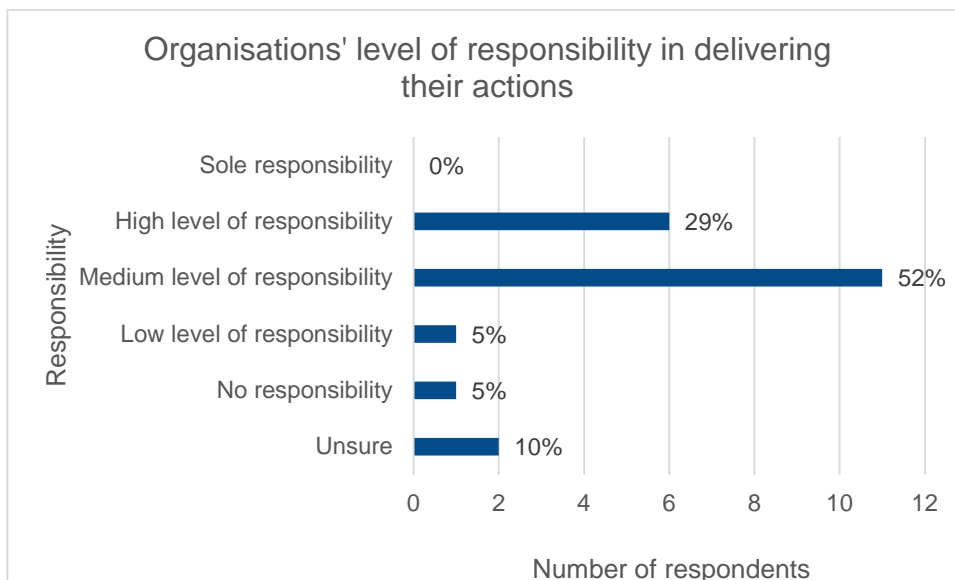
Respondents' action zones were spread across the estuary, with the most respondents' work concerning action zones 2, 1, 3 and 4. Action zone 7 in the lower estuary had the lowest number of respondents.

6.5.2. Question 22: In the last six months, how often have you referred to the Plan or the Plan's recommendations when undertaking your work in this action zone?



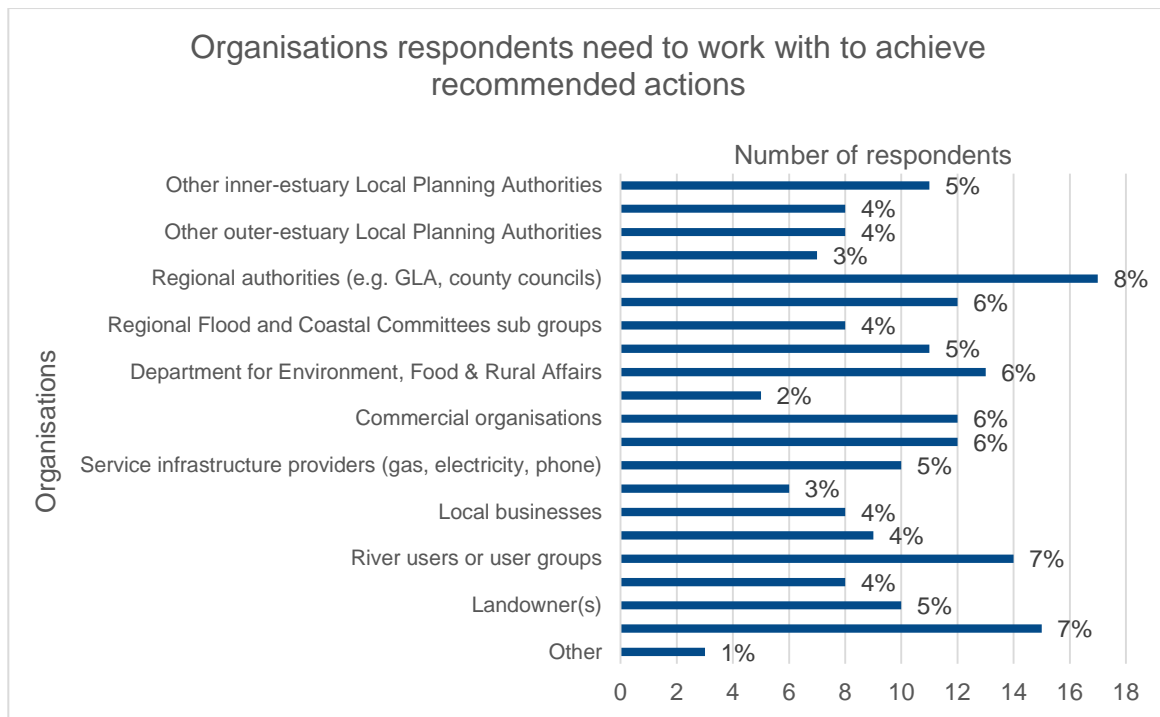
33% said they referred to the Plan 5 or more times in the last six months (from approximately January – June 2020), whereas 38% were unsure or had never used it, showing a mixed level of use between respondents.

6.5.3. Question 23: How would you rate your organisation's level of responsibility in delivering the actions recommended for your action zone(s)?



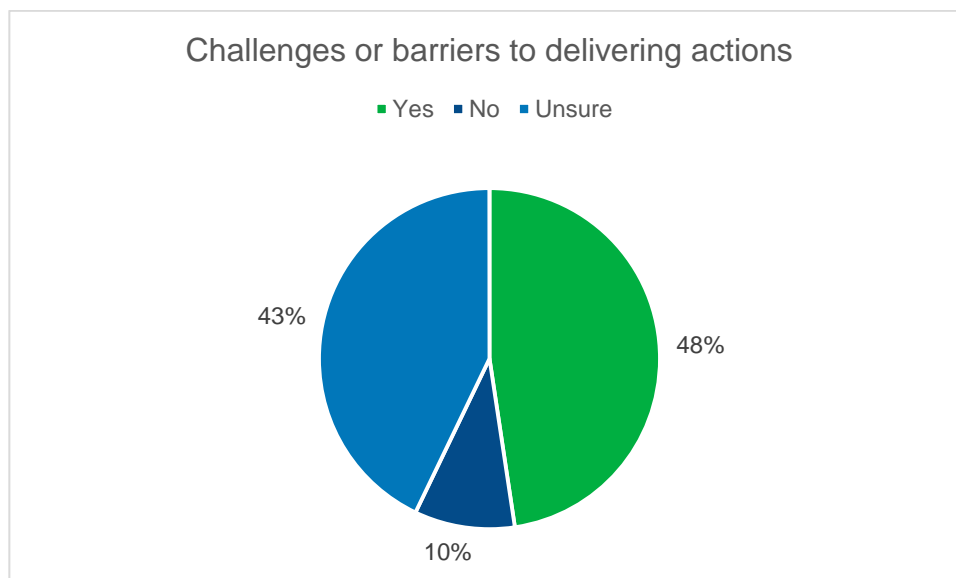
81% of organisations felt they had a medium-high level of responsibility for delivering actions in their action zone.

6.5.4. Question 24: Who do you need to work with to achieve the actions recommended for your action zone(s)?



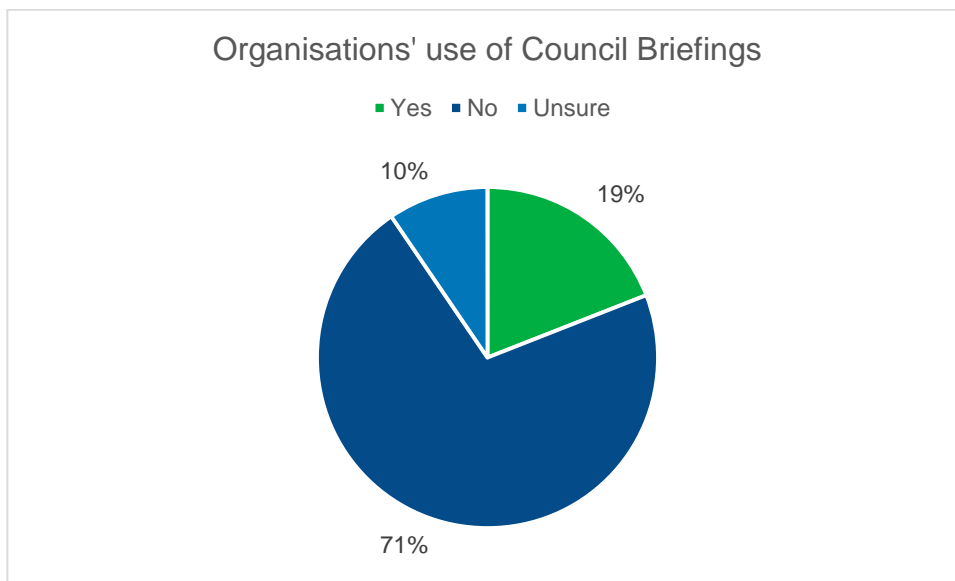
Regional authorities, river users and landowners received the most votes when organisations were asked who they need to work with to achieve the actions recommended for their action zone.

