

A light blue world map is centered on the background of the slide. The map shows the outlines of continents and oceans in a slightly darker shade of blue.

USING ENHANCED ROADS DATA IN NETWORK ANALYST

— IT MAKES A DIFFERENCE

Michael Stokes

NAVIGATE



ROADS DATA IN NETWORK ANALYST

- A good routing or resource allocation decision requires accurate road network data
 - include segment speed, conditions and manoeuvres, turn restrictions, direction
- Use ArcGIS NA and HERE content and feeds
- Outline the data content
- Create some comparisons in NA with traffic feed data.

DATA TO USE

- Initial core data sets – static data, three monthly refresh
- Later products:
 - Historic Data
 - Specialised vehicle characteristics
 - Realtime traffic information (incl incidents)
 - Predictive traffic models
- Historic Data
 - Three year rolling average of 15 and 60 min speeds for each segment – for Mon – Sun
- Specialised Products
 - SPEED LIMITS -
 - Truck Specific attributes (eg height, weight, limits)

DATA CONTENT

- Globally HERE collects billions of GPS and cell phone probe records per month
- Realtime traffic information
 - segment speeds
 - Incidents includes information about current conditions including location of accidents, construction, closures
 - updated every minute
- Predictive traffic models
 - anticipate future traffic conditions in real-time (12 hours)
 - claims improves estimated arrival times of drivers by 20%.
 - Uses HERE algorithms to combine realtime and historic data and trends (holidays, seasonal conditions)

