



Hamilton Region Update

SNUG – Dec 2019

Resilience



Documentation (complete)

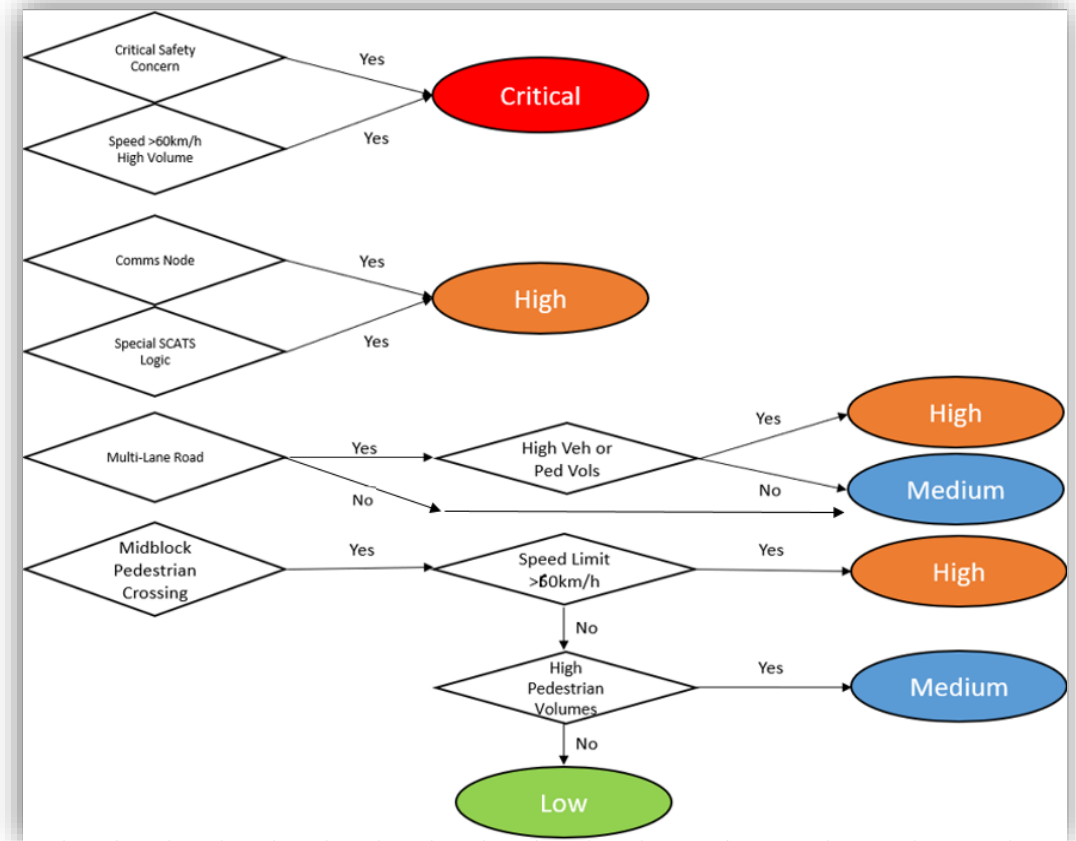
- **Business Continuity Plan** (BCP) – guide to dealing with business disruptions (staff, place of work, etc)
- **Risk Register** – key risks with transport operations (all types)
- **Incident Response Plans** – staff approach to dealing with a crash, ITS failure etc

Traffic Signal Redundancy (in progress)

- **SCATS failover**
- **Detour routes** with pre-timed incidents in SCATS
- **Site redundancy** (based on classification)

Resilience – site redundancy

- **Classification** of all signal sites
 - Worked with WSP on this
 - Low, Med, High, and Critical
 - Classification drives measures (power, comms, CCTV etc)
- **Backup communication**
 - All “Critical” and “High” priority sites (roughly ½ of our intersections)
 - Auto fail-over to backup comms by monitoring main line end-to-end
 - Completely separate telco
- **Backup Power**
 - Outage info from lines company suggest few outages (worst sites 1-2/yr) and short duration
 - Likely predominantly generator based.. Can’t justify UPS??



