

Public use and perception of managed realignment sites on the Severn Estuary – 2016

A pilot study into the public use and perception of the Steart managed realignment site

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Executive summary

This document contains the main findings of a pilot questionnaire survey that took place at the WWT Steart managed re-alignment site in Somerset, SW England. The survey compliments other outputs produced under the NERC Severn Estuary saltmarsh MREKE (Marine Renewable Energy Knowledge Exchange) project. The most popular activity at the WWT Steart site was bird and nature watching. Most respondents had visited other wetland sites around the UK, with WWT Slimbridge being the most commonly visited. Respondents perceived many differences between the Steart and Slimbridge sites, with some respondents considered 'Educational opportunities' and 'On site facilities' better at Slimbridge, while 'Naturalness' was perceived as better at Steart. All respondents considered the Steart site had potential to develop into a valuable habitat for both wildlife and people, and most did not agree with statements suggesting Steart was a site which valued wildlife above the needs of people. Most respondents disagreed that WWT Steart was a temporary landscape feature, and when asked how the Steart site might change over the next 100 years, several respondents indicated an increase in biodiversity would occur, while others expected that the site would experience consequences of sea level rise. Respondents generally reported feeling very positive about habitat creation projects and the Steart site, however many reported feeling neither positive nor negative towards managed re-alignment projects. The survey revealed that 'Habitat conservation', 'Public access to sites' and 'Provision of recreational opportunities' were rated by respondents as being the most important issues when considering managed re-alignment schemes. The survey invited additional comments from respondents prompting some to express concerns about the planning process of managed re-alignment projects, while others had concerns about the effects of tidal power projects on the Steart and other nature conservation sites in the Severn Estuary.

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Introduction

Previous studies on public perception, understanding and opinion of saltmarsh environments within a managed re-alignment context have been limited (Upham *et al.* 2009; Ledoux 2005; Myatt *et al.* 2003; Myatt and Scrimshaw 2003; Myatt-Bell and Scrimshaw 2002). These studies have tended to focus on public attitudes and perceptions of managed re-alignment schemes from a coastal defence and climate change context. Studies into how the public value and place importance on managed re-alignment sites as they develop are rare. Previous research in this area is also now quite dated. There are increasing numbers of managed re-alignment sites across the UK region and these are likely to increase further as we approach the second epoch of SMP2s. With pressure to create new saltmarsh habitat, there is an increasing need for research to be undertaken into developing our current understanding of the public's perception and attitudes towards managed re-alignment schemes, especially as poor public understanding is a known barrier to the implementation of such schemes (Garbutt and Boorman 2009).

The Severn Estuary region was selected as the basis for this project where there is considerable pressure for habitat replacement as a result of legal requirements. Currently under Annex I of the Habitats Directive (92/43/ECC), saltmarsh habitats will need to be replaced to compensate for potential losses from various offshore developments, notably currently the proposed marine renewable energy developments (Tidal Lagoon Cardiff Ltd 2015). The policy recommendations within the recently agreed Severn Estuary Shoreline Management Plan (SMP2) (Atkins Ltd 2010), particularly for the second and third SMP2 epochs, later this century also suggest considerable potential for managed realignment around the estuary.

In summary the project sought to:

- 1) *Provide insight into the current understanding of public perception of a large-scale managed realignment site within a highly contested estuary environment*
- 2) *Investigate the public's opinions and attitudes towards future coastal change at re-alignment sites and probe into the importance they attribute to natural landscape processes*
- 3) *Produce a pilot survey to inform the development of a Severn Estuary-wide questionnaire survey*

Approach taken

A face-to-face pilot questionnaire survey was conducted with fifteen respondents at the WWT Steart managed re-alignment site in Somerset, SW England in April 2015 over the Easter school holiday. A short survey was designed, including background questions related to the respondents' backgrounds and site usage. The survey also featured some interactive question styles which enabled respondents to customise answers and provide detailed data, particularly related to how they believed Steart compared to other wetland sites, and how Steart would change and develop over time. As a pilot survey, the questionnaire was designed with the intent to highlight key trends in participant responses.

Respondent background

- Most respondents were local, having travelled less than 20 miles to the site (Fig 1.)
- Most respondents (9) were repeat visitors. Of these, 6 had previously visited the site on many occasions (6 or more times). Only 6 respondents had never visited the site before.
- There was a fairly even female to male representation, reflecting national data (Fig. 2).
- An imbalance in the age profile of the respondents is present as 60% were aged 50+ and only 20% were under 35 years (Fig. 2).

