

# THEME 5 - EVALUATION REPORT

How can telecommunications data help government to understand whether there have been changes to ecotourism behaviours in response to COVID-19, and if behaviour has changed, what impacts are there on ecotourism development including, marketing and infrastructure needs in local economies?



**RIDL**  
RELATIONAL INSIGHTS DATA LAB  
*Making Data Matter*

**Griffith UNIVERSITY**  
Queensland, Australia

**DSpark**  
people.movement.insight.

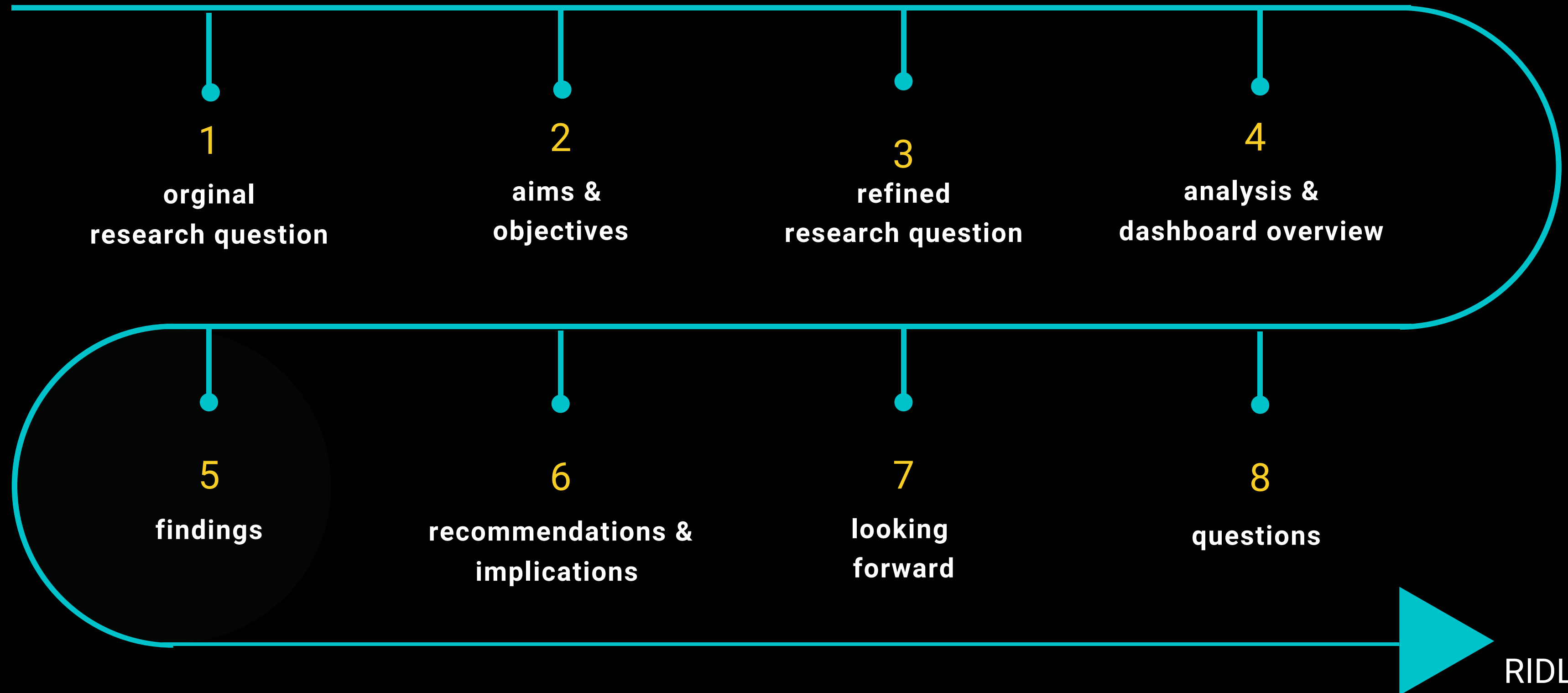
**QUEENSLAND FIRE AND EMERGENCY SERVICES**

**Queensland Government**



# PROJECT THEME 5 - EVALUATION REPORT TIMELINE

How telecommunications data can be used to better understand eco-tourism behaviours?



# OUR THEME 5 PARTNERS



**Queensland**  
Government



**Queensland**  
Government

**Department of Tourism,  
Innovation and Sport**

**DSpark**  
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# **THE ORIGINAL RESEARCH QUESTION:**

How can telecommunications data help government to understand whether there have been changes to tourism behaviours in response to COVID-19, and if **behaviour** has changed, what impacts are there to future transmission risk and infrastructure needs of local economies?