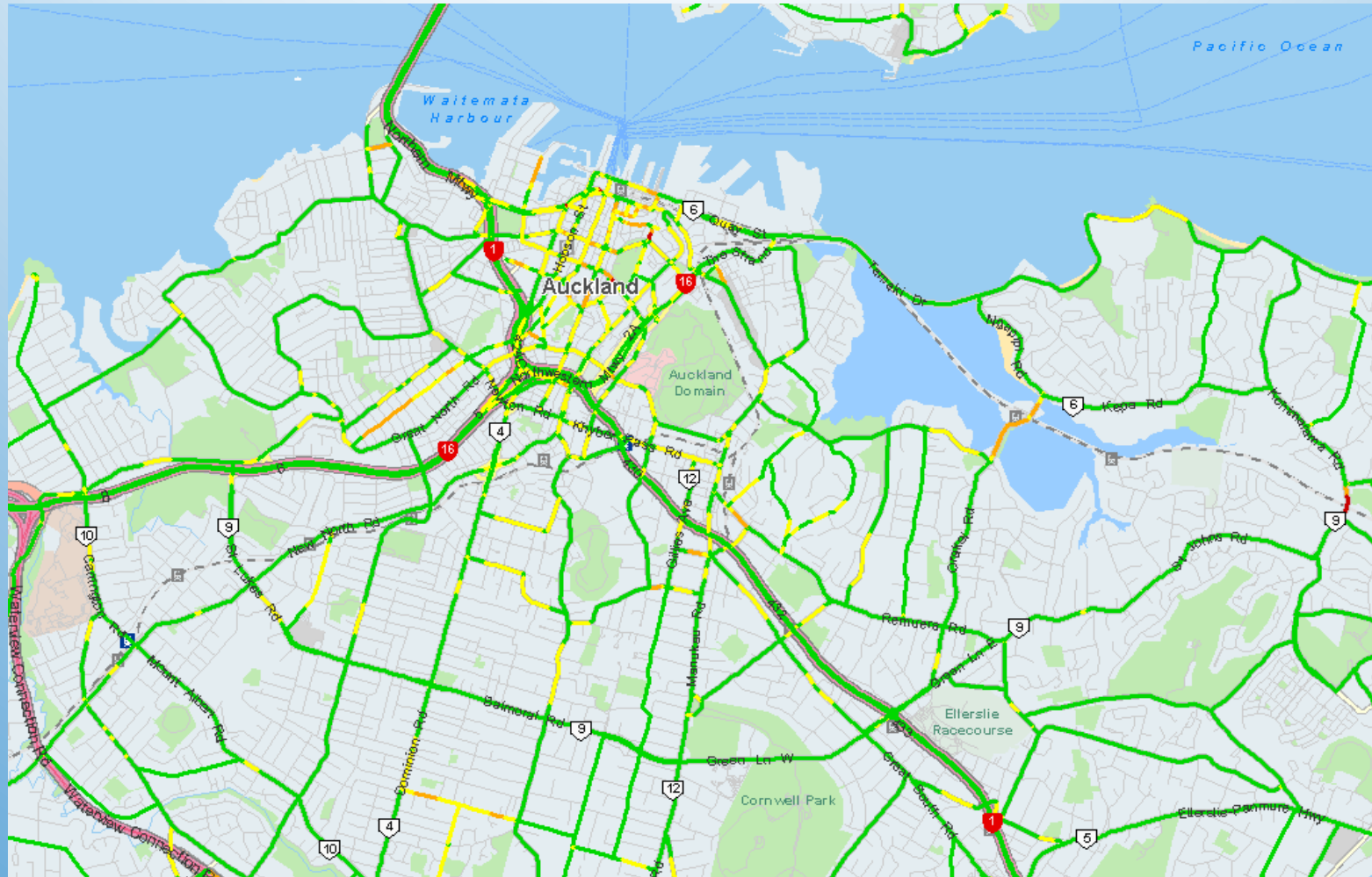
NETWORK ATTRIBUTES

Name	Usage	Units
AllTurnRestriction	Restriction	Unknown
AnyHazmatRestriction	Restriction	Unknown
Avoid 4WD Roads	Restriction	Unknown
Avoid Carpool Roads	Restriction	Unknown
Avoid Ferries	Restriction	Unknown
Avoid Gates	Restriction	Unknown
Avoid Motorways	Restriction	Unknown
Avoid Private Roads	Restriction	Unknown
Avoid Roads Under Construction	Restriction	Unknown
Avoid Toll Roads	Restriction	Unknown
Avoid Tunnels	Restriction	Unknown
Avoid Unpaved Roads	Restriction	Unknown
BDoublePreferredRoute	Restriction	Unknown
BTriplePreferredRoute	Restriction	Unknown
DividerRestriction	Restriction	Unknown
Driving_a_Bus	Restriction	Unknown
Driving_a_Car	Restriction	Unknown
Driving_a_Delivery_Vehicle	Restriction	Unknown
Driving_a_Taxi	Restriction	Unknown
Driving_a_Truck	Restriction	Unknown
Driving_an_Emergency_Vehicle	Restriction	Unknown