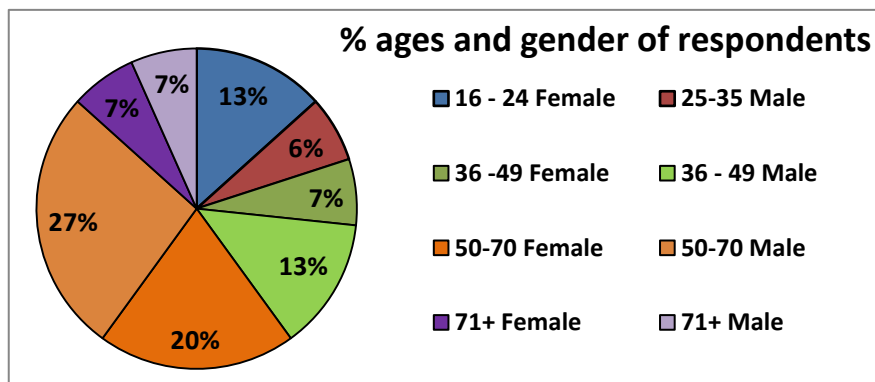


Figure 2: Results are similar to UK national gender census data (Office for National statistics 2012).

Results - Activities taking place and reasons for visiting

- Most respondents stated their main reason for visiting the site was just to view it. The second most popular reason was related to its walking opportunities (fig. 4).
- The most popular activities taking place at Steart were related to bird and nature watching (fig. 3). This was not dissimilar to reasons given in the Freiston survey (Manly, 2004)

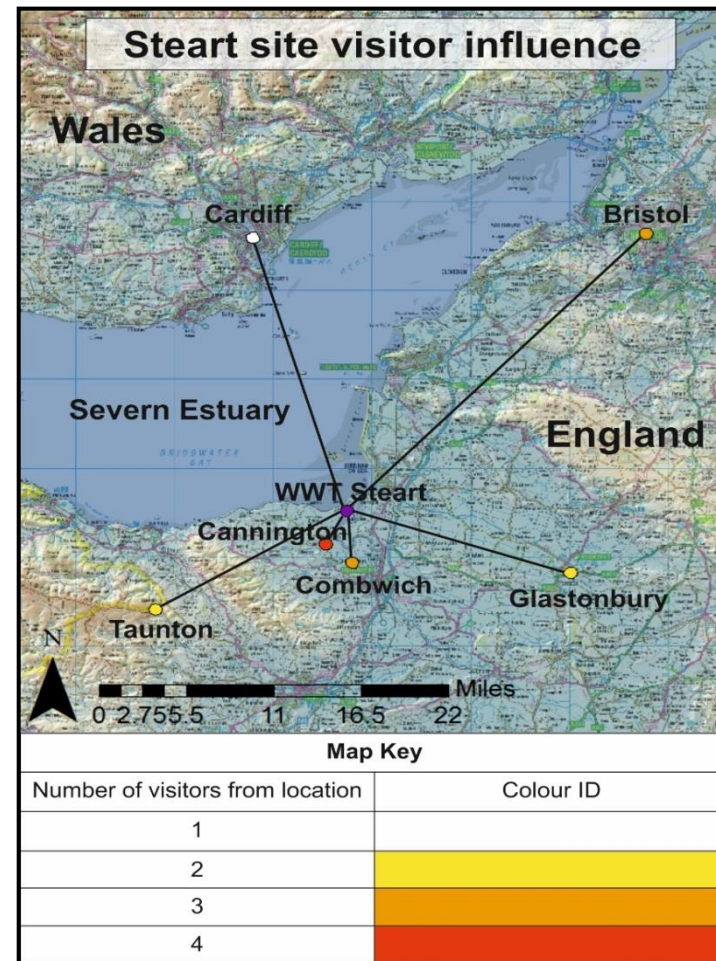


Figure 1: Most visitors came from Cannington. The site attracted a number of visitors from Bristol. Source: Original, contains ©Crown Copyright/database right 2015. Ordnance Survey / EDINA supplied service.data.