6.5.5. Question 25: Have you encountered any challenges or barriers to delivering the actions recommended for your action zone(s)?



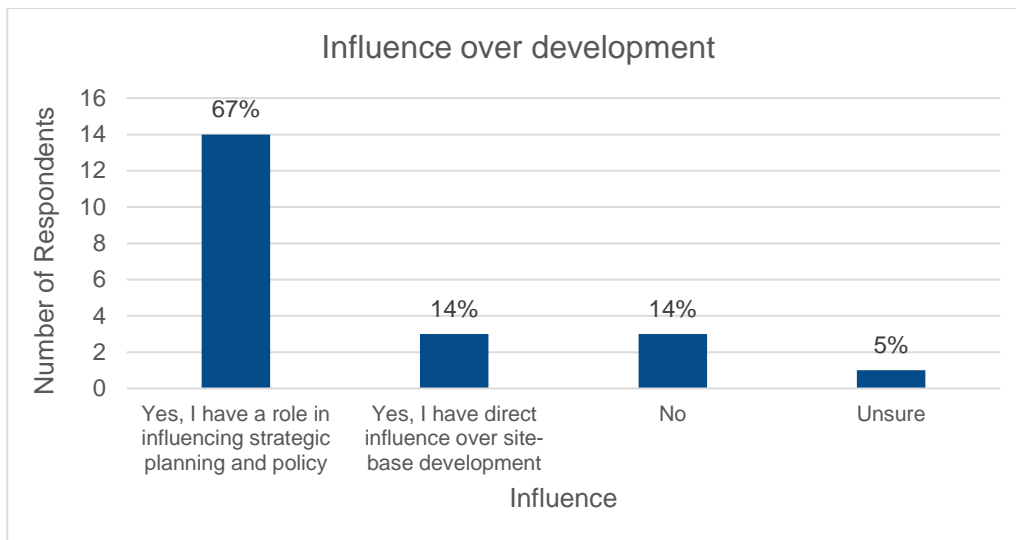
48% of organisations told us that they have encountered challenges or barriers to delivering the actions recommended for their action zone. 43% were 'unsure' whether they have encountered any challenges or barriers to delivering actions, however, the small number of comments provided did not explain why. This response may indicate that some respondents are either not aware of their actions, or have not been directly involved in delivery. We will use this information alongside the results of the questions on awareness and knowledge of the Plan to shape our future engagement with delivery partners.

6.5.6. Question 26: Have you ever used one of the Thames Estuary 2100 tailored local council briefings?



71% of organisations (with a direct role in managing flood risk) said that they have not used the council briefings before. Of those who said 'no', 60% were councils and 40% were other organisations.

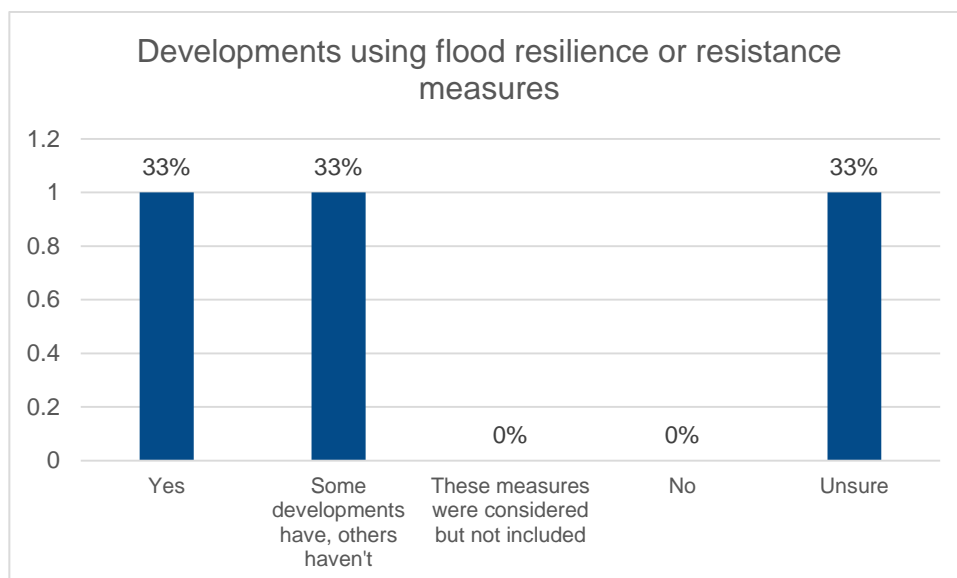
6.5.7. Question 27: Are you involved in influencing development within the tidal Thames flood plain?



67% of organisations that responded did have a role in influencing strategic planning and policy. 14% had direct influence over site-based development.

6.6. Resilient development (for organisations involved in influencing development)

6.6.1. Question 28: Thinking about the development(s) you have been or are currently involved in, have they used flood resilience or resistance measures in their design and construction?



This question was only available to participants who answered yes to having direct influence over site-based development. Only 3 respondents answered this question, and the response was mixed.

6.7. Development in the floodplain (for organisations involved in influencing development)

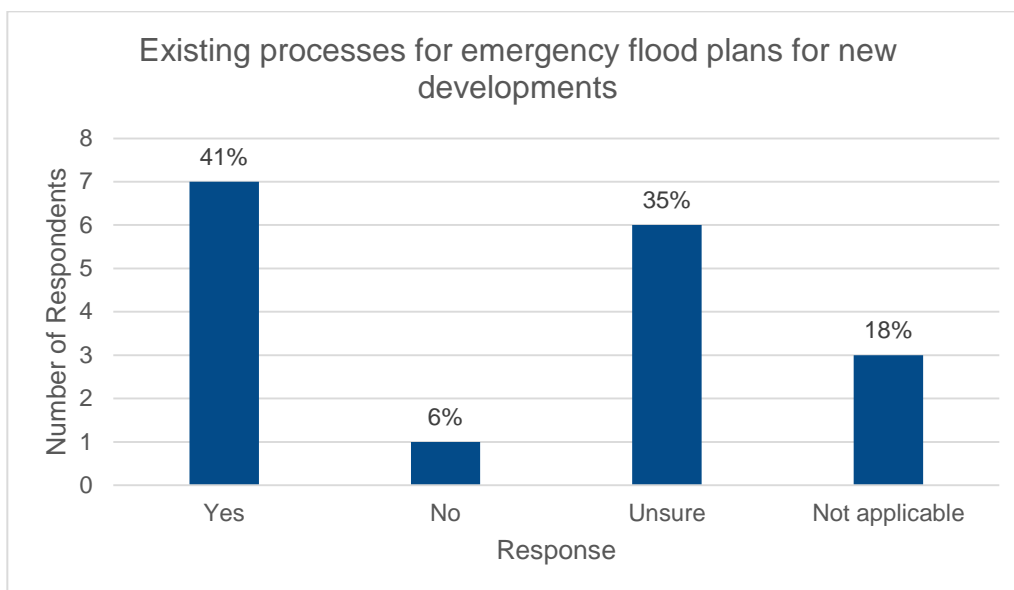
6.7.1. Question 29: Are you aware of any tidal riverside sites which have raised the existing tidal defences to the Thames Estuary 2100 levels, or ensured that future raising would not be precluded?

4 sites were identified.

Are you aware of any sites developed since 2012 where this has not been achieved?

The answers above are from respondents who agreed that we could publish their responses. 5 of 8 respondents told us that they were not aware of any sites where this has not been achieved. The other responses provided examples or comments. The respondents who answered the second part of this question asked us not to publish their response.