# PILOT AIMS & OBJECTIVES

- determine whether DSpark data could be used to understand ecotourism demand and travel behaviour in a given area
- identifying ecotourism sites with the potential to grow overnight stays and midweek visitation through accommodation development and targeted support
- identify high visitation areas with opportunities for ecotourism development adjacent to national parks
- better target marketing and promotion to nature-based travellers in specific ecotourism locations
- highlight any significant changes in travel behaviour to ecotourism locations due to COVID-19 and the likely impacts a future pandemic or severe natural disasters might have and how to target support
- determine whether the changes in travel behaviour are persisting or reverting post-COVID



# THE REFINED RESEARCH QUESTION:

How can telecommunications data help government to understand whether there have been changes to ecotourism behaviours in response to COVID-19, and if behaviour has changed, what impacts are there on ecotourism development including, marketing and infrastructure needs in local economies?



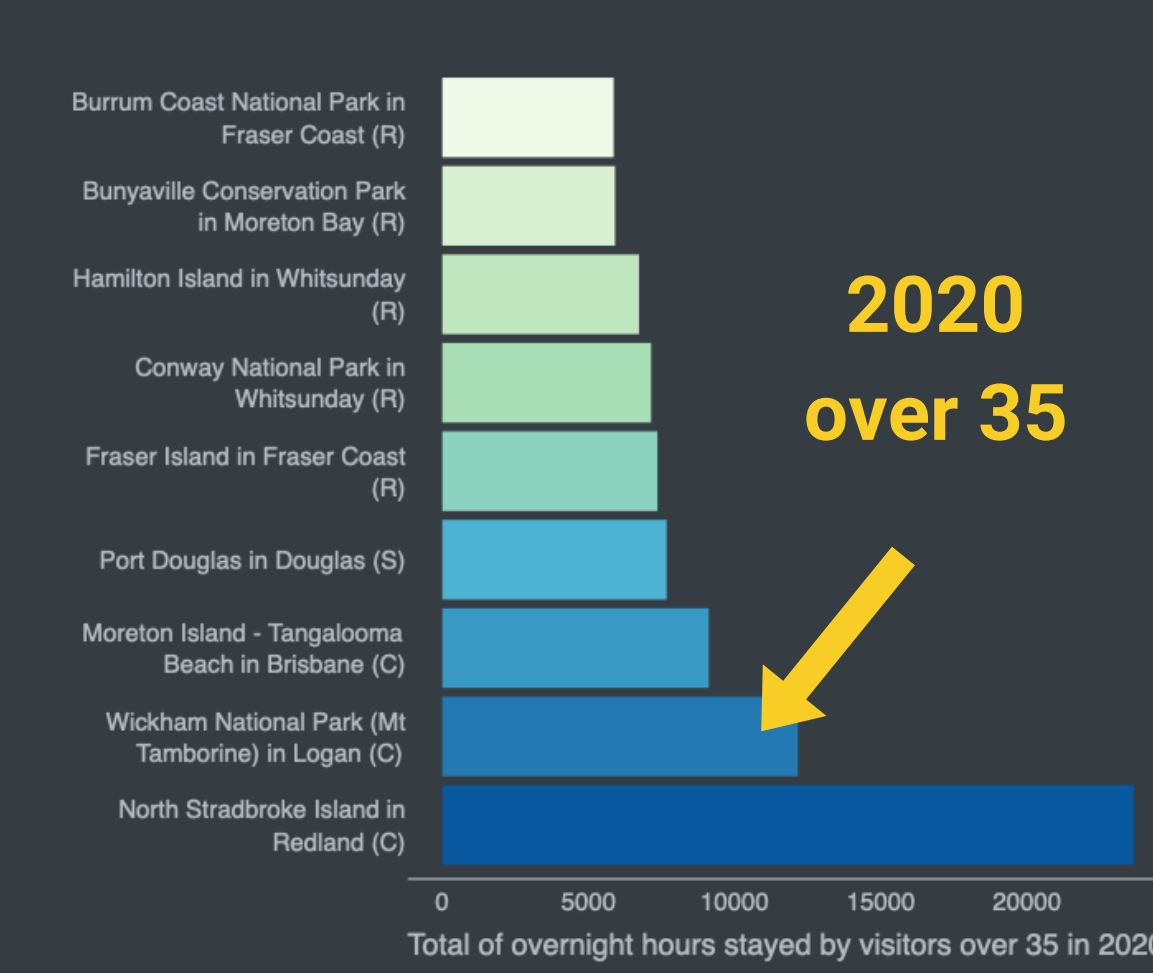
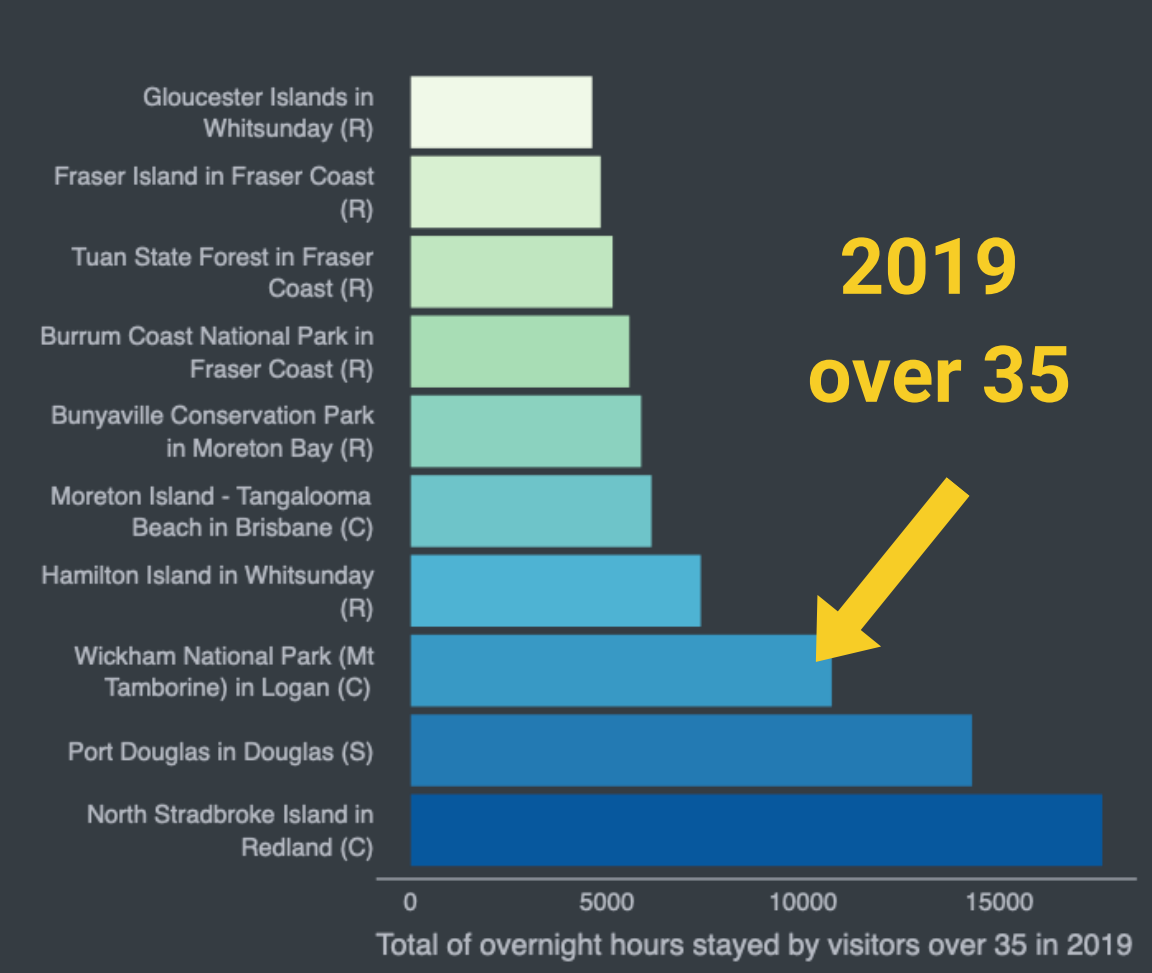
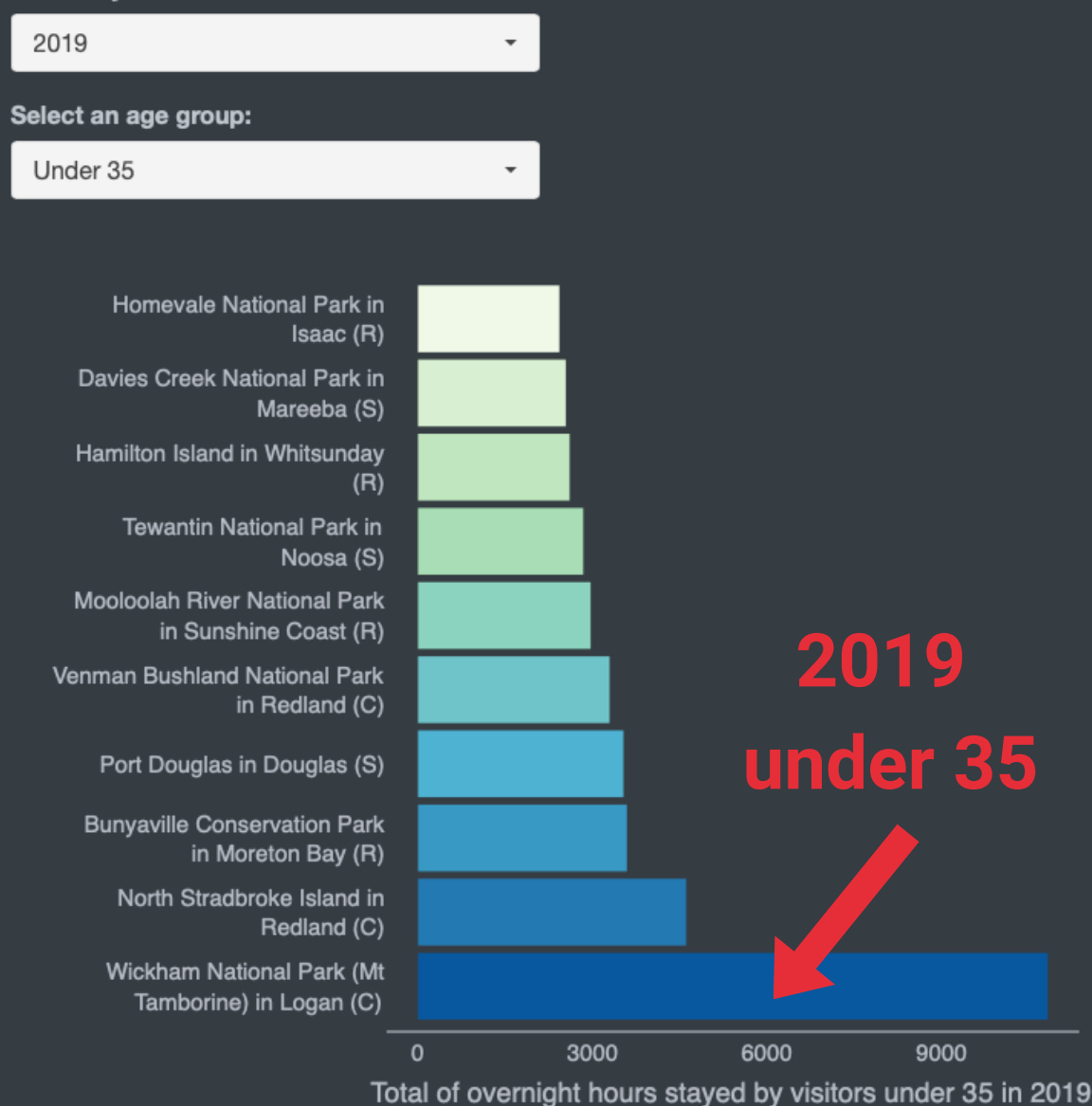