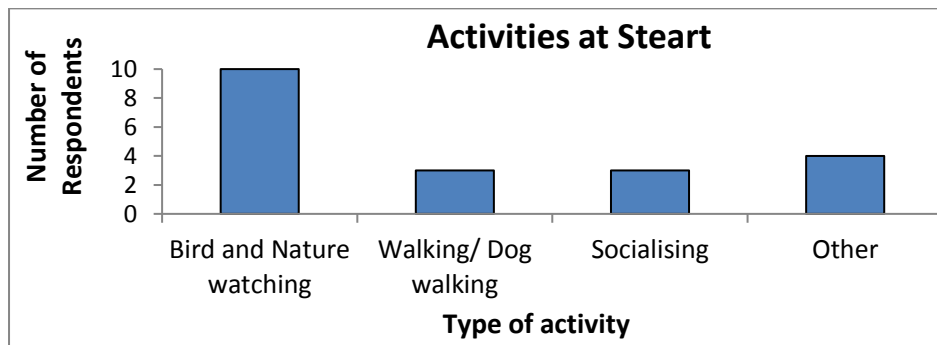


Figure 3: Other activities included cycling, horse riding and photography.

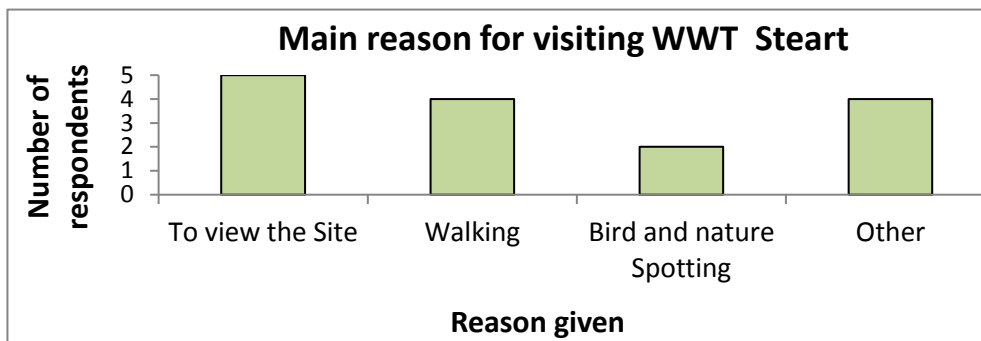
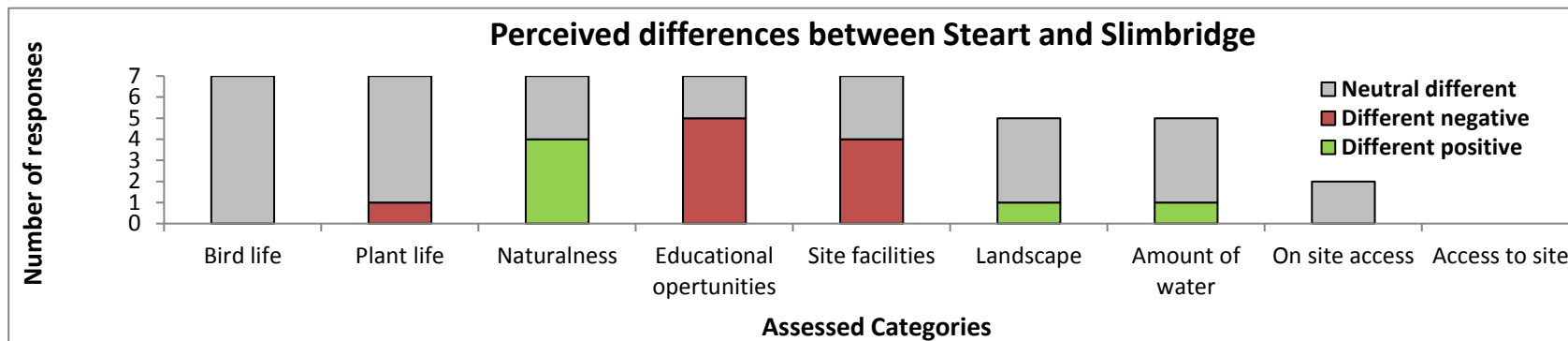


Figure 4: Other reasons for visiting the site included local dog walking, horse riding and conservation volunteering.

