HIGHT: STRATEGY & RISK

NZSAR
New Zealand Search and Rescue

Reducing SAR responses:

A framework to achieve safer recreation in New Zealand

June 2016

Report commissioned by New Zealand Search and Rescue (NZSAR).

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Executive Summary

Outdoor recreation is part of our DNA. Both New Zealanders and overseas visitors enjoy great experiences having fun and adventures on and in our waters, land and air space. Outdoor recreation is part of New Zealand's global brand. In addition to our international attractiveness, kiwis hold dearly the 'right to recreate' in our varied natural environments.

Introduction and context

In most cases, recreational experiences result in pleasant memories, picturesque photographs, repeat visits and plans for even more trips, however, a large number of recreational experiences end in a search and rescue operation. Unintentionally, people find themselves in life or death situations requiring the expertise of New Zealand's search and rescue response capability.

New Zealand Search and Rescue's (NZSAR) database shows an average of 1119 Category I or Category II recreational search and rescue incidents occurred annually between 2010 – 2015. In reality, many thousands more recreational safety incidents happen each year. These incidents are recorded across NZSAR's partner agency and other databases, such as: Accident Compensation Corporation, Surf Life Saving New Zealand, District Health Boards, the New Zealand Mountain Safety Council and Coastguard New Zealand – to name a few.

In 2015 the NZSAR council commissioned a governance review. The review noted that, *"too much emphasis on response may overlook opportunities for complementary activities that promote awareness of the risks and the value of personal preparedness."*

This framework project has been commissioned to explore a key recommendation from the 2015 governance review:

" That the SAR Council coordinate the development of a joint preventative strategy that will place greater emphasis on preparedness and reduce the demand for SAR services in the future."

In response to this recommendation, Hight Strategy & Risk have engaged several key and committed SAR stakeholders on behalf of NZSAR to explore such questions as:

- *Is there an appetite among NZSAR stakeholders and partners for a joint preventative strategy?*
- *Who are the stakeholders who could play a positive role in a joint preventative strategy?*
- *What are the root causes of recreational SAR incidents?*
- *Who is the target market for any joint preventative strategy?*
- *What role could or should NZSAR secretariat play in recreational SAR incident prevention?*

In examining these questions with NZSAR stakeholders, there appears to be a strong level of consensus that a cause and effect based framework, underpinned by an ongoing and strengthened evidence base, led by the NZSAR secretariat, is a positive and constructive approach, capable of unlocking a more collaborative, efficient and effective recreational safety

sector. A simple, pragmatic, nationally led framework that all stakeholders motivated to support recreational safety can use to support decision making, prioritisation and inter-agency coordination has been developed which is complimentary to existing environment specific strategies, such as the "Water Safety Sector Strategy 2020 ". A robust evidence base is now needed to populate the framework and support the operationalisation of what the framework represents. The size of the prize is valuable for all stakeholders and more broadly 'NZ Inc': Safer Recreation, Reduced SAR.

The proposed Recreational Safety Framework (RSF)

The proposed recreational safety framework has been developed to provide a pathway and methodology to:

A. Define the context of recreational activities: Activities, undertaken on land, in water, on water and in the air, that are not provided by a commercial entity (such as an adventure tourism provider or recreational facility serving school groups) or those recreational activities governed by a sport and recreation organisation (such as organised sport or adventure races). Recreational activities such as walking in the bush, swimming on lakes and beaches, mountain biking on trails, trailer boat or trout fishing are the focus of this framework.

B. Break down recreational safety incidents into key cause factors which can then be used to underpin data collection, intelligence gathering and evidence based decision making: Using a framework adapted from the International Life Saving Federation *World Drowning Prevention Plan* five key causal factors were identified that could lead to a recreational SAR incident:

    1. Ignorance, disregard or misunderstanding of recreational activity hazards
    2. Lack of information and awareness about the activity, environment and safety implications.
    3. Inability to cope once in an uncertain situation or when exposed to recreational hazards.
    4. Lack of effective monitoring, supervision or surveillance.
    5. Inappropriate equipment or equipment failure.

C. Map key control measure categories that, when underpinned by the evidence base and risk assessment, will assist NZSAR secretariat, SAR agencies and other parties to focus their efforts, resources, collaborative activity and priorities on the most important solutions that will unlock safer recreation.

