



ROAD SAFETY
RESEARCH, POLICING AND EDUCATION
CONFERENCE 2013

A Case Study of the Crash Reduction Potential of RISA on Local Rural Roads in New Zealand

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Jon England
John Hannah
Sam Wilkie

MWH
Impact Transport Consulting
Projenz



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BUILDING A BETTER WORLD

- What is **RISA**
 - **R**oad **I**nfrastructure **S**afety **A**ssessment
 - practical evidence based tool
 - assesses the contribution that road infrastructure features make to road safety
 - used on rural sealed roads in territorial local authorities
- Developed by NZ Transport Agency under Dr Ian Appleton (2002 – 2006)
 - Developed as a network risk assessment tool
 - Can also be used for corridor assessment
- Fully operational throughout NZ (2007 – 2011)
 - 50 RISAs were completed

Case Study Locations



**Queenstown Lakes
District Council**



Queenstown Lakes DC

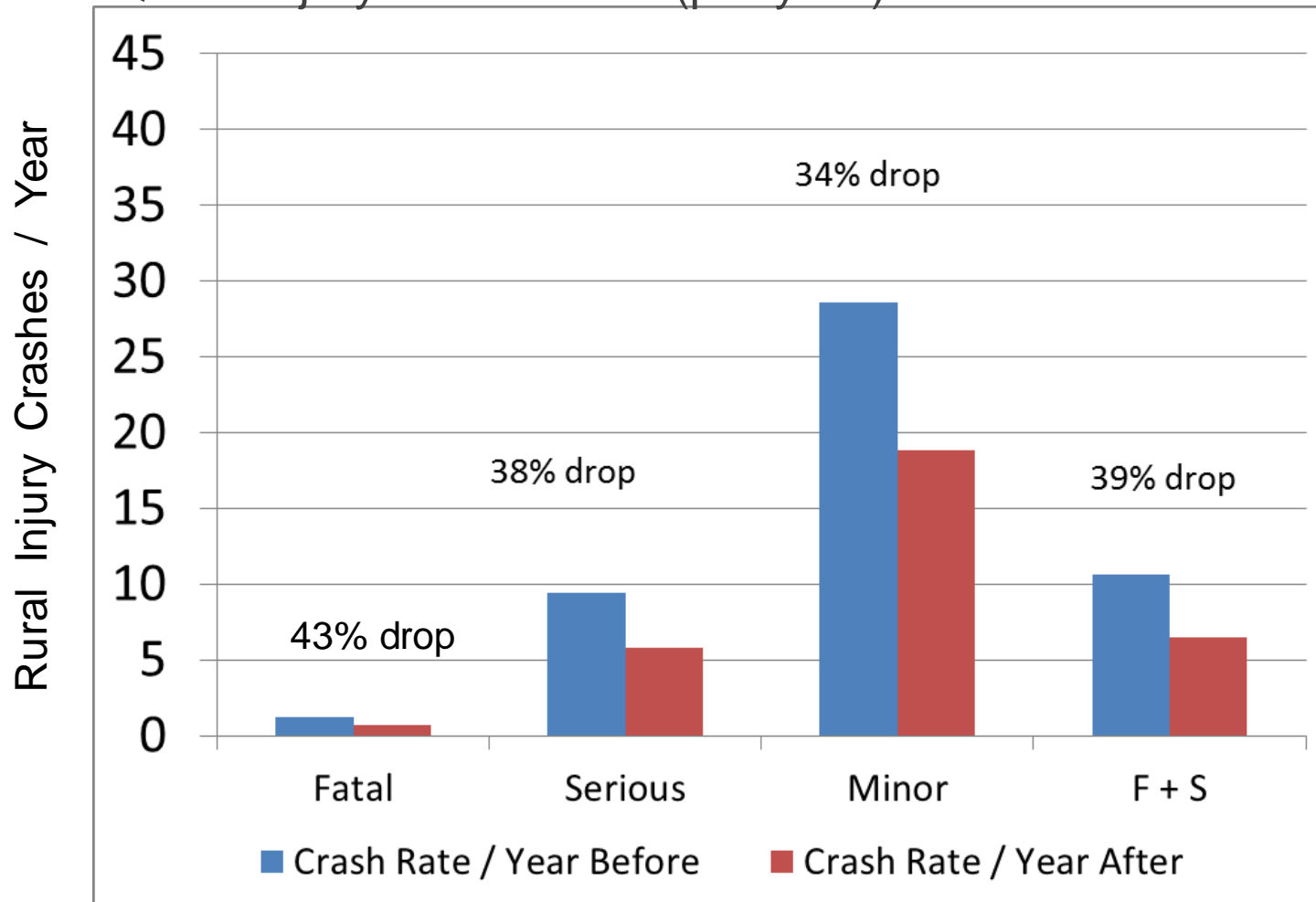


- RISA undertaken in April 2010
- QLDC's sealed rural road network amounts to 261 km
 - (34% or 89 km was assessed by the RISA Team)
- RISA Recommendations carried out
 - Shoulder widening where pavement rehabilitation carried out
 - Edge Marker Post setting out, maintenance and standards reviewed
 - Delineation upgraded throughout district
 - Out of Context Curves appropriately signed
 - Curve Warning Signs in accordance with Manual (MOTSAM)
 - Improved maintenance practices at intersections
 - Avoid loose chip
 - Avoid patchy pavement and flushing
- NZTA's Crash Analysis System (CAS) Crash Data assessed
 - Before : 5 years
 - After : 2 years 11 months (to 31 March 2013)