General respondent views of WWT Steart relative to other wetlands sites

- Many visitors had visited other wetland sites within the UK. The WWT Slimbridge site was the most common other location visited (fig. 5). Most respondents chose to compare the WWT Slimbridge site with the WWT Steart site (7 respondents).
- The bird and plant life at Steart and Slimbridge was perceived to be different by all respondents, but most suggested they did not view these differences in either a positive or negative way (fig.6).
- All respondents considered the quality of ‘naturalness’ at the sites to be different, with Steart seen to have a positive ‘natural feel’ compared to Slimbridge (fig. 6).
- All respondents noted a difference in the educational opportunities and site facilities at Steart compared with Slimbridge. Most respondents reported that the educational opportunities and site facilities were better at Slimbridge (fig. 6).
- Most respondents perceived a difference in the landscape and water environment at the sites. Most felt this neither to be a positive or negative change (fig. 6)

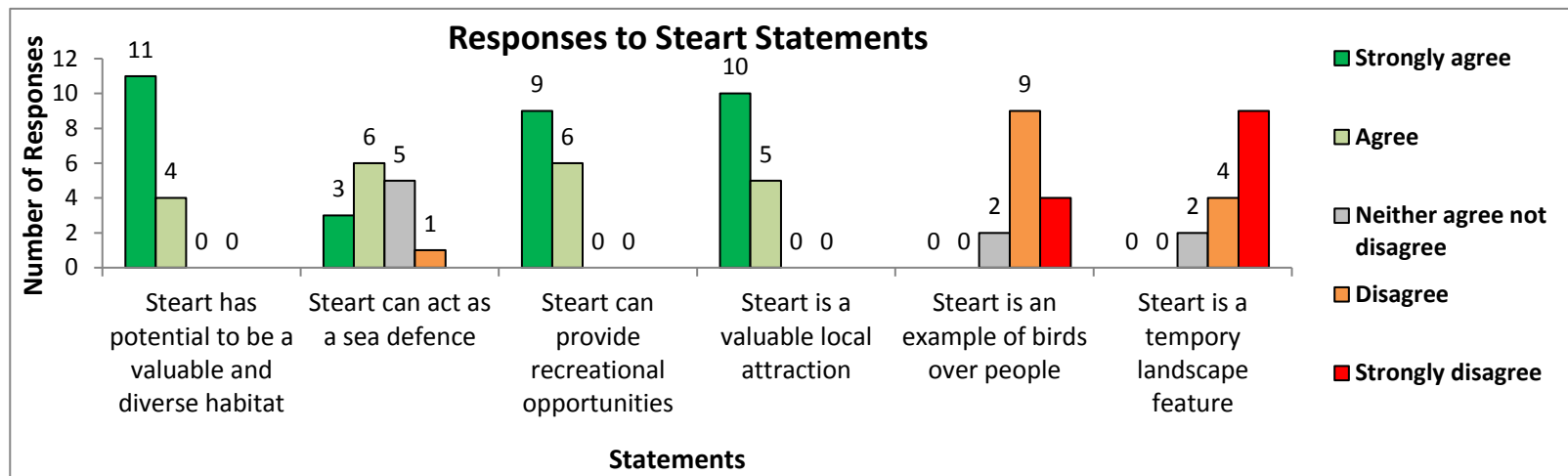
Figure 6: No respondents perceived a difference in the accessibility to the sites. No category contained both perceived positive and negative differences.



Respondent views on statements about the roles and services WWT Steart could provide

- Most respondents strongly agreed that WWT Steart had the potential to develop into a diverse and valuable habitat for wildlife (fig. 7).
- All respondents agreed with the statement that WWT Steart could provide recreational opportunities (fig. 7).
- All respondents agreed that WWT Steart was a valuable local attraction (fig. 7).
- Most respondents disagreed with the statement that WWT Steart is an example of birds being valued over the needs of people (fig. 7).
- Most respondents strongly disagreed with the statement that Steart is a temporary landscape feature (fig. 7). This contrasts with Myatt et al.'s survey findings along the East Anglian coast where they found that most respondents neither agreed nor agreed that managed realignment was a short-term option.
- Nine respondents agreed with the statement that WWT Steart could perform sea defence roles, while five respondents neither agreed nor disagreed (fig. 7). These views are considerably more positive than those found both by Myatt *et al.* (2003) and by Scrimshaw (2003).