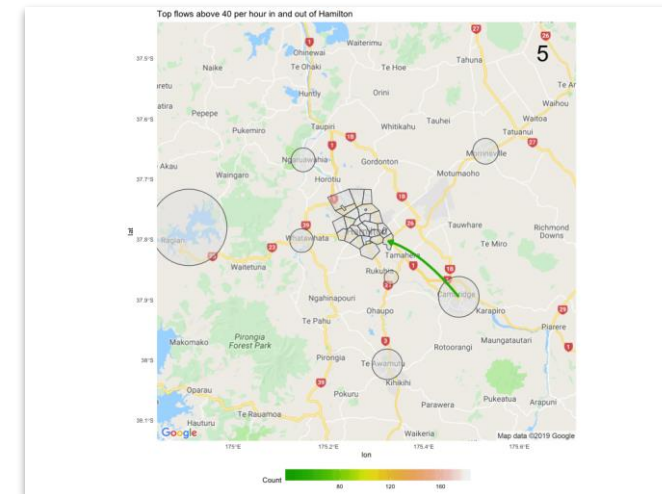
Data and Insights

- Focus on good data, and turning that into useful insights
- We want to understand how people are moving around the city
- Why? So we can **support strategic decision** making, **enhance operations**, and **better inform** customers



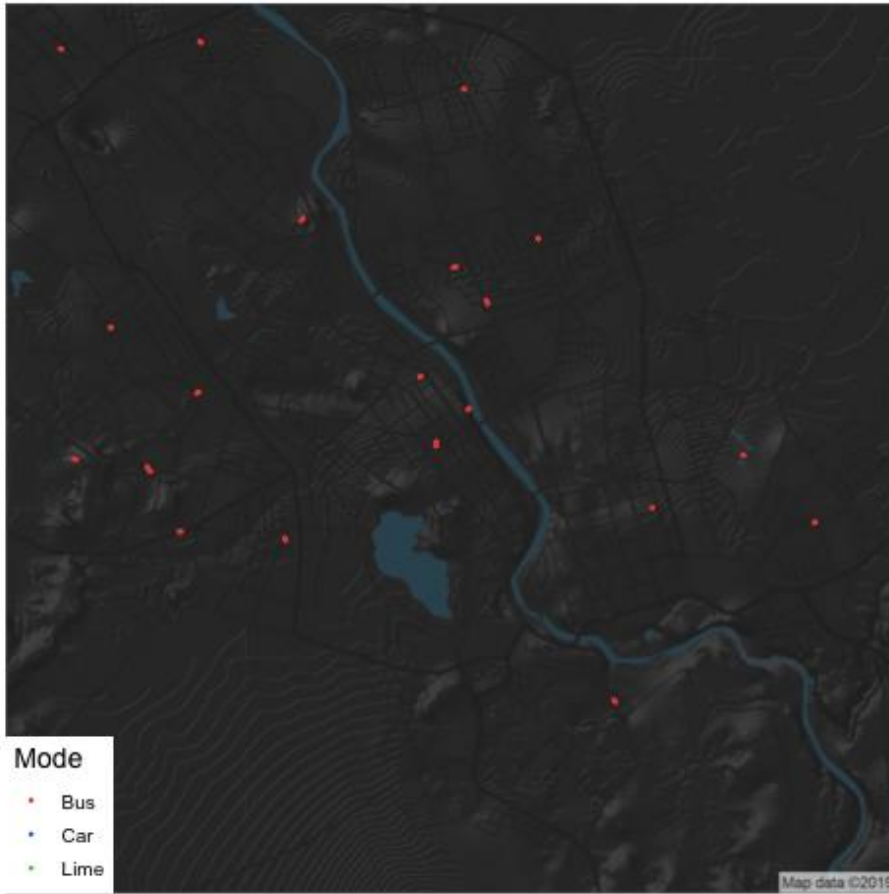
Data and Insights - learnings

- Look at **desired outcomes** before choosing data sources (e.g. mode share)
- Is our data **representative** – report all modes, consider specific users such as those in wheelchairs
- **Combine datasets**, e.g. total journey, overlay to find gaps in the network
- Agree on data **ownership** – custodians of data (supplier agreements vs partnerships)
- Make the data available through **self serve dashboards** – this adds value to others (and reduces work)
- Hire data scientists!