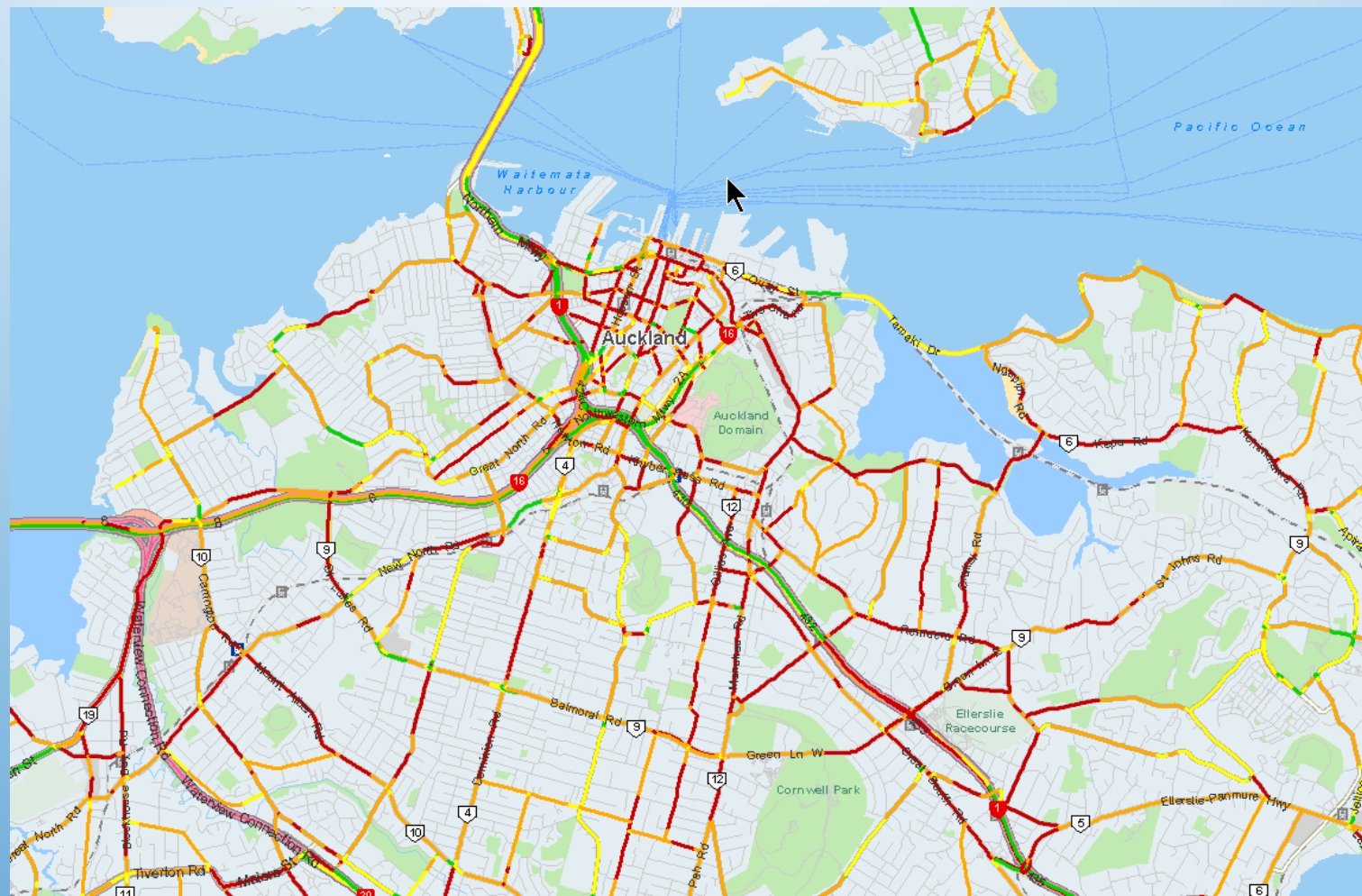
FreeFlowTime	Cost	Minutes
HeightRestriction	Restriction	Unknown
Hierarchy	Hierarchy	Unknown
Length	Cost	Meters
LengthRestriction	Restriction	Unknown
Manoeuvre_Class	Descriptor	Unknown
MaxAxles	Descriptor	Unknown
MaxHeight	Descriptor	Meters
MaxLength	Descriptor	Meters
MaxTrailers	Descriptor	Unknown
MaxWeight	Descriptor	Unknown
MaxWeightPerAxle	Descriptor	Unknown
MaxWidth	Descriptor	Meters
Mod_Time	Cost	Minutes
No Public Access	Restriction	Unknown
NumberAxleRestriction	Restriction	Unknown
NumberTrailersRestriction	Restriction	Unknown
Riding_a_MotorBike	Restriction	Unknown
RoadClass	Descriptor	Unknown
SemiTrailerTractorRestriction	Restriction	Unknown
SingleAxleRestriction	Restriction	Unknown
TandemAxleRestriction	Restriction	Unknown

Through Traffic Restricted	Restriction	Unknown
Time	Cost	Minutes
Time_Using_SpeedKPH	Cost	Minutes
Time_Using_SpeedLimit	Cost	Minutes
TimeZone	Descriptor	Unknown
TransportPreferredRoute	Restriction	Unknown
Truck_Time_Using_SpeedLimit	Cost	Minutes
Walking	Restriction	Unknown
WalkingTime	Cost	Minutes
WeekdayFallbackTime	Cost	Minutes
WeekendFallbackTime	Cost	Minutes
WeightPerAxleRestriction	Restriction	Unknown
WeightRestriction	Restriction	Unknown
WidthRestriction	Restriction	Unknown