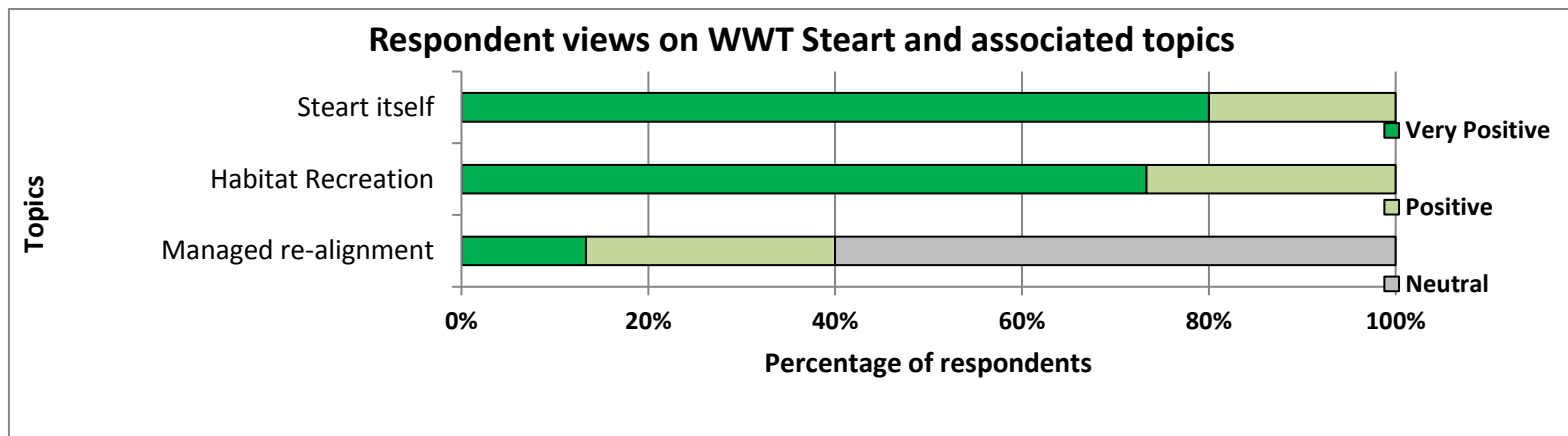
Figure 7: The statement about WWT Steart acting as a sea defence generated more mixed views than other statements which tended to give rise to either positive or negative opinions.



Respondents' views on managed re-alignment, the Steart site, and habitat recreation

- Twelve respondents stated that they felt very positive about the Steart site, with the remaining three stating that they felt positive (fig. 8). This is much more positive than Myatt et al.'s (2003) and Myatt and Scrimshaw's (2003) findings which suggested about half of respondents were in support of similar sites.
- Eleven respondents stated that they felt very positive about habitat recreation projects, with the remaining four stating that they felt positive (fig. 8).
- Nine respondents provided a neutral response relating to their feeling towards managed realignment. Four respondents stated that they felt positive about managed re-alignment, with two felt very positive (fig. 8). A similar finding was obtained in both the Myatt et al (2003) and Myatt and Scrimshaw (2003) studies. In these the overall respondents had viewed the concept of managed re-alignment as mildly positive. Interestingly, although no respondents had negative feelings towards managed realignment, 60% had reported a neutral disposition towards it. This strongly supports the suggestion that views on managed realignment may need to be considered on a local case by case basis (Myatt-Bell and Scrimshaw 2002).

Figure 8: Respondents reported having very similar positive feelings about habitat recreation and the WWT Steart site. No respondents had negative feelings towards any of these topics.



Respondents' views on the importance of issues considered in managed re-alignment schemes

- All respondents stated that they felt habitat conservation was a highly important issue (fig. 9).
- All respondents stated that public access to managed re-alignment sites was of some importance to them, with six respondents stating it was highly important (fig. 9). This is not dissimilar to the Manly (2004) study of Freiston.
- Nearly all respondents felt that provision of recreational opportunities at managed re-alignment sites was of importance, with eight respondents stating it was highly important (fig. 9).
- Most respondents stated that issues concerning flood defence related to managed re-alignment were of importance to them, with five respondents stating it was highly important. Two respondents felt flood defence was neither important nor unimportant to them when thinking about managed re-alignment (fig. 9).
- Over half the respondents felt that the 'View the landscape provides on completion of the scheme' was of some importance, with five respondents stating it was highly important to them. Six respondents felt this aspect was neither important nor unimportant (fig. 9). In both the Myatt et al. (2003) and the Myatt and Scrimshaw 2003 studies, the public mildly agreed that managed realignment schemes could produce visually pleasing landscapes.
- The 'Continuation of any farming practises that may be present at a site' had the widest range of responses of any question. Twelve respondents felt this issue was of some importance, with five respondents stating it was highly important. One respondent stated that it was not very important (fig. 9).

