

## Introduction

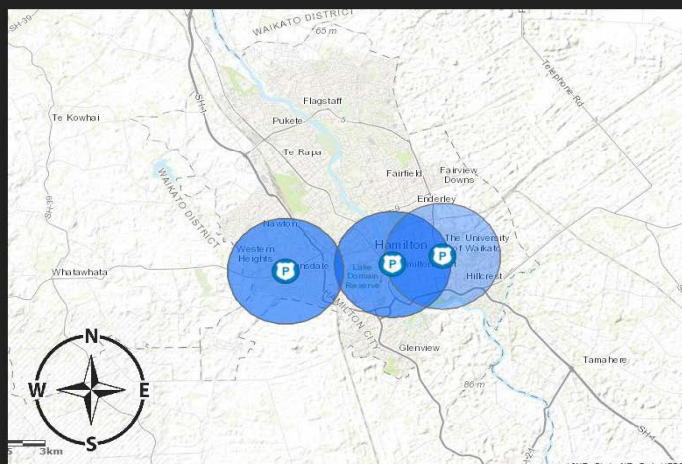
The geographic problem focuses on locating a new police station in Hamilton. The Hamilton Council wants an ideal location for a police station that will not interfere with other stations and will service at least 15,000 residents.

Parameters I will consider are

- Be at least 2 km from the next nearest station.
- Be able to reach at least 15,000 people within a 5 minute drive.
- Cater for an area of Hamilton where the majority of the area is not already catered for by existing stations (e.g. an area that is not already within a 5 minute drive of an existing station).
- Be within 2km from a 'crime hotspot' (an area where an increase of crime is clustered in Hamilton)

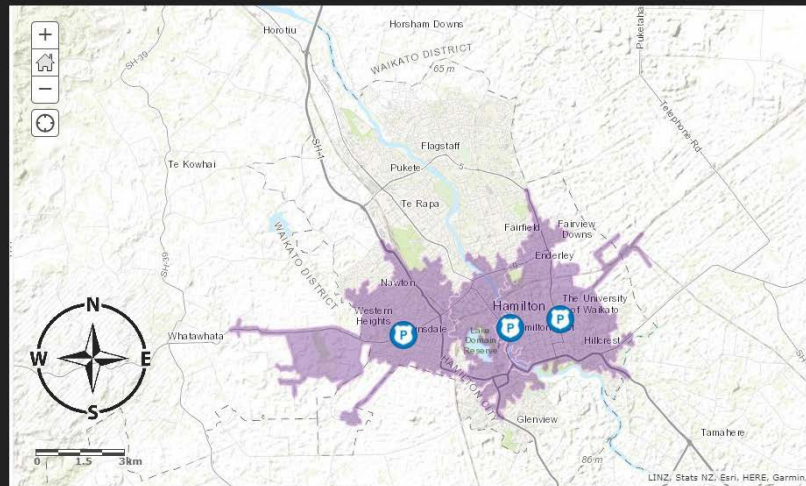
## Current Hamilton Police Stations

This image shows the existing police stations located in Hamilton. Each of the stations have a 2km buffer that shows the area of service (Blue buffer/circle). This shows the 2km area where the police station can service. As you can see the three existing stations overlap one another which is not ideal because it doesn't maximize the amount of people who can be serviced. With these 2km buffer it lets me determine the location for a new police station. Looking at the map Hamilton North has no police stations within a 2km buffer.



## 5 Minute drive time from existing police stations.

This image shows the 5-minute drive time area within the 3 existing police stations. This technique takes into consideration roads unlike the buffers and provides a clearer view of the area easily covered from each police station. This helps determine where a new station can be located because it gives me the rest of Hamilton that is not highlighted in purple. This area is Hamilton North. No existing police stations are located here or with a 5-minute drive time.

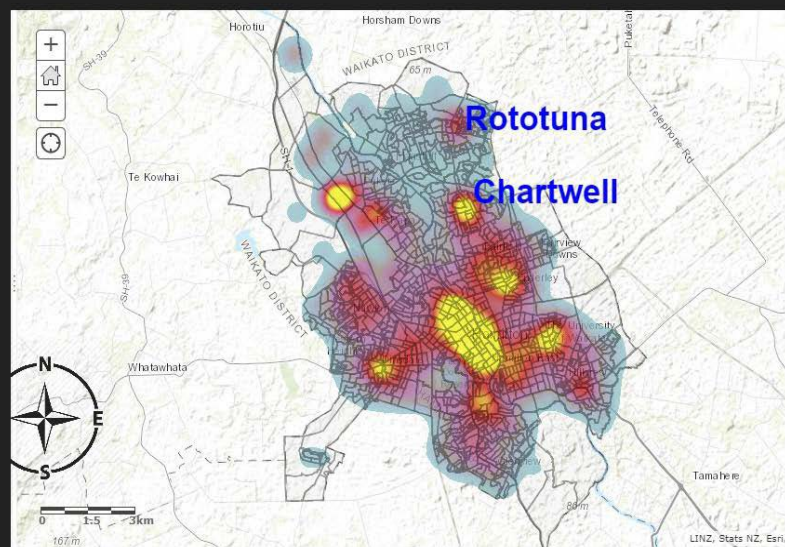


## Image of crime hotspots in Hamilton.

In this image it shows the areas with highest number of crimes in Hamilton using a heat map. This map helps identify where police stations are needed.