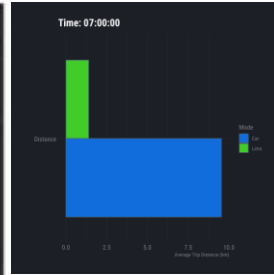


Data is enhancing...

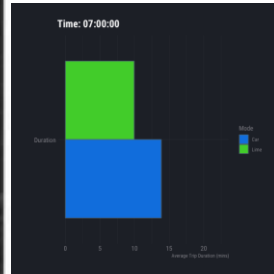
Time 2019-06-07 07:00:00



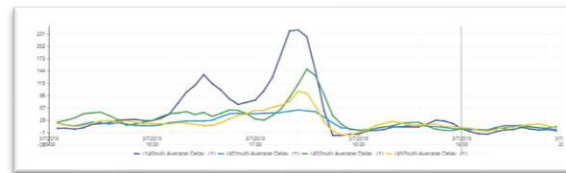
Understanding the effects and impacts of events



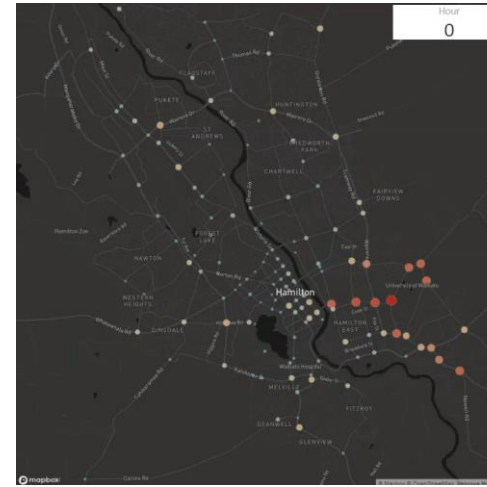
Trip Distance



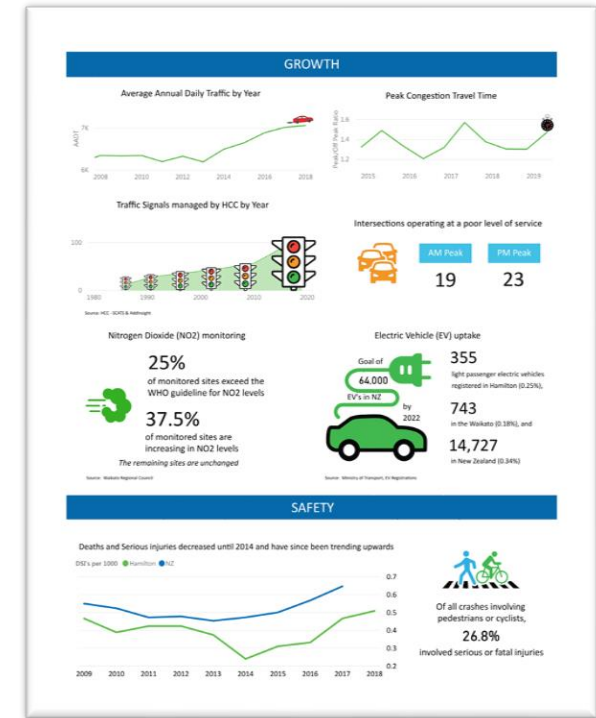
Trip Duration



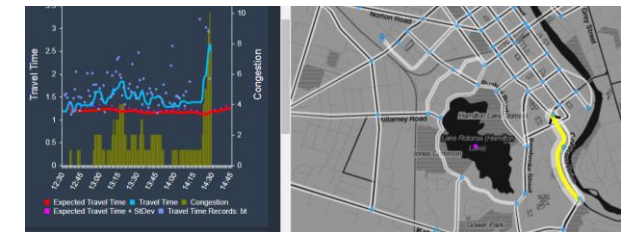
Traffic management planning



Walking and cycling projects



Report cards and dashboards



Proactive operations and optimisation

Transport Data Analytics Platform (TDAP)

- Minimum Viable Product combines 6 live data sources (complete)
- Allows insights across data (e.g. multiple minor alerts at the same site = Major alert)
- MVP successful so further development underway to complete the product

The screenshot displays the Transport Data Analytics Platform (TDAP) interface. The top navigation bar includes the title "Transport Data Analytics Platform" and several icons: SCATS, AddInsight, Bus Network, Icon Guide, and Logout. The user is identified as "John Kinghorn Maintenance Operator".