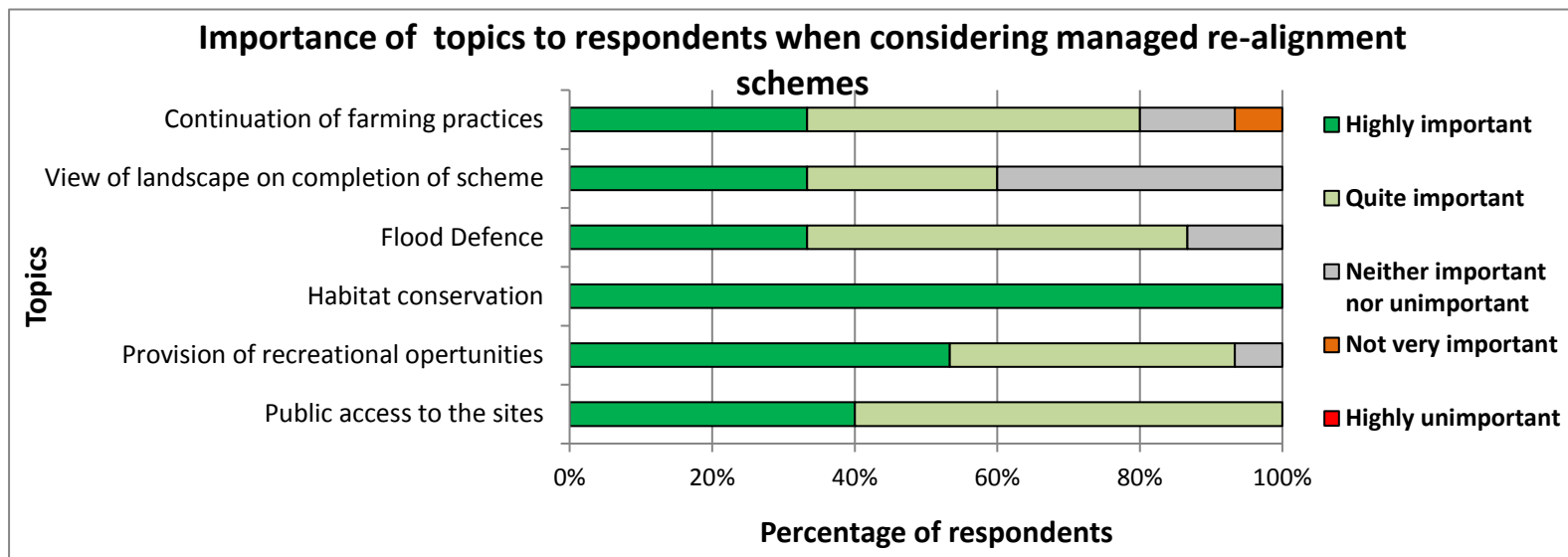