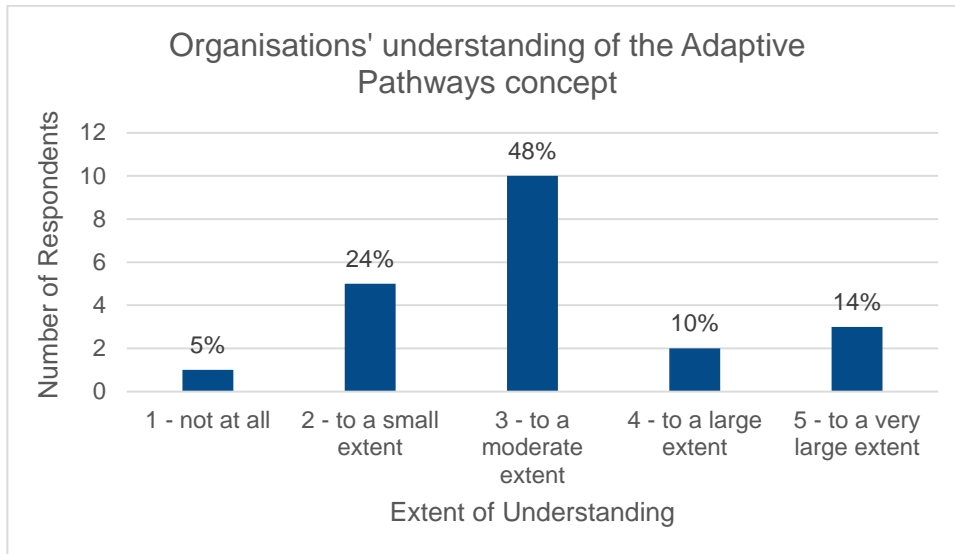
6.7.2. Question 30: If you are responding on behalf of a council, does a process exist within your council to ensure all new developments at risk of tidal flooding are required to have a suitable emergency flood plan in place? Who reviews and signs off these emergency flood plans?



7 out of 17 respondents said a process exists in their council to ensure all new developments have an emergency flood plan, with LLFAs, LPAs, and resilience teams responsible for approving these.

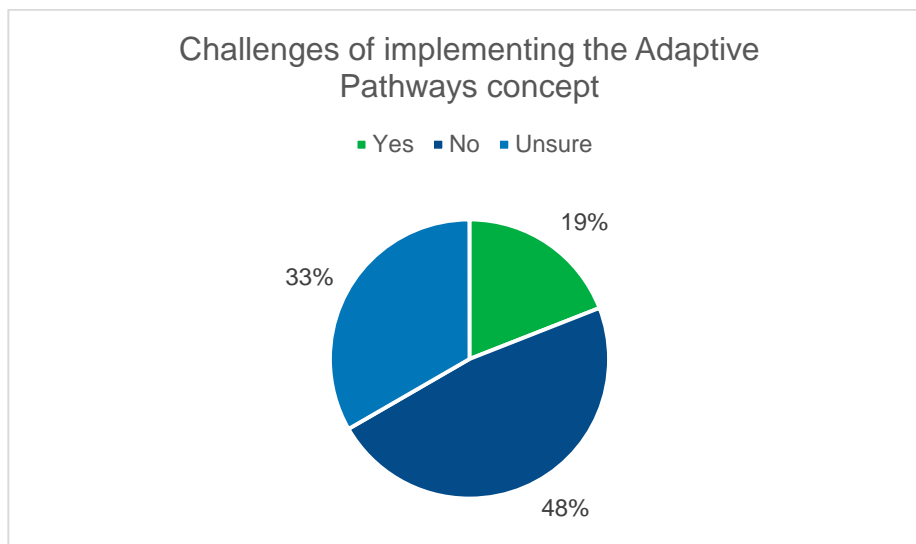
6.8. An adaptive approach to climate change (for all organisations)

6.8.1. Question 31: On a scale of 1-5, to what extent do you understand the adaptive pathways concept and how it is used in the Thames Estuary 2100 Plan?



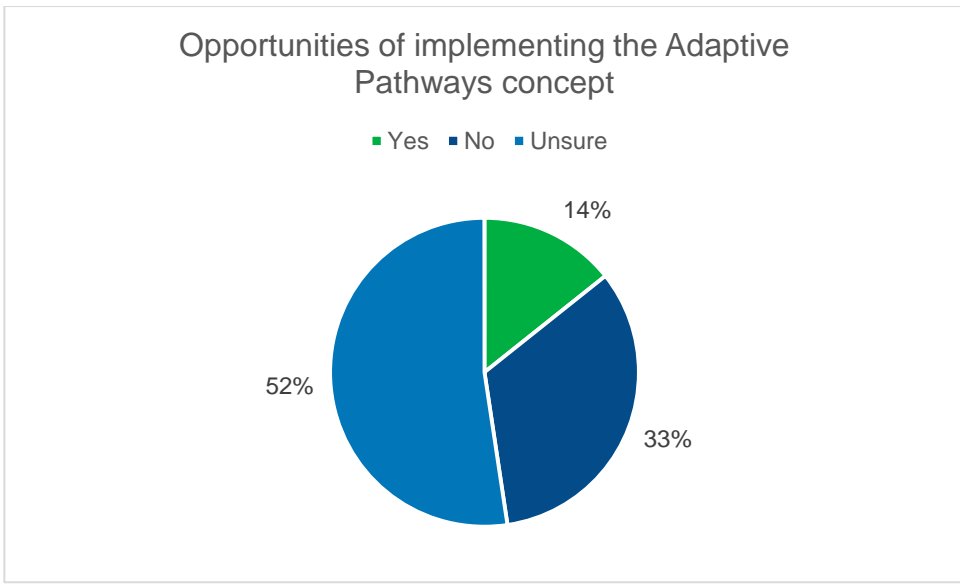
There was a mixed understanding of the adaptive pathways concept and how we use it in Thames Estuary 2100, with 48% of organisations saying they had a moderate understanding, 24% a good understanding and 29% little to no understanding.

6.8.2. Question 32: Have you experienced any specific challenges in your work as a result of the Thames Estuary 2100 Plan taking this approach?



19% of organisations have encountered challenges in their work as a result of the adaptive pathways concept in the Plan. These challenges were a lack of clarity on what an adaptive approach means, a lack of awareness of this approach, uncertainty around long-term planning and policy-making and delays to implementation leading to increased costs.

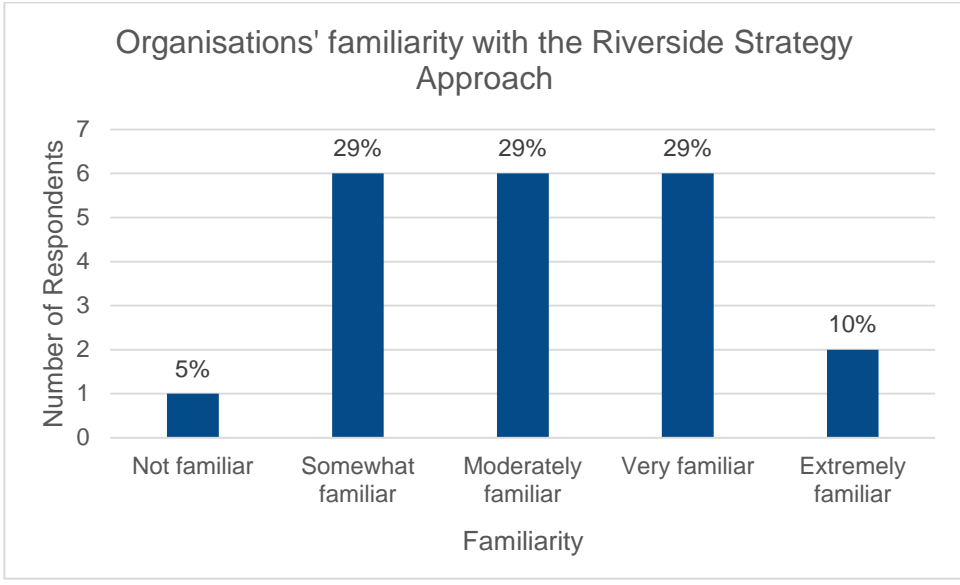
6.8.3. Question 33: Have you experienced any opportunities in your work as a result of the Plan taking this approach?



14% of organisations said they have encountered opportunities as a result of the adaptive pathways concept, including following the Thames Estuary 2100 Plan as an example in climate adaptation planning. 33% have not encountered any opportunities as a result of this concept.