NA – REALTIME DATA – 2:20 AM 15 AUG

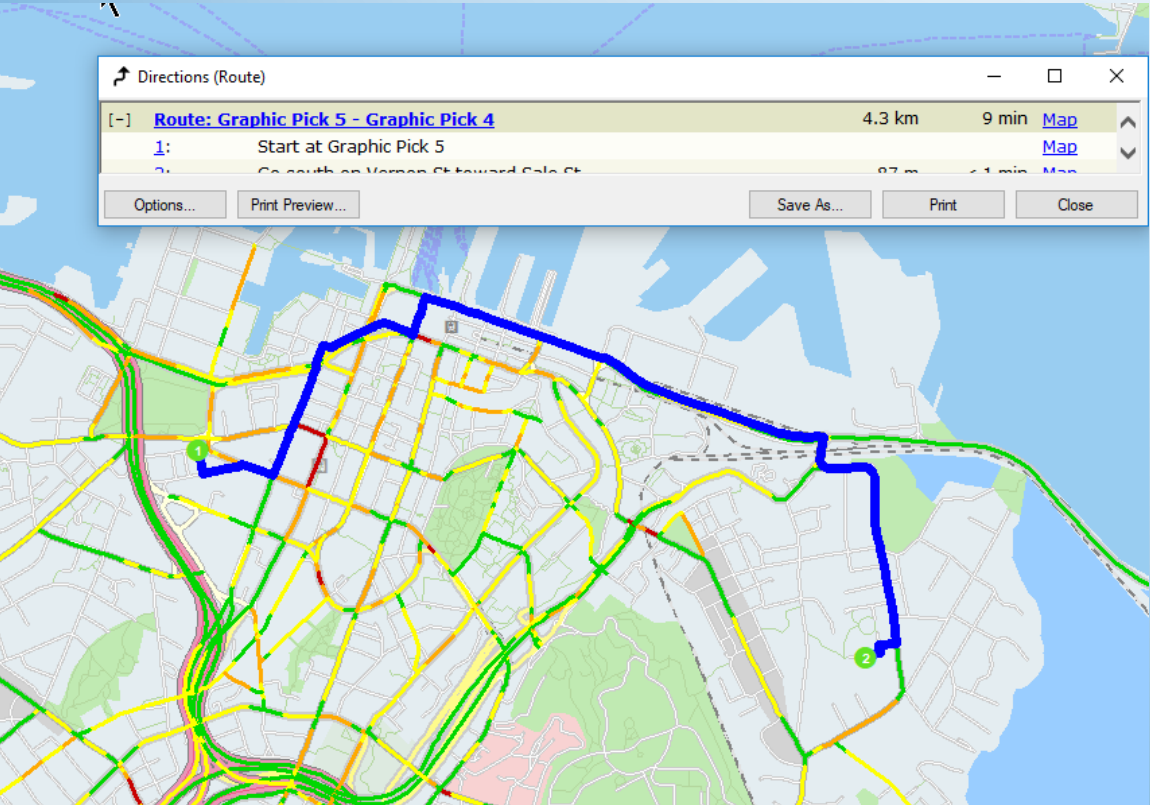


NA – REALTIME DATA – 6:20 AM 15 AUG

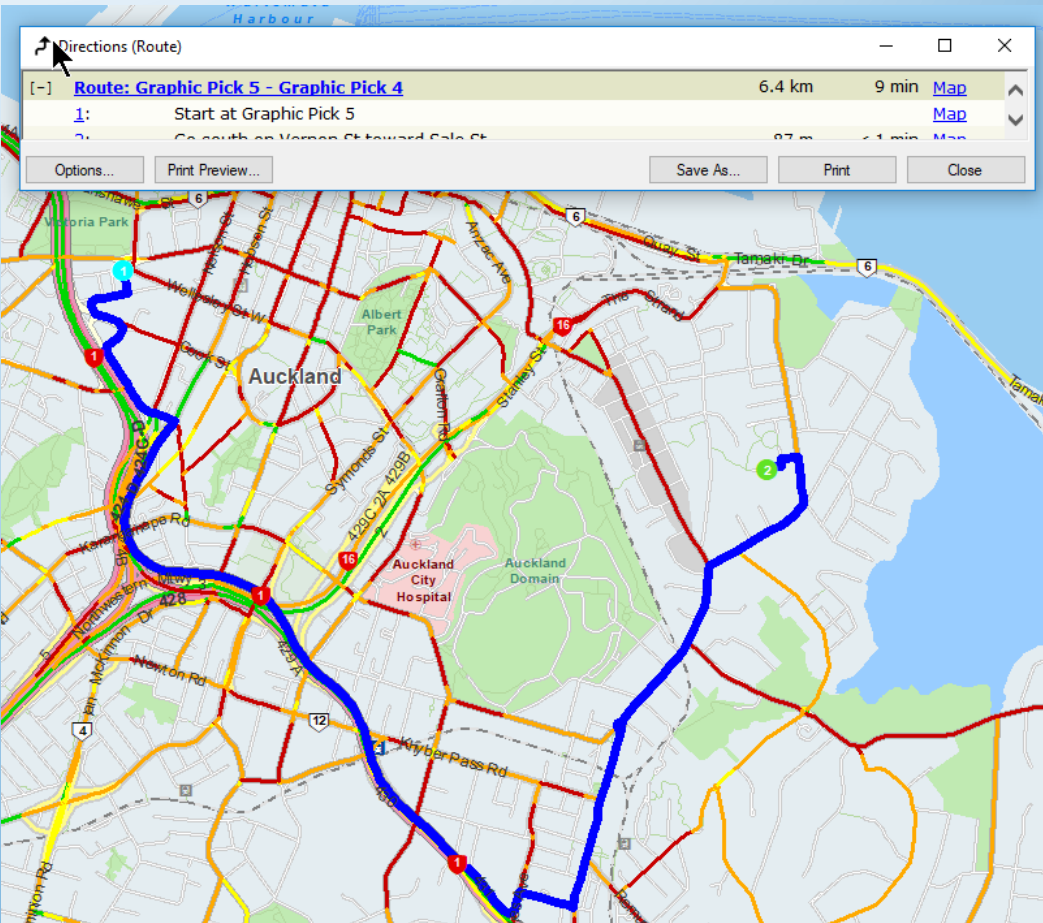