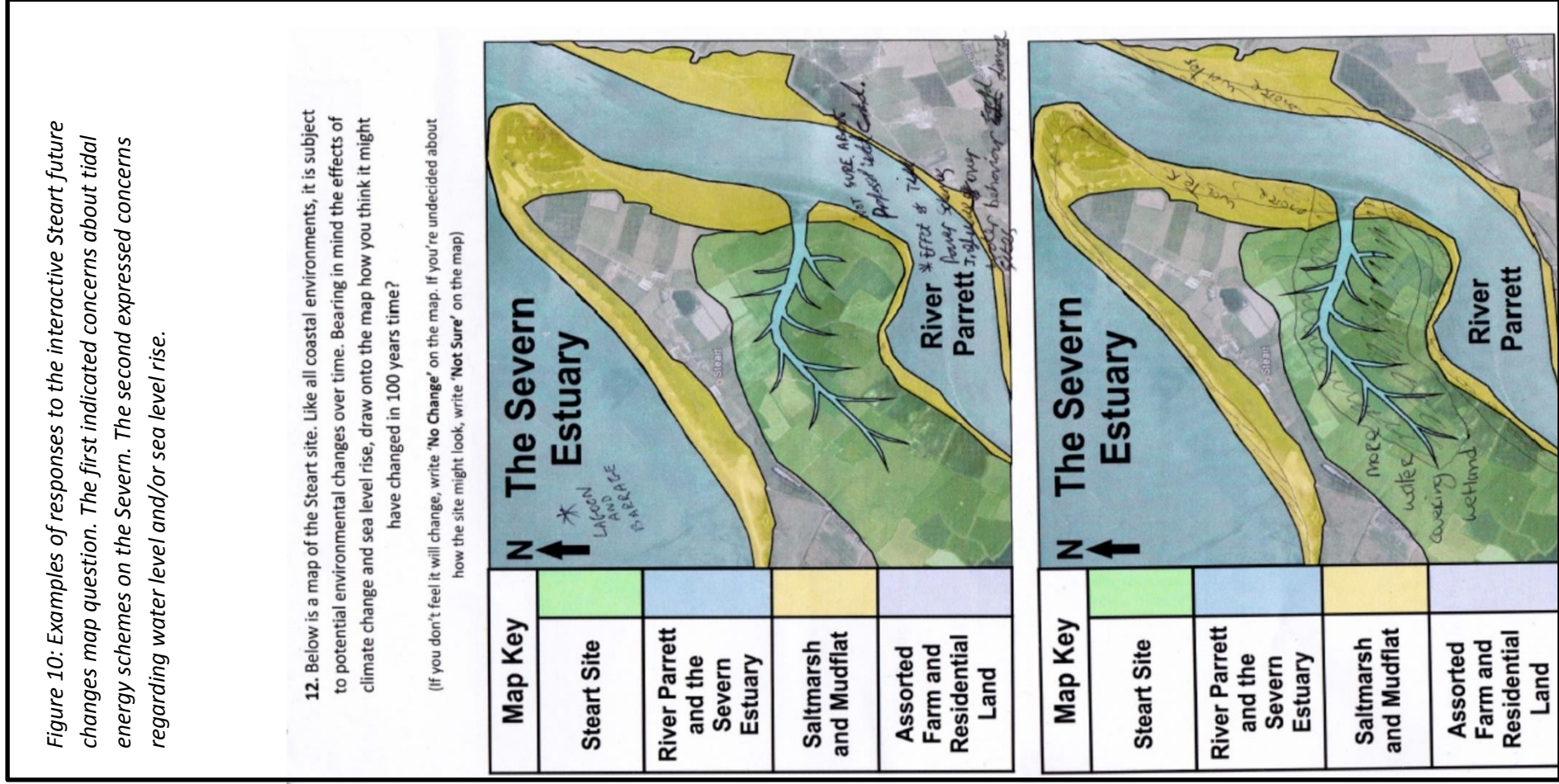