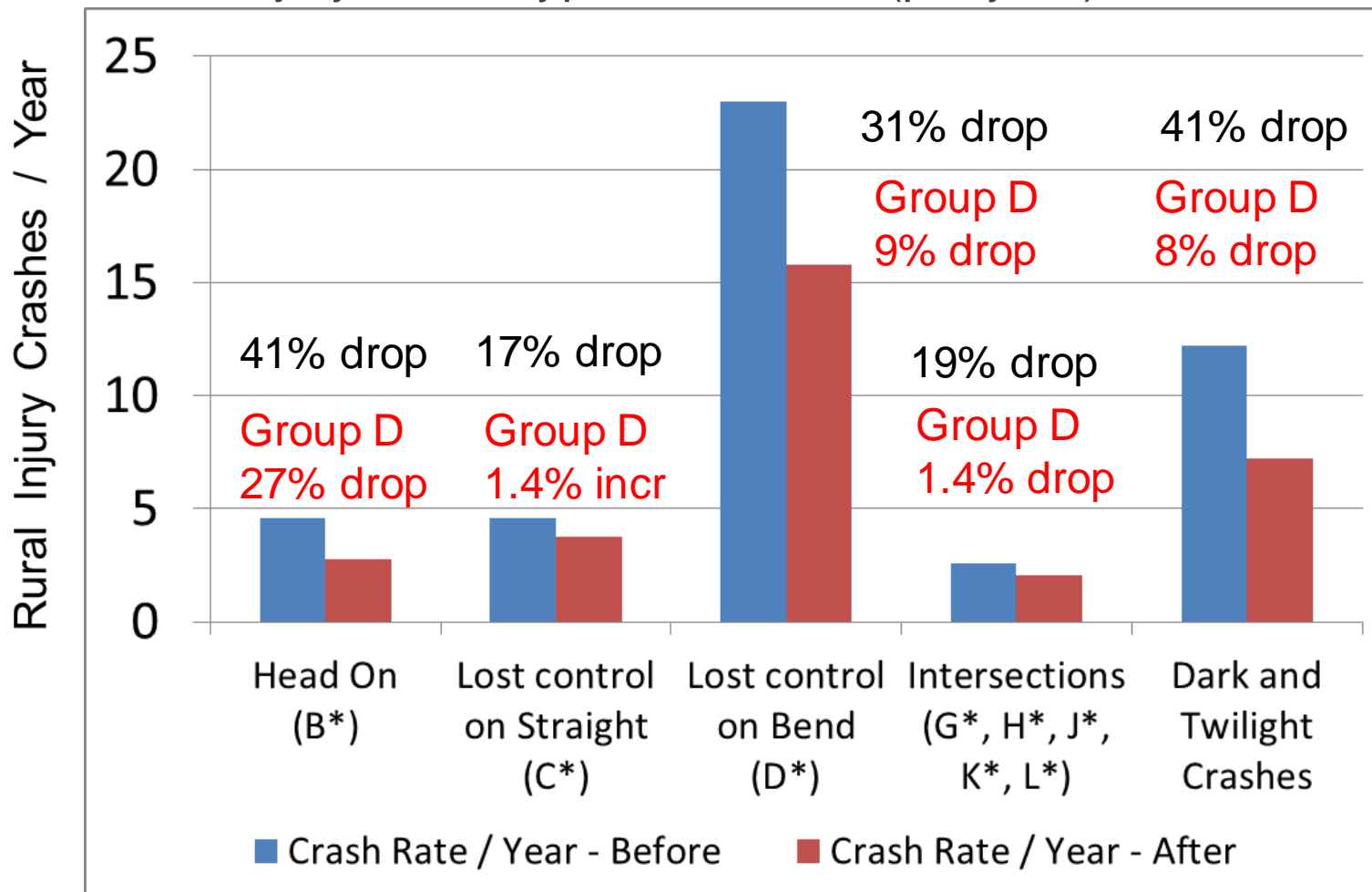
Queenstown Lakes DC

- QLDC Injury Crash Rates (per year) before and after RISA



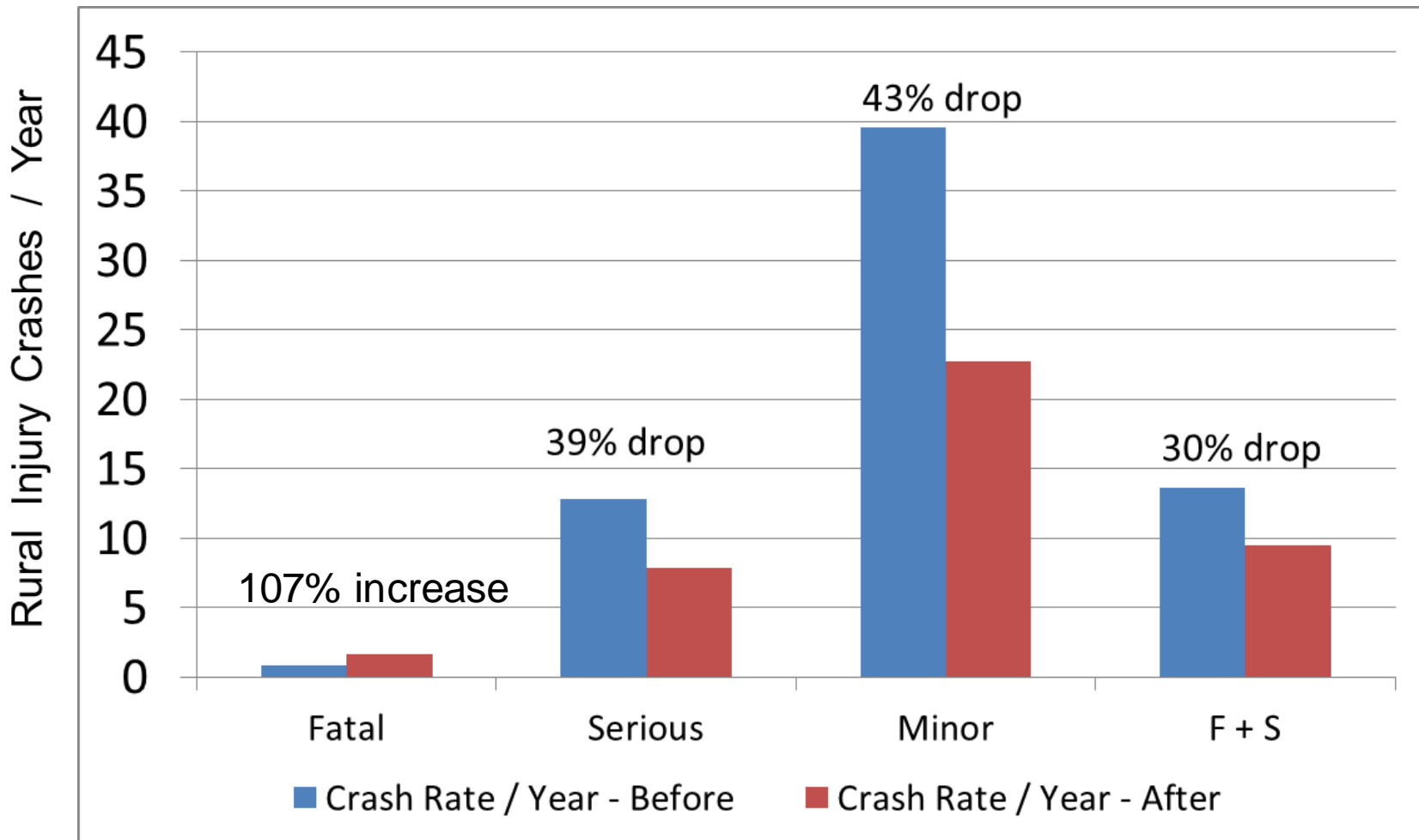
Queenstown Lakes DC

- QLDC Injury Crash Type Crash Rate (per year) Before and After RISA

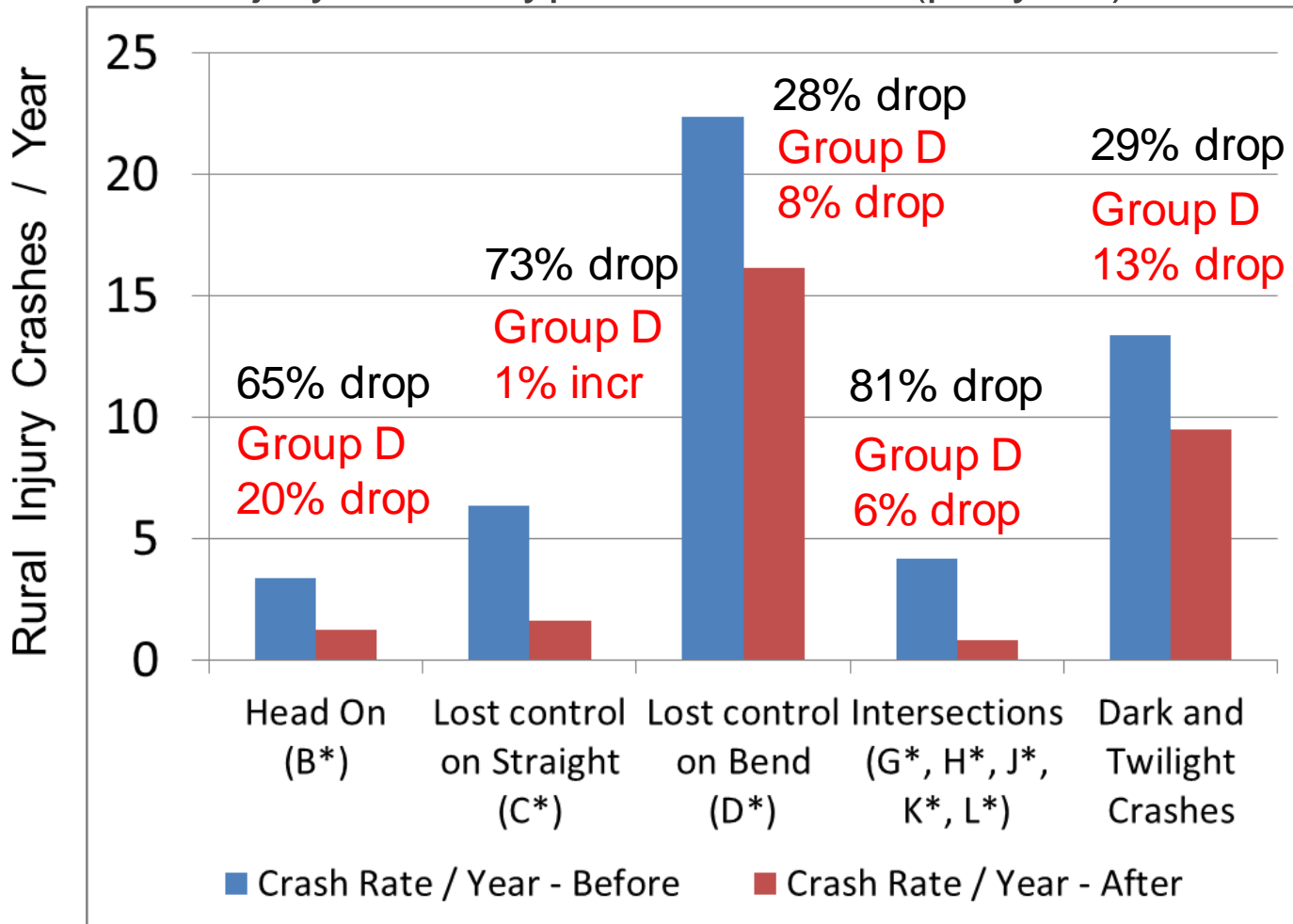


- RISA undertaken in October 2010
- DCC's sealed rural road network amounts to 389 km
 - (18% or ~ 69 km was assessed by the RISA Team)
- RISA Recommendations carried out
 - Installation of Edge Marker Posts
 - Guardrail identified, programmed and progressively installed at high risk locations
 - Reviewed when reseals are scheduled
 - particularly on routes with high volumes of tourist / visitor traffic
 - Reduced speed limits on some roads
 - All warning signage reviewed for consistency
 - Roadside hazards identified and prioritised for treatment
 - power poles, trees, drop offs, drainage features, etc.
- NZTA's CAS Crash Data assessed
 - Before : 5 years
 - After : 2 years 5 months (to 31 March 2013)