# A BRIEF TOUR OF THE ECOTOURISM DASHBOARD'S FUNCTIONALITY

01	<b>MONTHLY VISITORS</b>	<ul style="list-style-type: none"> <li>monthly visitor counts per ecotourism destination with the ability to filter by 51 local government areas - identify trends and outliers</li> </ul>
02	<b>MID-WEEK &amp; WEEKEND VISITOR TRENDS</b>	<ul style="list-style-type: none"> <li>greatest and least variations between weekday and weekend median visitor totals</li> <li>there is also the ability to compare the weekend and weekday times-series of each destination based on the greatest and least variation of visitors.</li> </ul>
03	<b>TOP VISITOR HOME LOCATIONS</b>	<ul style="list-style-type: none"> <li>top 10 home SA4 locations of visitors by the number of visitors per year.</li> </ul>
04	<b>VISITOR OVERNIGHT STAYS</b>	<ul style="list-style-type: none"> <li>top ecotourism destinations by the collective number of hours stayed overnight</li> <li>ability to select any combination of year and age group and view their preferred top 10 ecotourism destinations based on the total number of hours stayed overnight.</li> </ul>
05	<b>VISITOR DEMOGRAPHICS</b>	<ul style="list-style-type: none"> <li>age groups above and below age 35</li> </ul>
06	<b>DISTANCE TRAVELLED</b>	<ul style="list-style-type: none"> <li>average trip distance per SA1 by visitor origin location</li> <li>represented as a time-series graph covering the period 2019 – 2021</li> <li>filter ecotourism destinations by the LGA within which they are contained</li> </ul>
07	<b>UNIQUE TRIPS</b>	<p>Heat maps showing the number of unique visitors with the ability to filter based on:</p> <ul style="list-style-type: none"> <li>SA1</li> <li>period of the week (Weekday and Weekend)</li> <li>month and year -YOY comparisons</li> </ul>