6.9. Riverside Strategies (for all organisations)

6.9.1. Question 34: How familiar are you with the riverside strategy approach?

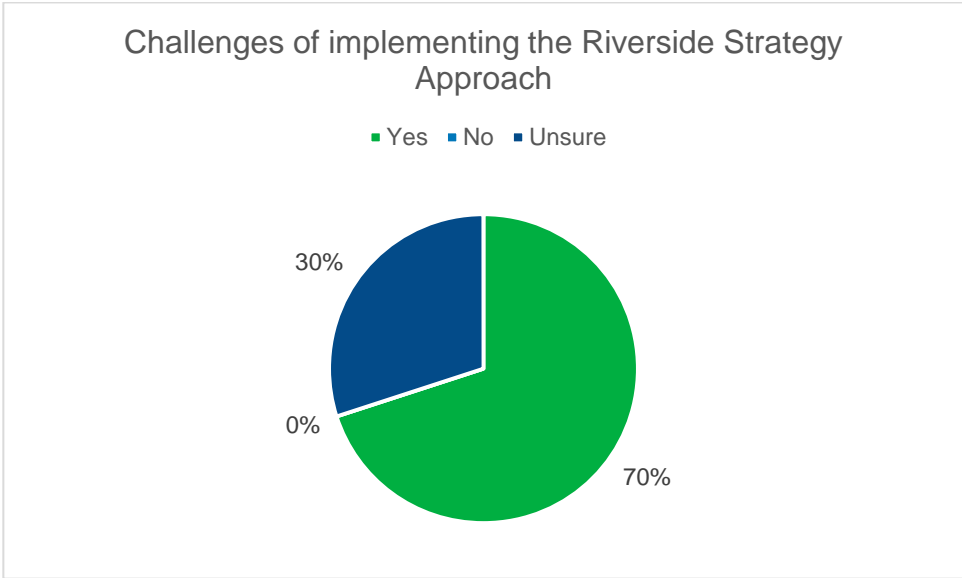


Organisations have a mixed awareness of the riverside strategy approach, however, only 1 respondent was not familiar with this approach.

6.9.2. Question 35: Please describe any existing examples and/or future opportunities to implement the riverside strategy approach in your work.

Specific examples were provided of areas where this approach could be implemented.

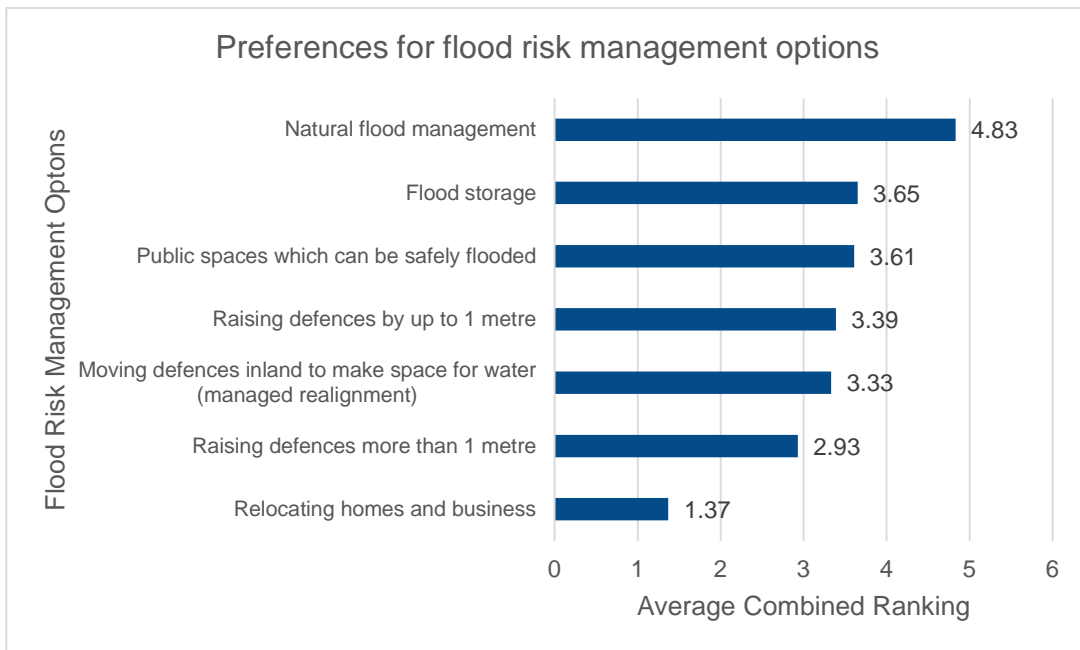
6.9.3. Question 36: Do you think that this approach poses any challenges?



70% of organisations felt that the riverside strategies approach poses challenges, which included a lack of collective funding sources and/or resources to implement the approach, conflicting priorities and a lack of clarity on timelines and expectations.

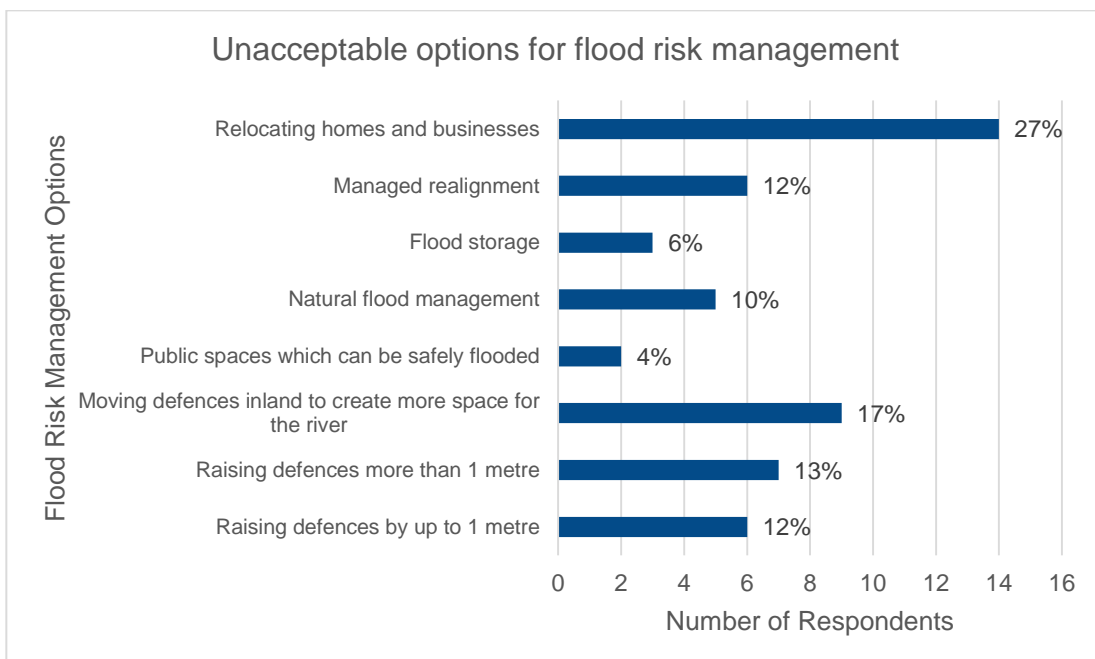
6.10. Future tidal flood risk management options

6.10.1. Question 37: Please rank the possible options or strategies for managing tidal flood risk in the Thames Estuary, in order of preference.



All respondents were asked this question. There was clear support for a range of flood risk management options, with natural flood management getting most support, followed by flood storage, above raising defences. The least popular option was relocating homes and businesses.