I have chosen Rototuna and Chartwell for police stations because of the crime indicated and to cover the northern zone.

On the South of the map has the most crime, which explains why three existing police stations already service these areas.



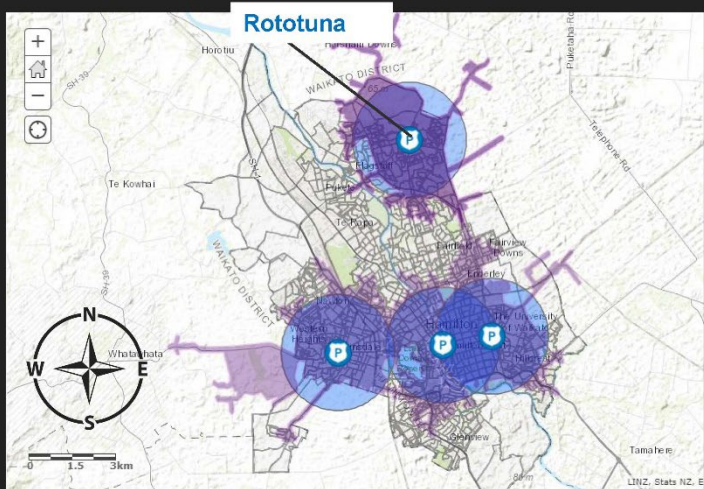


## Location of new police station (1)

As shown in the image the location of new police station at Rototuna. The blue buffer surrounding the police icon is the 2km distance from it. It also does not overlap or interfere with any other existing police stations. The Purple area shows the 5-minute drive time from the set location. This also is not interfering with the existing police stations. The Police icon of the new police station also has the total population of the area within 2km (20,582). This location meets the parameters needed.

One weakness of this location is only services 20,582 residents but as more land in Hamilton North is be turned into residential areas the population will grow. Another weakness is it isn't located in a cluster of crime hot spots. This means more crime is committed away from this station.

A strength of this location is it services lots of different areas like Flagstaff, Huntington and Chartwell. This is a strength because it needs to service high residential areas like these. This also means the amount of people the station can service will increase. Another strength is doesn't take as long to assist people who need emergency services located in northern suburbs.

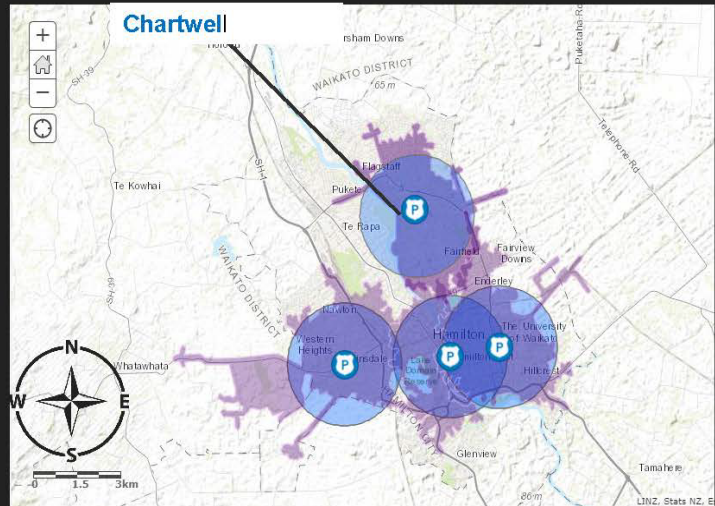


## Location of police station (2)

This map shows the location of new police station at Chartwell. The blue buffer surrounding the police icon is the 2km distance from it showing that It also does not overlap or interfere with any other existing police stations. The Purple area is the 5-minute drive time from the set location. This also is not interfering with the existing police stations. The total population of the area within 2km is 26,056. This location meets all the parameters needed.

A weakness of this location is it is very close to the existing police stations, which means it won't maximize the amount of people who can be serviced.

A strength for this location is it services over 26,000 residents. This is ideal because the more this police station can service means more help for the public. Another strength is it located near a shopping centre which is a crime hotspot.



## Most appropriate location

I believe the police station location (1) located in Rototuna should be added because it does not interfere with any of the three existing police stations. Its five-minute drive time and the 2km buffer clearly shows the distance between the existing stations. Whereas the 2nd location is very close to the existing stations, as shown on slide 10 which shows the 2km buffer and 5-minute drive time around the existing police stations.

This new station will be able to service people located in Flagstaff, Huntington and Chartwell. This is a strength because it needs to service high residential areas like these. This also means the amount of people the station can service will increase. This is one of the strengths of this new station. Another strength is that this new station can service over 20,582 residents. Hamilton North's land is also being turned into more residence areas. This means the population will rise, increasing the amount of people the station can service. This new station also is ideal because it will be fast to assist people who need emergency services in the 5-minute drive time. Whereas the three existing stations will take over 10 minutes to reach people in Rototuna and the Hamilton North region. This station could also cut down crime in the area because it won't take as long to get emergency services to get there. Although this location doesn't service as much as the police station (2) it is located near 2 different crime hotspots, and the population is increasing because of the land that is being used for residence. Another strength is it doesn't take as long to assist people who need emergency services located in this area because it's located with 5 minutes of driving time. This station is 8.8km away from the nearest police station which is a 14-minute drive, which is clearly shown on the maps.

In conclusion police station (1) should be developed. It has strong strengths and logical reasons on why this is the most appropriate location for a new police station in Hamilton.