

## Student 2 – High Merit

The problem:

Identify the areas' directly at risk and the immediate impact of a volcanic eruption in the Manukau Harbour.

... Earthquakes will be felt by the entire Auckland region but volcanic ash and lava will have a more localised impact. Manukau and Onehunga are the suburbs that will be most directly affected by a volcanic eruption [1] in the Manukau Harbour especially from ash, lava and lava bombs (see map 4) [3]. The main wind a south westerly will carry the ash further across Auckland including the city and this could spread it closer to Auckland city and possibly reaching St Heliers and Mission Bay [2]. The ash cloud is clearly shown on maps 3 and 5 [3].

The biggest problem for transport in the Auckland area would be from volcanic ash. It will affect most roads in the NE-SW corridor, which includes major state highways (1 and 20) and many main roads e.g. Great South Road, Mount Smart Road [4]... shown on map 3 [3]. This will have a major impact on the ability of people to leave the Onehunga-Mangere area which are likely to be severely affected by deep ash falls as they are closest to the vent. The Mangere Bridge will possibly be damaged from the initial shock wave (map 2) and this could further isolate Mangere and make it very difficult for people... Loss of this bridge and road damage especially to SH 20 would further isolate these suburbs and make it difficult for civil defence and emergency services to access the area...[5].