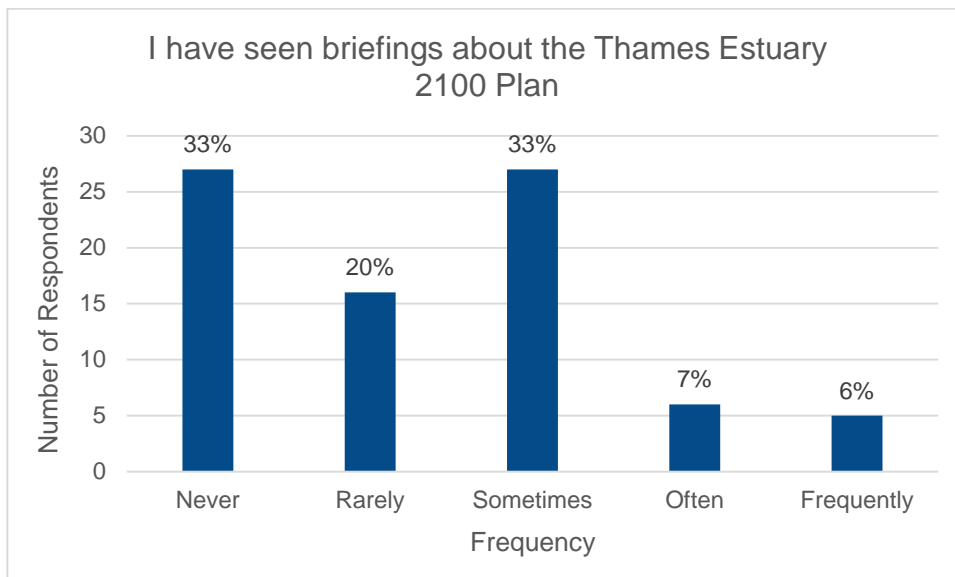
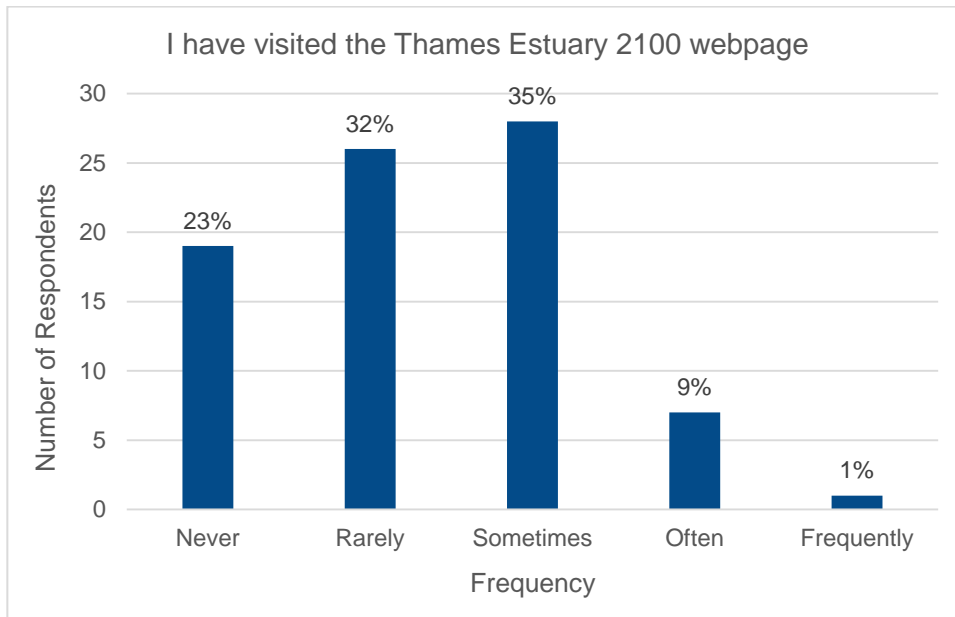
6.10.2. Question 38: Would any of these options be unacceptable to you, and why?

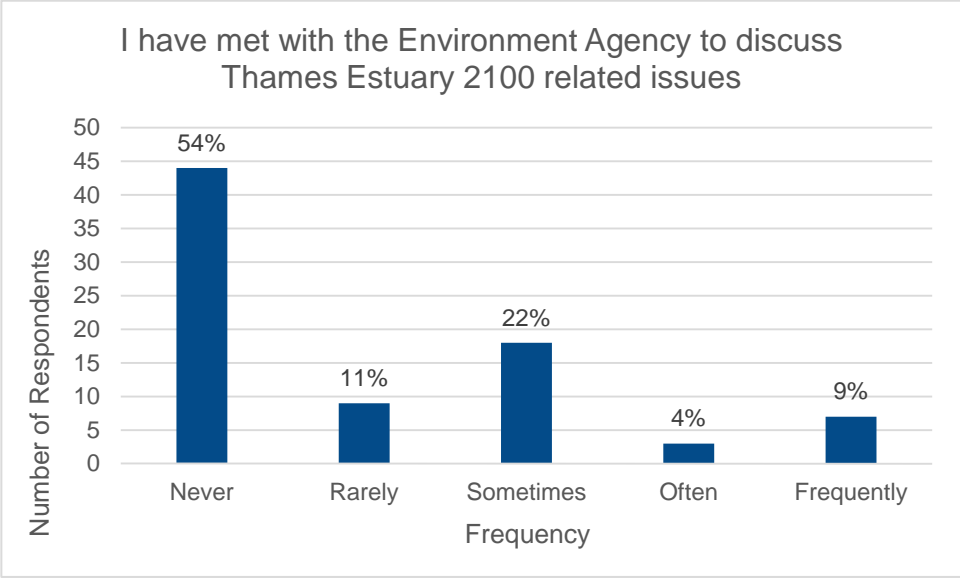
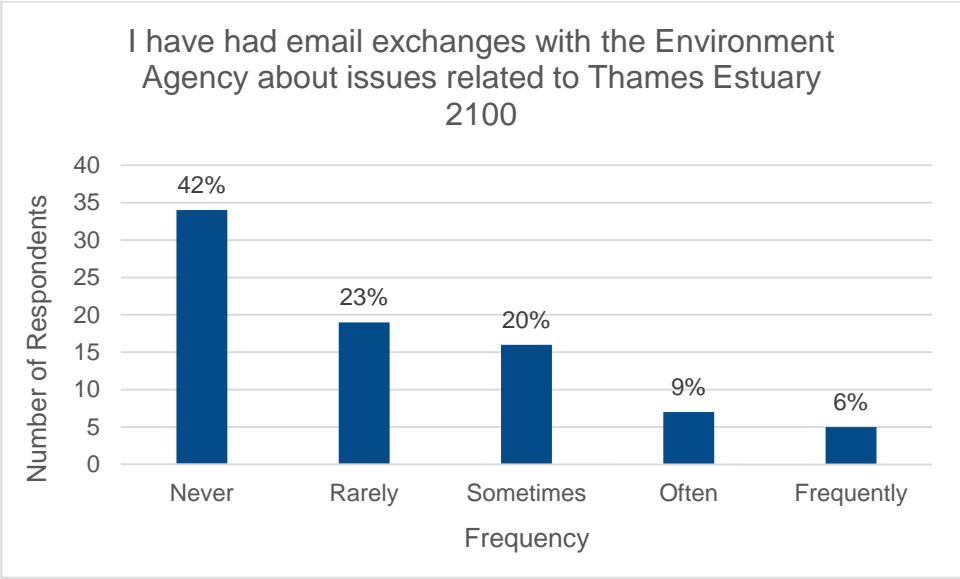
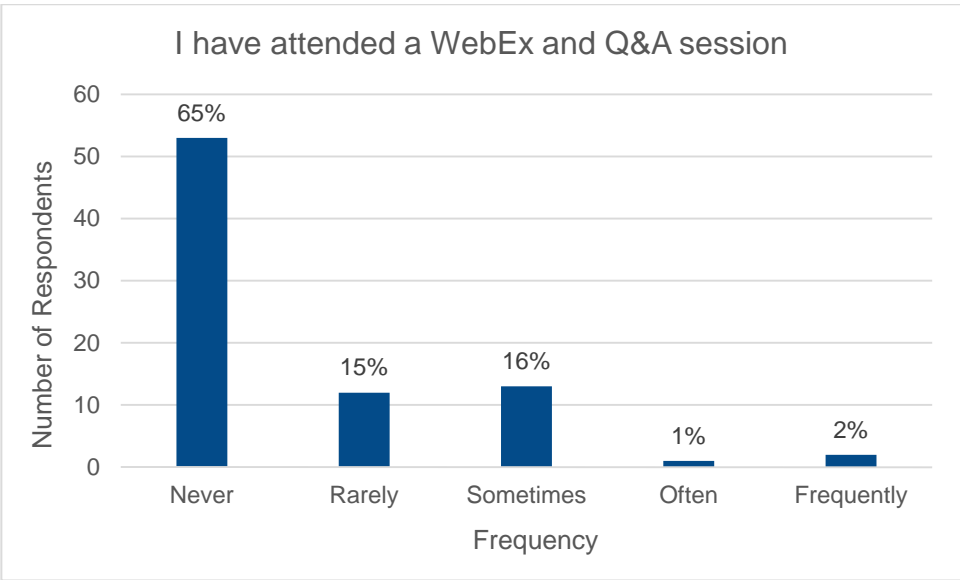


Participants were able to select more than one answer. 27% of respondents who answered this question said relocating homes and businesses was unacceptable, followed by 17% who felt that moving defences inland was unacceptable, and 13% who did not support raising defences more than 1 metre.