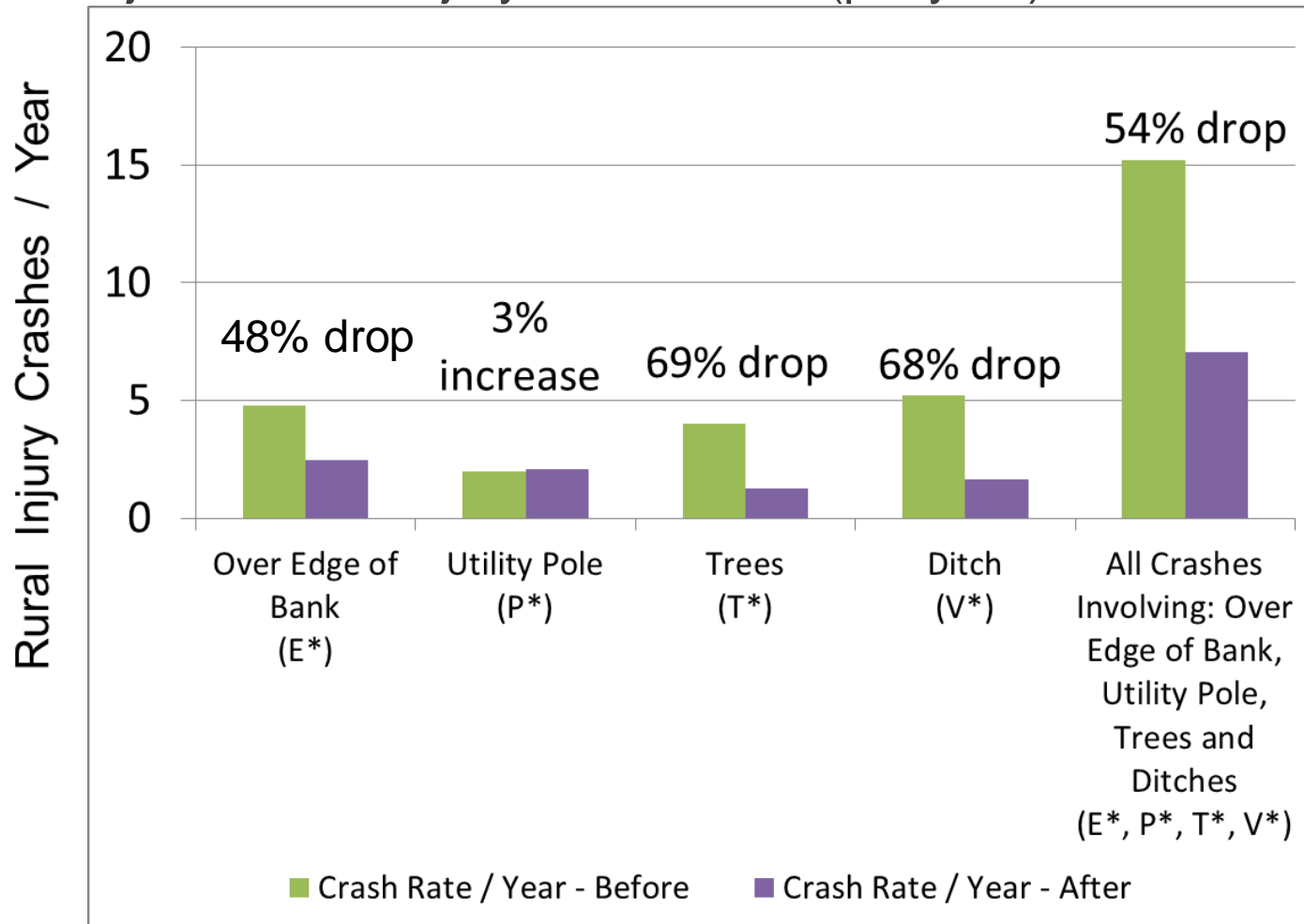
- DCC Injury Crash Rates (per year) before and after RISA



- DCC Injury Crash Type Crash Rates (per year) before and after RISA



- DCC Objects Struck Injury Crash Rates (per year) before & after RISA



Conclusions & Recommendations



- Conclusions

- Crash data from both council areas showed a drop in crashes
 - Across all crash types
- Post RISA crash data limited by available data (between 2½ and 3 years)
- Crash reduction may be due to other factors
- RISA is a useful tool for local council staff to utilise to address crash risk on their sealed rural road network

- Recommendations

- Carry out further analysis of other local authorities
- Use longer post RISA crash data to confirm validity of data against a wider study group



Thanks to

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