# FINDINGS OVERNIGHT STAYS: WICKHAM NATIONAL PARK



Support Government consideration of tourism development proposals in or around ecotourism locations:

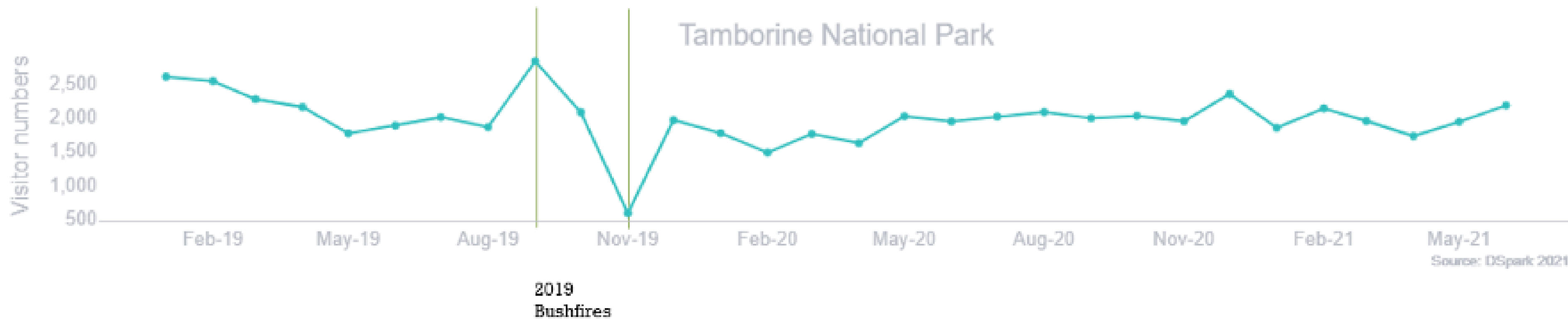
- understanding ecotourism demand and travel behaviour for the area
- understand need for infrastructure, facilities, marketing and targeted support
- unexpected outlier Wickham National Park



# FINDINGS DISASTER RESPONSE: MOUNT TAMBORINE

## Changes in behaviour during and after a natural disaster - fire 2019

- Tamborine Mountain was spared the brunt of impact, but sharp decline in visitor numbers to Tamborine National Park in November during the fire period
- numbers quickly rebounded and returned to normal the following month, indicating some compliance around evacuation orders

