

## **Describe the fieldwork and research you undertook to investigate flood risk management in named area**

In March 2015, I collected primary (fieldwork) and secondary (research) data with the aims of investigating flood risk in Taunton, a district in Somerset bordering the River Tone. From research, I found Taunton to have a population of 102,299 (according to a 2001 census on [www.ons.gov.uk](http://www.ons.gov.uk)) and so experiencing a flood, such as the 1966 event costing £1.8 million, would have environmental, social and economic consequences for such a densely populated area. Flood risk has increased from population growth, climate change and destruction of flood plains, making Taunton a vulnerable area. Hence, by investigating flood risk management, I was able to predict future consequences and the likelihood of flooding (an extreme event) reoccurring.

Firstly to investigate flood management in Taunton, I began researching on the 1966 flood event and how it had been managed. Using Wikipedia, which may be unreliable as this is an open-source website, I learnt about the history of flood defences and what is currently in place. For example, flood risk is presently managed through a sluice (a gate controlling water flow) constructed at Newbridge in 1967 (following the previous event). By researching this before carrying out fieldwork, I had some direction of what to look out for when completing a river survey. Furthermore, I used the 'Office of National Statistics' and 'Google Earth' to gain information about employment rates, transport links and housing structures within the area. For example, I found no pictures of houses with structural elevation, suggesting Taunton is not fully protected against floods because by building houses at heights, less flood damage is likely. By using 'Google Earth' for this rather than visiting local areas, I cut fieldwork time, leaving more time for analysis.

For my fieldwork, I began by conducting a bipolar evaluation of flood defences, as these provide the greatest protection and imply flood risk is well managed. I rated each type of defence (such as channelization, embankments, green corridors etc.) from a scale of -3 (very bad) to 3 (very good) according to the following criteria; effectiveness, aesthetics, accessibility, safety and cost. The latter being difficult to measure individually. Thus I later carried out further research, finding the cost of the defences using sites such as [www.geography.org.uk](http://www.geography.org.uk) to supplement my fieldwork. Moreover, I calculated an overall score of each defence, finding that the green corridor was most effective and river wall least. Although this method involved my own opinions, leading to bias, it was nonetheless effective as no ambiguity was involved, I understood the value of each number. I recorded data on paper but later uploaded it to a map using ArcGIS, capturing the exact location where the defence was, alongside my data. By using numerical values, my data became quantitative which later aided my presentation of results as I represented data on graphs. After my bipolar evaluation (which consisted of following the pathway alongside the river and looking out for defences) I carried out a small transect (200m), documenting all the defences seen from walking along the transect which I randomly placed at a location). This enabled me to conclude that flood risk was well managed as I saw a variety of different defences.

Another piece of fieldwork consisted of a questionnaire, asking locals about their opinions of flood management and the associated risks. By asking closed questions (with either yes/no answers), I was able to tally results in excel, leading to manageable data. I conducted my survey, randomly selected participants, in the High St. Bishop's Lydeard (Taunton) where I would receive a large sample size. The majority, after asking twenty people, believed there was a need of flood defences and that they were not prepared. This suggested local authorities do not alert citizens on flood risk its management. By also visiting the high street, I observed Taunton to have many businesses and services, providing citizens with goods and links, all of which are at risk of flooding. This indicated the need of flood management.