The main interface is split into two panels. The left panel, titled "Alerts", contains a search bar and a list of alert sites:

- Site 2 - Hall/Kent: DA, XU | SRM | AddInsight | an hour
- Site 70 - Wairere/River: SRM | AddInsight | 26 minutes
- Site 8 - Anglesea/Hood: DA, XU | SRM | AddInsight | 2 months
- Site 107 - Pardoia Blvd/Spine Rd/: DA, XU | SRM | 2 months
- Site 89 - Morrinsville Rd/Ped xing/: XU | SRM | 2 months
- Site 96 - Horsham Downs Rd/Ped xing/

The right panel shows a map of the Pukete and Te Māpa area. The map displays various roads and landmarks, including the Waikato River, Pukete Rd, Thomas Rd, Wairere Dr, and several bus routes. A red line highlights a specific route or area on the map.

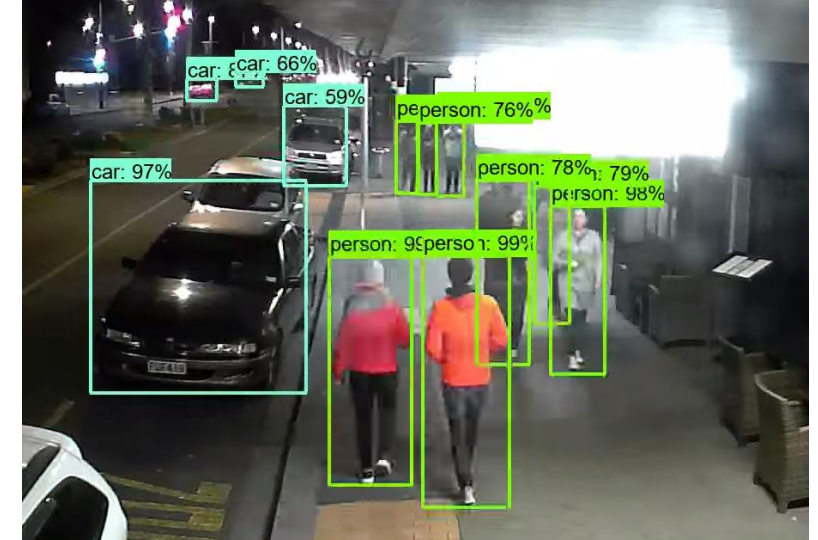
Raised Safety Platform (RSP) at signals

- Gordonton/Thomas traffic signal RSP
- First in NZ, collaboration with NZTA safety group
- 85th %ile speed went from 80km/h down to <50km/h
- Crashes went from 18/yr down to 0 (so far)
- Intersection considered “Safe System” with signals
- Won Trafinz road safety leadership award
- Ramp design & construction is critical
- More RSP coming in Hamilton – by default now!



Other stuff

- **Regional variation to P43**
 - With help from WSP
- **Wheelchair train button**
- **VC6 and ELV as standard**
 - Required ELV luminaires for S/L
- **Bus transponder**
- **Camera auto-look at controller**
 - Following forced entry to controller
- **CCTV analytics**
 - Counting peds, cyclists, cars, trucks
 - Pedestrian paths and dwell times
 - Full system pilot scheduled for Feb 2020




Thank you

FURTHER INFORMATION

Hamilton City Council
Garden Place, Private Bag 3010, Hamilton

 /HamiltonCityCouncil

 @CouncilHamilton

 07 838 6699

hamilton.govt.nz

John.Kinghorn@hcc.govt.nz