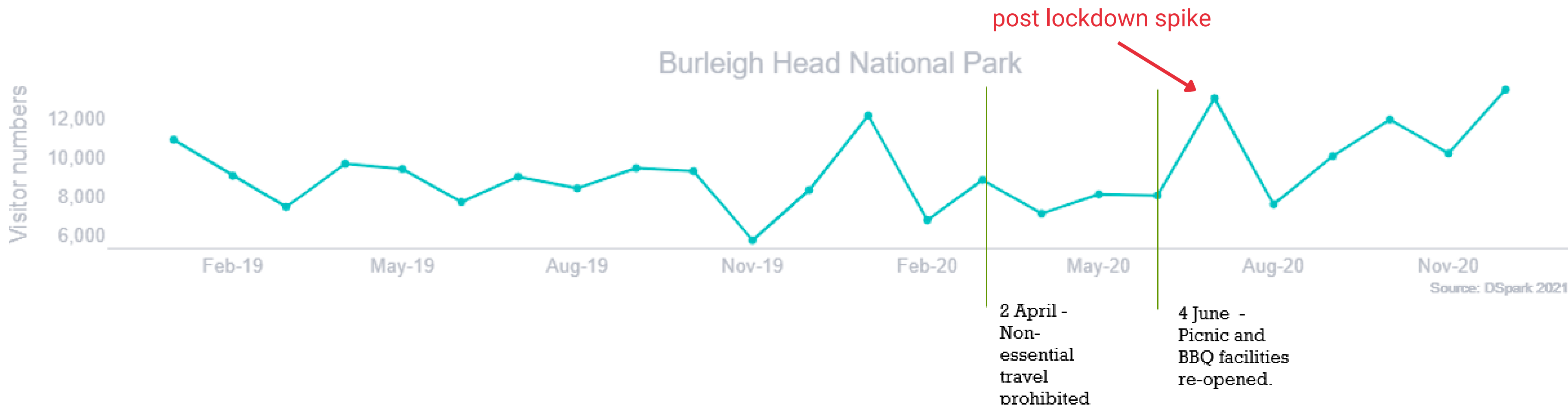




# FINDINGS LOCKDOWNS: BURLEIGH HEADS NATIONAL PARK

Changes in behaviour during and after lockdown order is given: although visitors continued to go to the park, numbers declined when lockdown orders were given:

- in 2019 visitor numbers increased over Easter holidays (March to April), the corresponding period in 2020 shows a noticeable decline in visitor numbers
  - Easter holidays were a week later in 2020, however this would not account for the decrease which is most likely due to the April lockdown orders
- although visitor numbers are still above 6,000 during the lockdowns, it illustrates that there was a level of compliance

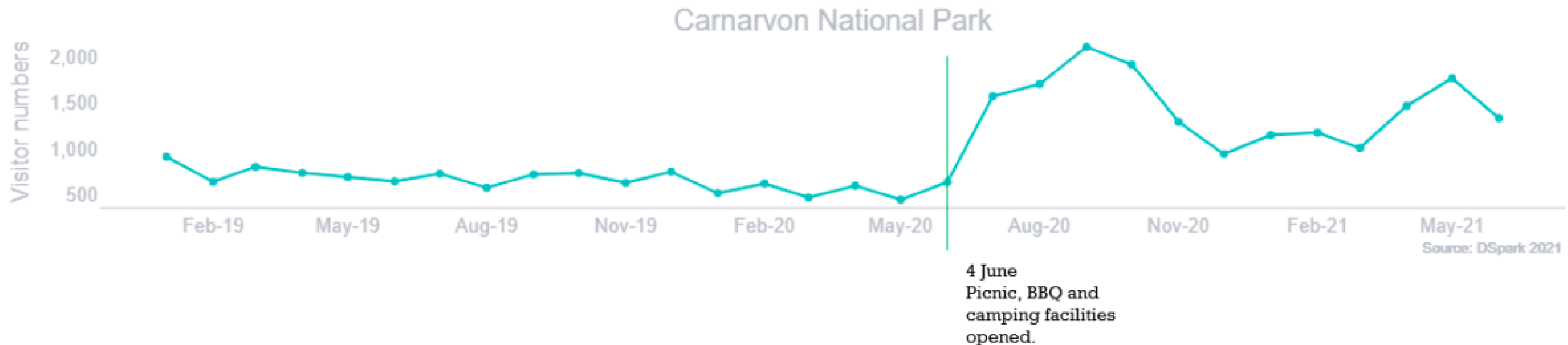




# REGIONAL & REMOTE TOURISM DURING COVID: CENTRAL HIGHLANDS

Determine whether the changes in travel behaviour are now returning to pre-COVID behaviours and travel patterns?

- Carnarvon Gorge is one of the most well-known national parks in Australia, Central Highlands LGA with Backdown Tableland and Minerva National Park - relative proximity to Brisbane
  - steep rise in popularity began directly after camping and facilities reopened in Queensland
  - showed a consistent and sustained increase in visitor numbers compared to the period before COVID.





# RECOMMENDATIONS & IMPLICATIONS

The pilot demonstrated that DSpark mobility intelligence could help DTIS to:

1. support Government consideration of tourism development proposals in or around ecotourism locations
2. inform future ecotourism infrastructure development needs - TEQ dashboard example
3. identify high visitation areas with opportunities for ecotourism development adjacent to national parks
4. improve target marketing and promotion to nature-based travellers in ecotourism locations
5. highlight any significant changes in travel behaviour to ecotourism locations due to COVID-19 and severe natural disasters
6. determine whether changes in travel behaviour normalises after significant disruptions



# LOOKING FORWARD





# STAY IN TOUCH!



RIDL



@G\_RIDL



ridl@griffith.edu.au



ridl.com.au