6.11. Updating the Plan (for all respondents)

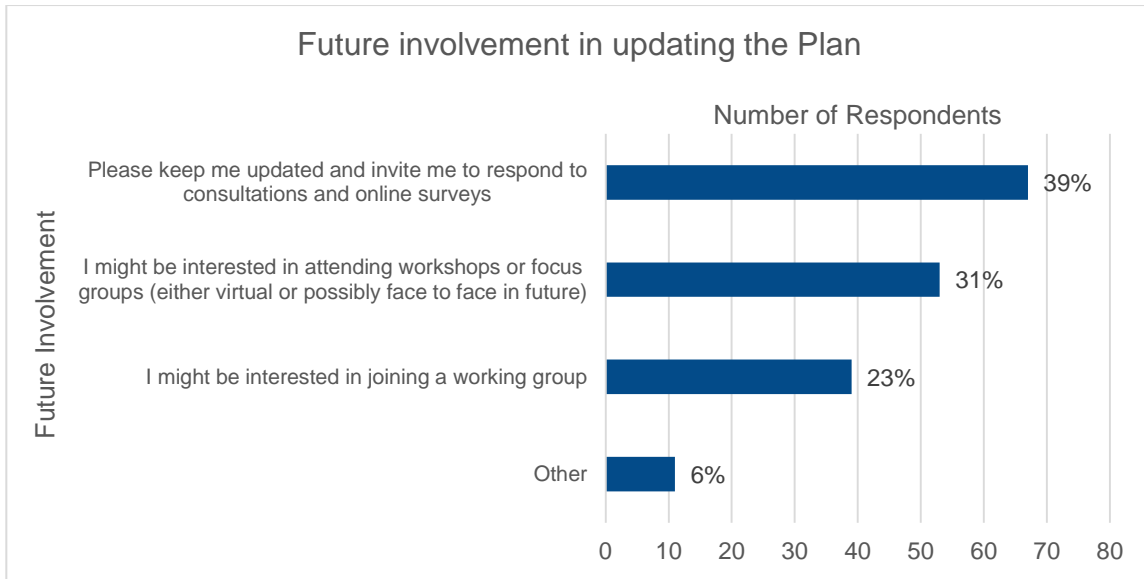
6.11.1. Question 39: How have you engaged with the Environment Agency about the Thames Estuary 2100 Plan since it was published?





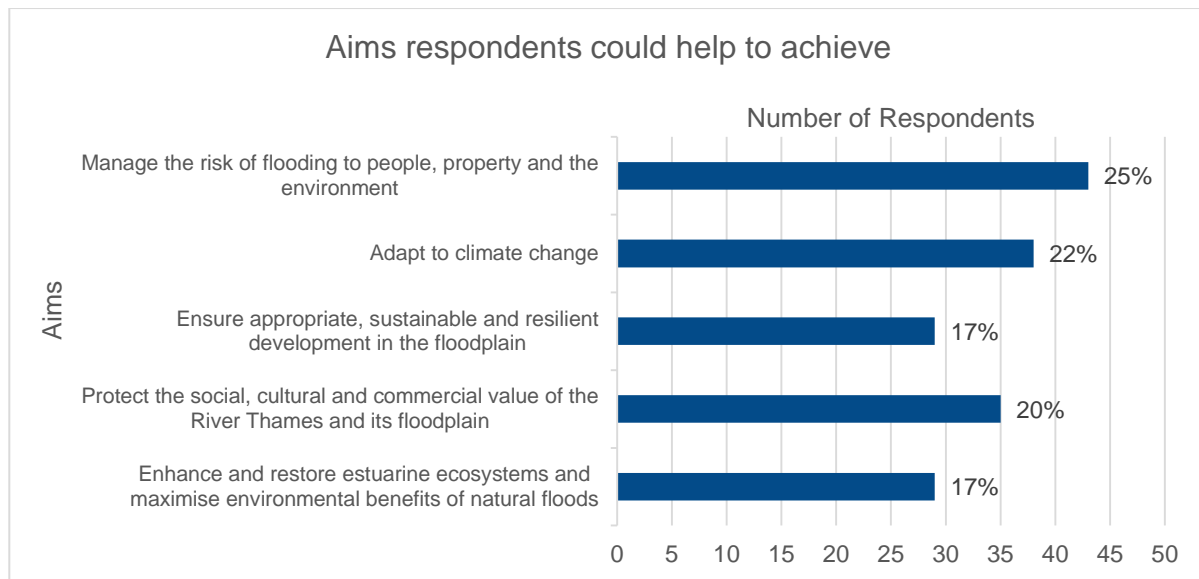
This question was open to all respondents. Overall, the webpage and briefings are the most widely used forms of engagement with 45% and 46% of respondents using these sometimes, often or frequently. Attending a WebEx and Q&A session was the least popular answer, although 34% had attended a WebEx at least once. 58% in total have emailed the Environment Agency about Thames Estuary 2100 and 46% in total have met with us to discuss issues, although only 13% have met with us often or frequently.

6.11.2. Question 40: How would you like to be involved in developing the updated Thames Estuary 2100 Plan?



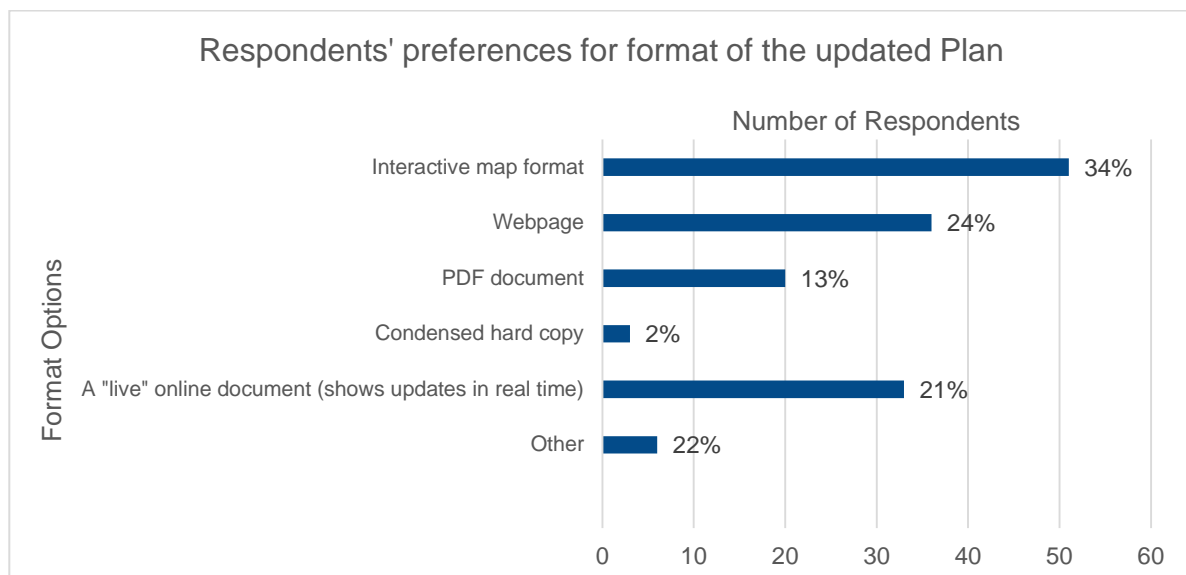
39% of all respondents wanted to be kept updated and to have the opportunity to respond to further consultations and online surveys. 31% told us that they might be interested in attending workshops or focus groups in the future and 23% would consider joining a working group. 26 respondents said they would be interested in a sustainability working group, 32 in planning and policy, 27 in benefits, 18 in engagement, 33 in riverside strategies and 12 in funding. Comments under 'other' requested presentations on tidal and fluvial flood risk for local residents at risk of flooding and offers to support Thames Estuary 2100 engagement from charities and special interest groups related to the estuary.