Figure 9: Respondents felt habitat conservation was the most important topic when considering managed re-alignment schemes. Provisions for continuing or creating public access was the other main topic to receive all positive responses.

Respondents' thoughts on the future of WWT Steart

- Respondents were questioned about how they thought the Steart site might change over the next 100 years and were encouraged to draw their ideas of change on a map (Fig. 10). Only three respondents did not answer this question as they felt unsure as to what might change.
- Eight respondents made annotations on the map indicating sea level rise impacts to Steart. These suggested that land would continue to be lost to the sea, with some indicating that sea levels would encroach on the site itself within 100 years. Future sea level change impacts have also been highlighted as a public concern in the Severn Estuary by Thomas (2013).
- Five respondents made notes on the maps related to the site's biodiversity, commenting that it would increase over the next few decades.
- Three respondents made notes concerning physical changes to the Steart landscape. One of these expressed concern over future sedimentation of the Steart breach.

- Three respondents expressed concerns over the potential effects of tidal power in the Severn Estuary on Steart and other similar lowlying wetland sites.
- Two respondents suggested a possible loss of agricultural land with the expansion of the Steart site.



Open comments

- Three respondents made comments about the planning process for managed re-alignment projects and raised concerns about a lack of engagement, particularly regarding information about projects from planning authorities. The comments included “(I was surprised at) how little I was aware that this site existed considering how long the planning must have taken” and “Make it a positive process rather than land loss, more needs to be done to assist people to understand what this all (managed re-alignment) means, there are benefits”, and that “(I) didn’t hear about the site until recently, and I heard that only through a friend who reads the RSPB magazines and things. Should of heard about it sooner, been told about it”.
- Two respondents were concerned that an increase in tourism could ruin the “natural feel” of the site, and the site could be “damaged by people if advertised too much”. This had also been a concern for respondents for the Freiston site (Manly, 2005)
- One respondent commented that adjustments need to be made to the site to improve access for the elderly.
- One respondent commented that there was a risk of dog fouling on the site as a result of dog waste bins not being provided. This had also been a very prominent issue in the Manly (2004) study.

Completion of survey

With weather conditions difficult across the surveying period, this led to few people participating in the survey. However, care taken with the questionnaire design did result in an efficient and effective survey instrument which enabled respondents to fully answer the survey despite the difficult conditions. Most respondents completed the survey in under 15 minutes and questionnaire fatigue was minimised by providing a variety of question styles. Several novel questions generated a lot of interest due to their interactive and customisable nature. These questions encouraged the respondents taking their time to consider answers and provide considerable detail and depth to their responses.

Conclusions

This pilot has successfully:

- 1) Provided a current understanding of public perception of a large-scale managed realignment site within a highly contested estuary environment, the WWT Steart managed re-alignment site on the Severn Estuary
- 2) Investigated the public’s understanding of and attitudes towards future coastal change at such sites and within this to probe into the importance they attribute to natural landscape processes
- 3) Provided a pilot to inform the development of a wider questionnaire survey at other saltmarsh sites around the Severn Estuary.

These results supplement the very few examples of previous research into public perception and use of saltmarsh managed re-alignment exist (Ledoux 2005; Myatt *et al.* 2003). It also represents the first study on sites in the Severn Estuary, and indeed challenge previous research findings xxxx

Some interesting trends regarding the use and perception of this key managed re-alignment site in the Severn Estuary have been identified. Most WWT Steart site users were aged over 50+ and were local. Many strongly agreed with statements suggesting that the WWT Steart site was a valuable local attraction. This suggests that this and possibly other managed re-alignment sites on the Severn Estuary have the potential to be viewed as valuable assets by their local communities. However, at this stage, given the small numbers involved in the pilot, it is impossible to determine whether this is a site specific finding or it has wider credence.

This survey has provided useful insight into how users of managed re-alignment sites perceive differences between sites. Interestingly many respondents clearly noticed differences between the habitat, landscape and species composition of the wetland sites, but very few attached negative or positive opinion to these ecosystem and environmental differences. However, respondents who did notice differences in the provision and type of site facilities (including educational ones for example) did tend to attach negative or positive opinions to these differences. This suggests that the provision of these 'add on' facilities at managed re-alignment sites can be important drivers in influencing public views about the sites. Indeed, it is suggested that these could potentially be more influential than the presence of particular 'rare' wildlife at a site in shaping public attitudes. A novel feature of this survey was the interactive Steart map, inviting respondents to freely express their views on what they felt might change over the next 100 years in and around the Steart managed re-alignment site both in writing and through drawing (Fig. 10). This resulted in a range of fascinating responses and clearly engaged the respondents. However, this aspect of the survey did reveal considerable concerns from some respondents regarding sea level rise impacts on the site and surrounding land. Other points of interest raised by this particular question included a belief that the Steart site would expand and therefore would encroach on surrounding farm land. As noted above, there was also some concern over the potential impact of the Severn Estuary's various tidal power schemes on the site.

Further research

The questionnaire has been designed to be easily adaptable for use at other managed re-alignment sites. Understanding the public's views and opinions related to managed re-alignment will be important for encouraging public acceptance and trust in schemes, particularly around the Severn Estuary and Bristol Channel. Generating positive public perceptions and trust in these schemes is of particular importance here, given the likelihood of many more of these schemes in the Estuary over the next few decades (Atkins Ltd 2010). Given the current requirement to replace lost or damaged habitats designated under Annex I of the Habitats Directive (92/43/ECC), there are likely to be further pressures for the development of compensatory saltmarsh habitats (Tidal Lagoon Cardiff Ltd 2015). It is, therefore, recommended that this research be expanded to encompass the perceptions and uses of further potential and existing managed re-alignment sites and other wetland locations around the Estuary, including the WWT Slimbridge and RSPB Newport sites.

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