BNH CRC Flood Risk Communication

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End users

- NSW SES (Lead)
  - Josh McLaren, Coordinator Community Capability – Southern, Western and South Eastern Zone
- AFAC SES Community Safety Group
- Partnership and communication has continued with the NSW SES, VIC SES, SA SES, DFES, NTES, QFES, TAS SES and ACT SES through their participation in research activities and development.
### Understanding behaviour in and around floodwater

- Questionnaire Research: Public and SES
- Mental Models Research
- Experimental Decision-making research (cue utilisation)

### Evaluating flood risk communication

- Collating and analysing existing communication materials
- Evaluating these materials with stakeholders to produce guidelines
Public Survey: Encountering Floodwater

- **Aims:**
  - To understand how the public view risk, as it relates to water on the road and recreating in floodwater;
  - To understand the circumstances in which the public enter ‘floodwater’ on the road;
  - To understand the circumstances in which the public enter ‘floodwater’ for recreation

- **Sample:**
  - n=2200
  - Nationally representative by age, gender and state
Public Survey: Encountering Floodwater

Reasons for wading in floodwater on land:

- Leisure: 34%
- Testing the depth of water before driving through: 17%
- Travelling to shops: 4%
- Travelling to work/school: 6%
- Evacuating: 5%
- Rescue belongings: 6%
- Rescue pet or livestock: 8%
- Rescue a person: 3%
- Returning to home or business: 11%

Did you succeed in driving through floodwater on this occasion? (n=1172)

- Yes, without any issues: 90.4%
- Yes, the car was driven out without help - but it was damaged and needed repairs afterwards: 4.2%
- No, I/we had to be helped/rescued by others - passers by or family/friends: 2.6%
- No, I/we had to be helped/rescued by motor services/paid help - NRMA, tow truck, garage: 0.9%
- No, I/we had to be helped/rescued by emergency services - SES, Fire, Police: 0.7%
Topic areas of findings

• Public experiences of entering floodwater on roads
• Public behaviour around, and experiences of, entering floodwater (on foot and recreating)
• Public recall of flood risk messages

Next steps

• Detailed statistical analysis to:
  • Identify at-risk cohorts for entering floodwater (driving/recreating)
  • Understand why people enter floodwater, the circumstances under which people enter floodwater, and the consequences of it
  • Evaluate knowledge of flood risk messages and reported behaviour

Potential applications and uses

• Inform flood risk messaging development and dissemination
• Inform community engagement and community education
• Potential use of ‘water on road’ images for community engagement tool
SES Encountering Floodwater Survey

• Aims
  • To understand the characteristics of those who drive/don’t drive through floodwater in SES vehicles.
  • To understand the circumstances in which SES personnel enter floodwater on the road when in SES vehicles.
  • To determine factors that relate to higher risk driving into floodwater on roads.

• Currently:
  • Survey has been completed by four jurisdictions
  • Advanced statistical analysis currently being completed
SES experiences of driving through floodwater

- **Vehicle type**
  - Medium/Heavy truck, 12
  - Light truck/Dual cab, 57
  - Passenger vehicle, 18
  - Other, 13

- **Drive type**
  - 4WD, 77
  - 2WD, 13
  - Unsure, 5
  - AWD, 5

- **Water flow**
  - Still, 44
  - Slow, 47
  - Med/Moderate, 9
  - Rapid/swift, 1

- **Location**
  - Urban, 17
  - Rural, 39
  - Suburban, 22
  - Regional, 17
  - Remote, 6

- **Lighting/time of day**
  - Daylight, 60
  - Dawn/dusk, 12
  - Night/no lights, 16
  - Night/lights, 11

- **Weather**
  - Clear, 41
  - Light rain, 33
  - Steady rain, 20
  - Heavy rain, 3
Topic areas of findings

• SES members’ behaviour around, and experiences of, water on roads in SES vehicles
• Organisational safety climate

Next steps

• Detailed statistical analysis to:
  • Identify at-risk cohorts for entering floodwater in SES vehicles
  • Better understand the situations in which SES member enter floodwater, and the factors influencing their decisions
  • Explore relationships between training and entering floodwater

Potential applications and uses

• Inform the development of policies, training and protocols within SES organisations
• Inform training activities and discussion of floodwater and risk
• Inform internal communications and data use for benchmarking
EXPERTise: Flood Risk Perception

• Assessing expertise in skilled situation assessment
• Identification of higher and lower cue utilisers

• Participant groups:
  • SES members
  • Inexperienced drivers
Topic areas of findings

• Relationship between cue utilisation and risk assessment
• Characteristics of higher and lower cue utilisers

Next steps

• Complete data analysis of inexperienced driver sample
• Detailed analysis of SES and inexperienced driver samples to understand influence of training and other factors on cue utilisation

Potential applications and uses

• Inform training activities
• Objective measurement of cue utilisation, skilled risk assessment, and (potentially) organisational ‘norms’
Thank you!
Any questions?

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