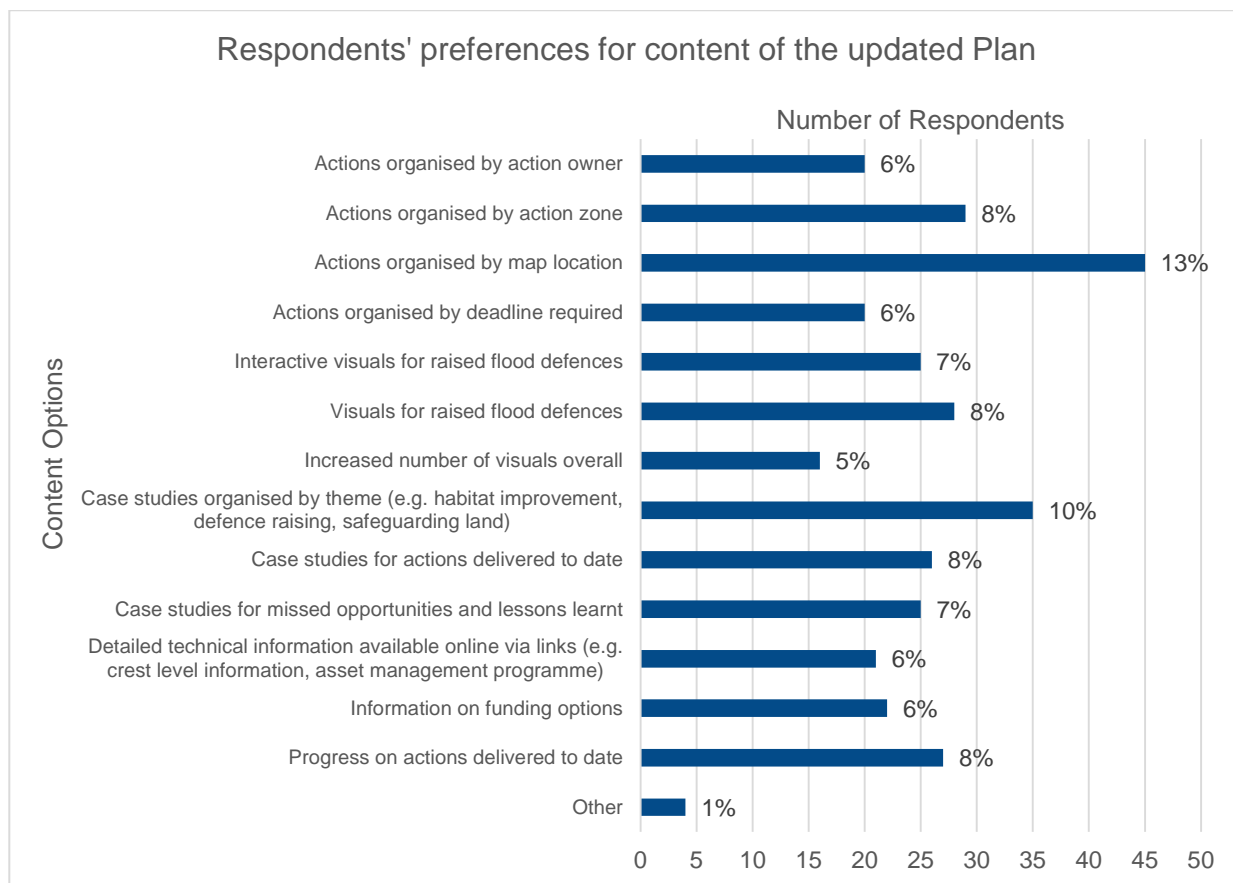
6.11.3. Question 41: Which of the Plan's 5 aims do you think you or your organisation could help us achieve?



Respondents could select multiple answers in this question. The Plan's aims to manage the risk of flooding to people, property and the environment and adapt to climate change received the most votes from respondents, although a substantial amount of respondents also felt that they could help to achieve the wider aims of the Plan.

6.11.4. Question 42: What would make it easier for you or your organisation to find the information that you need from the Plan?





33% of respondents said that an interactive map format would help them to find the information that they need from the Plan, followed by 24% for a webpage version and 21% for a live online document which updates in real-time.

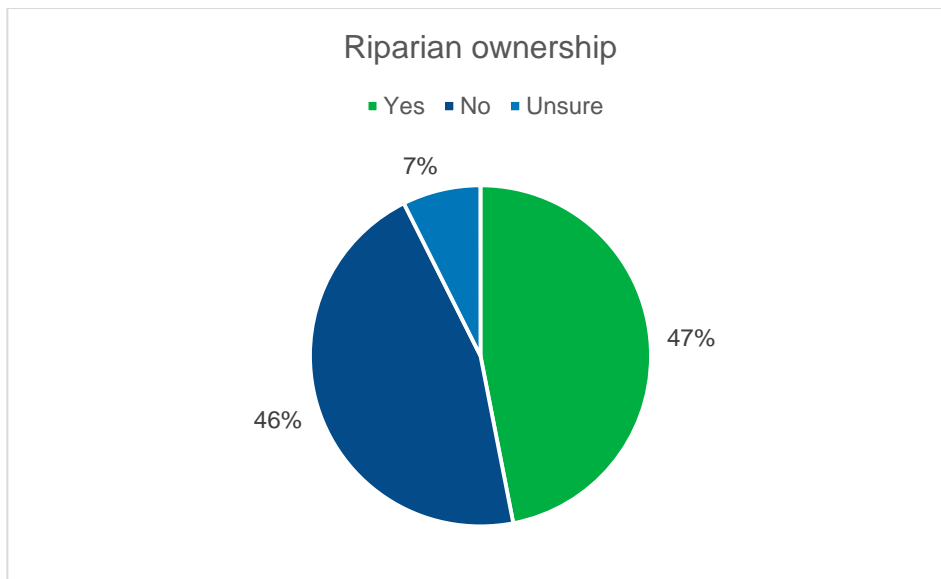
When asked about their preferred content for finding information in the updated Plan, the most popular options were actions organised by map location and case studies by theme. There was also support for actions organised by action zone, visuals for raised flood defences and case studies for actions already delivered.

Comments under 'other' requested downloadable shapefiles to map over organisations' own assets, a story map, and easier access to attachments, as well as increased clarity on actions and owners and expected outcomes and how successful implementation will be measured.

6.11.5. Question 43: How can we work with you more effectively to deliver the Thames Estuary 2100 Plan?

Respondents could only answer this question with a qualitative answer. Key themes for how we can work more effectively with respondents in the future were providing more opportunities for stakeholders to comment on and be involved in decisions, reaching out more frequently to other organisations to work collaboratively and share messages, providing more regular updates, making data more easily available, providing more support to councils in the form of knowledge and training, and increased engagement with local communities.

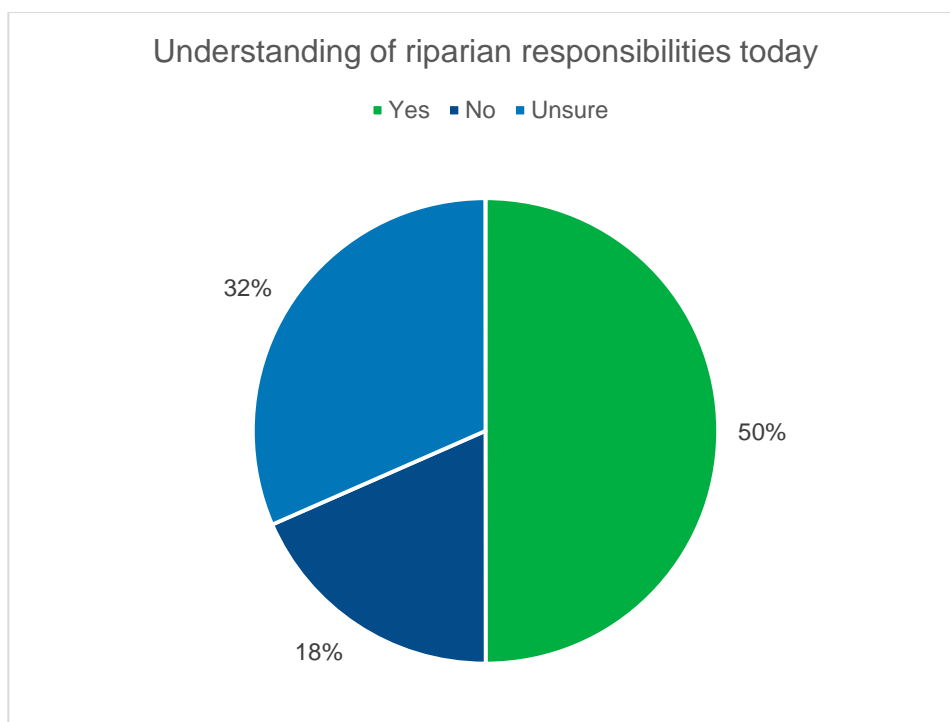
6.11.6. Question 44: Do you or your organisation own land that is adjacent to the Thames? (In other words, are you a riparian owner?)



47% of respondents said that they own land that is adjacent to the Thames Estuary. 46% who responded were not riparian owners.