SINGLE ROUTE - 15 AUG

2:20 AM



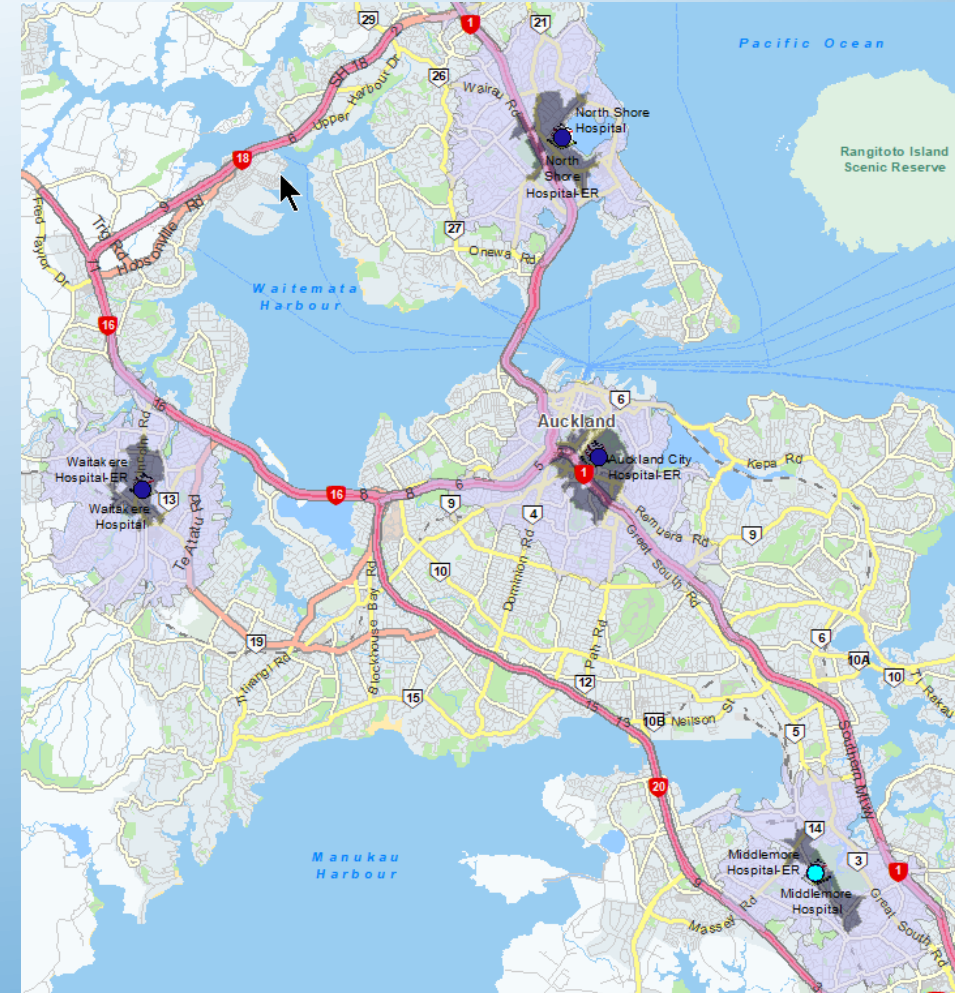
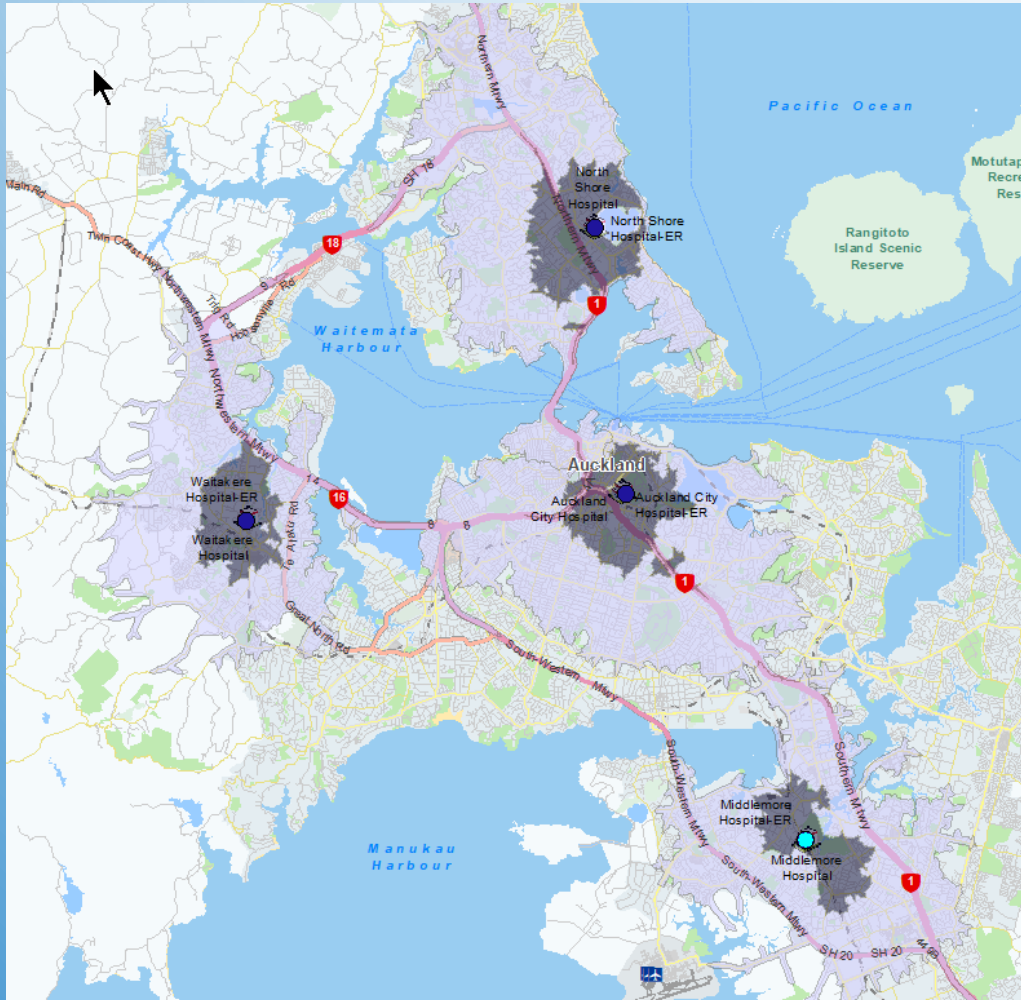
6:20 AM



SERVICE AREAS – HOSPITALS

2:20 AM

7:40 AM



IT MAKES A DIFFERENCE

- Better answers come from better data
- Use the most current data available
- Time critical response calculations enhanced