6.12. Riparian ownership (for those who responded 'yes' to the previous question)

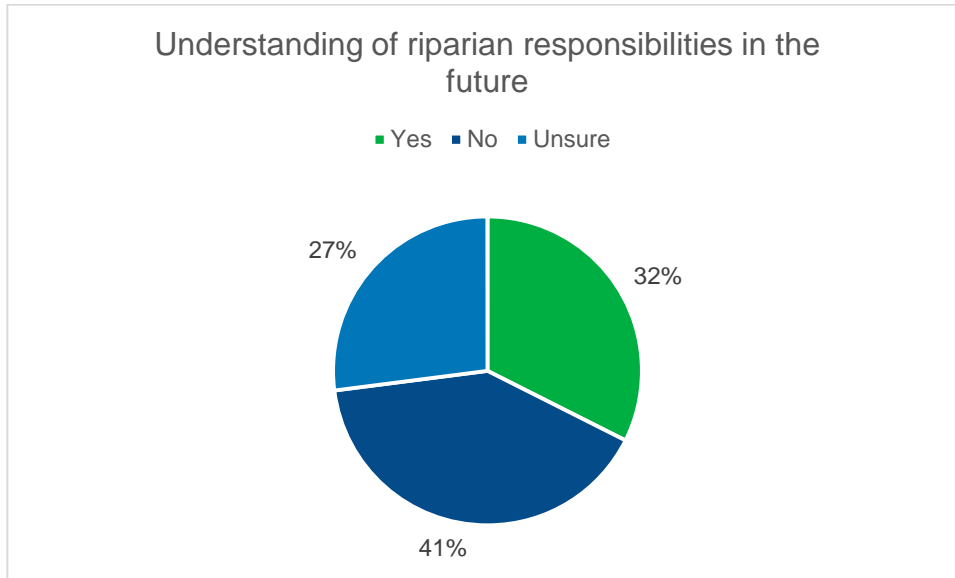
6.12.1. Question 45: Do you understand your responsibilities for flood defence maintenance and repair?



50% of respondents do understand their responsibilities for flood defence maintenance and repair, however, 18% do not and 32% were unsure.

Comments included requests for more information and help to understand riparian owners' responsibilities, including explaining other options for property level protection.

6.12.2. Question 46: Do you understand your responsibilities for raising flood defences in the future, including the deadline that the defence needs to be raised and by how much?



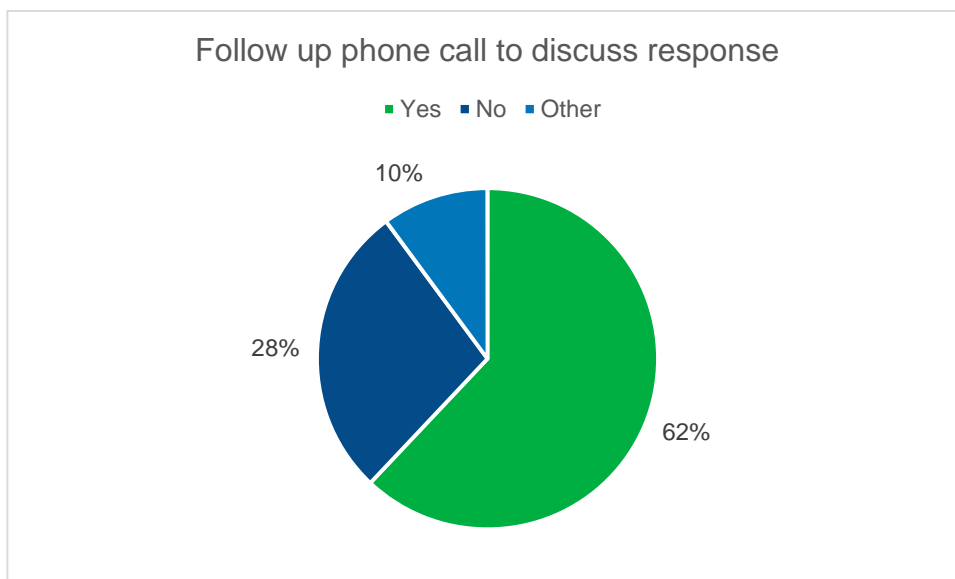
68% of respondents were unsure or unaware of their future responsibilities for raising flood defences. The reasons in the comments included not having any information on these responsibilities (apart from councils who did understand their future responsibilities). Some organisations stressed the importance of working in partnership with the Environment Agency to achieve this in the future.

6.12.3. Question 47: If you answered 'no' to either question, what additional support or information do you need to help you fulfil your role as a riparian owner?

Respondents could only answer this question with a qualitative answer. The main request for support was for more information and advice on what riparian owners' responsibilities are, both today and in the future, and what could be reasonably achieved for local residents' properties to protect them from tidal flooding.

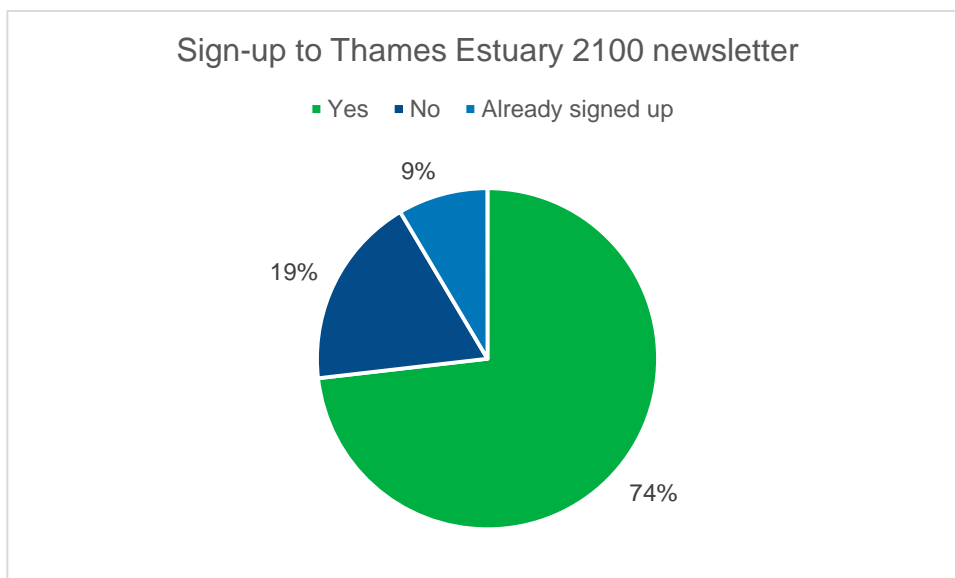
6.13. Next steps (for all respondents)

6.13.1. Question 48: Would you be open to a follow up phone call with the Thames Estuary 2100 project team to discuss your comments in more detail?



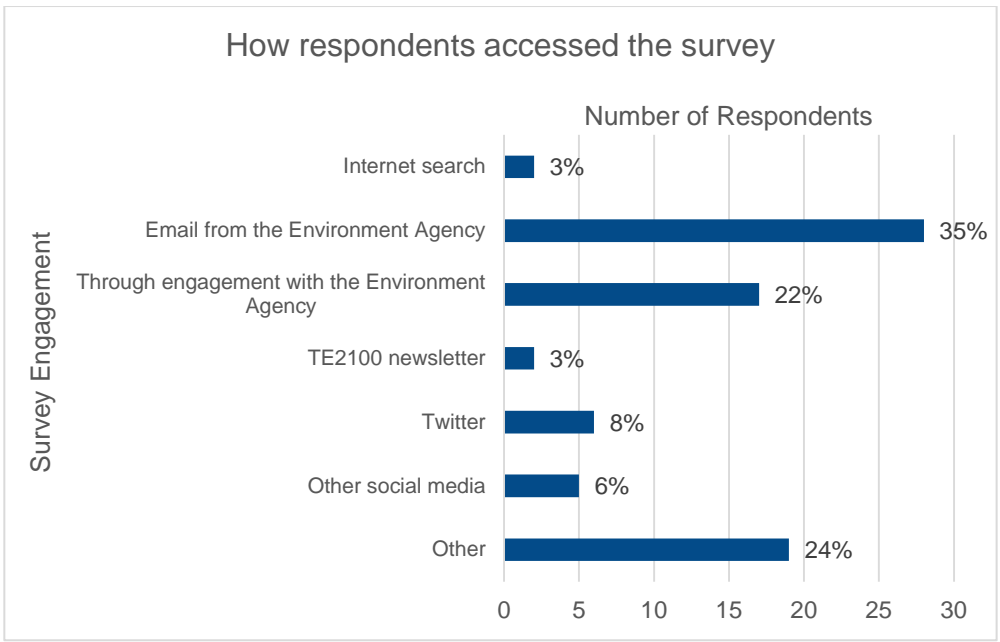
62% of all respondents said that they would be open to a follow up phone call to discuss their answers in more detail. For those who selected 'other', requests included face to face meetings, Zoom calls or corresponding via email.

6.13.2. Question 49: Do you want to sign up to receive the Thames Estuary 2100 quarterly e-newsletter?



74% of respondents wanted to sign up to receive the Thames Estuary 2100 quarterly newsletter and 9% were already signed up.

6.13.3. Question 50: Finally, it would really help us if you let us know how you found out about this survey



35% of respondents found out about the survey through an email from the Environment Agency. 24% said they found out about the survey via 'other', which included through a colleague, via word of mouth, another council, their MP, local flood wardens or through a local residents' group. Through the newsletter or an internet search received the lowest number of responses.

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