    The key control categories we propose include:

    1. Provide warnings regarding hazards & deny access to hazards (subject to risk assessment)
    2. Educate & inform recreational participants, and the people that influence those participants, to recognize their own recreation capabilities, understand the threats to their safety posed by the activities undertaken and use this information to make effective personal safety decisions.

3. Increase coping / self-help capability so that participants can recognize uncertain situations and act early to mitigate the consequence of the situation they find themselves in.
4. Strengthen recreational participation intelligence of all stakeholders including land and water management authorities, SAR agencies and the participants to recognize emerging threats, such as changes in weather conditions or natural hazards relative to exposure rates (number of participants) and act early to mitigate the consequence of the threat posed.
5. Provide guidance and strengthen regulation where appropriate to ensure participants understand what equipment is or is not appropriate or compliant for the activities being undertaken.

D. Provide greater clarity on the national objective. Through the application of evidence, control measures will be executed where they are needed most, thereby managing the macro risk profile for recreational safety. In other words, an increase recreational safety will result in a reduced reliance on SAR response services.

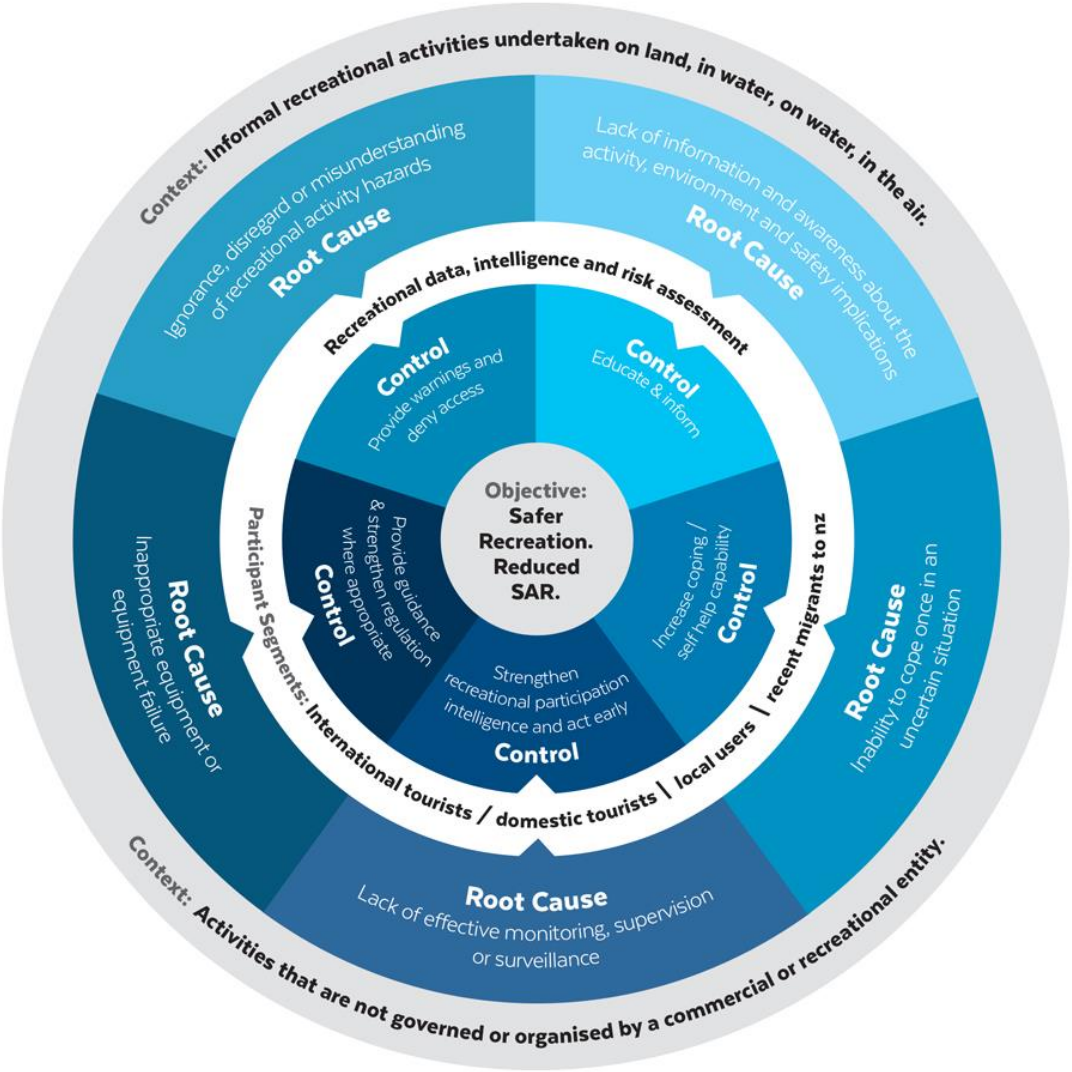


Figure 1: Proposed recreational safety framework

Summary of recommendations

To achieve the desired objectives outlined in the proposed recreational safety framework, a three-pronged game plan is required, supported by appropriate resourcing.

A. In order to fill the governance, thought leadership and coordination gap that exists, the NZSAR secretariat should assume a "cross environment" coordination, alignment and advocacy role for the recreational safety (prevention) sector.

1. That NZSAR council redefine its strategic goals with regard to recreational safety from "reduce the need for SAR services" to "to reduce the risk of SAR incidents, or in the event of a SAR incident, to reduce the negative consequences of such incidents" (or similar). This statement has a stronger alignment to accepted risk management standards internationally such as ISO31000:2009 Risk Management Principles & Guidelines.
2. That NZSAR council, secretariat and consultative committee adopt the proposed Recreational Safety Framework (RSF) as the underpinning thought model that will drive its approach to systematically strengthening the recreational safety (prevention) sector
3. That NZSAR secretariat provide thought leadership on behalf of the sector, to government and non-government organisations that provide resources, in order to generate additional sector resources to fill identified gaps.

B. To focus effort, prioritise resources and respond to an evolving recreational risk profile, build the evidence base and translate it into sector workflows, NZSAR secretariat should:

4. Take a thought leadership role on behalf of the sector regarding more effective and coordinated collection, supply and synthesis of data (both participation (exposure) and incident data) on an ongoing basis.
5. Establish agreements with organisations that currently collect relevant data to inform a national risk profile of recreational safety exposure and incidents.
6. Provide an ongoing information, intelligence and risk assessment service to the sector to ensure the recreational safety framework is underpinned by a strong evidence base.
7. Subject to the proposed risk assessment process, seek resources and take steps to fill identified recreational safety gaps. As an example, the initial sector mapping against the proposed framework indicates a gap may exist in servicing the international tourist participant segment.
8. Consider publishing an annual 'recreational safety report' to capture and report on sector performance, highlight key risk areas which require focus, showcase best practices and generate public and media awareness of recreational safety issues.
9. Where there is an opportunity to source and distribute funds to NZSAR partners (for prevention initiatives), ensure the criteria used to determine resource allocation is aligned to the proposed recreational safety framework including the evidence base generated by the risk assessment process.

C. To build sector capability and connectivity to realise outcomes, NZSAR secretariat should:

10. Coordinate and convene recreational safety forums to focus sector thinking and foster stronger collaboration on recreational safety across environments. It is recommended forums should have structure and function relative to the proposed framework and work collaboratively to maintain and evolve the framework and its enabling components.
11. Support and enable activities that strengthen people capability across NZSAR's partners in critical areas (such as risk management, public messaging and behavioural change) in order to grow the capability and capacity of the recreational safety sector in the areas that will enable it to be more effective and cohesive. This may include a mix of professional training and sharing of industry best practice (domestically and internationally).
12. Invest in a re-development of 'Adventure Smart' to ensure it is optimised to meet the needs of, and reflects the behaviours of, modern recreational participants across all participation segments. Initial concepts raised for consideration include development of a smartphone application with linkage to local hazard and safety messaging via geo-tracking functionality. Consider opportunities for joint venture with mainstream tourism industry organisations (i.e. Trip Advisor App and/or similar).

Introduction & Context

A traditional role in coordinating New Zealand's search and rescue capability

NZSAR formed in 2003 after a NZ Government Cabinet decision to establish the NZSAR Council, the NZSAR Secretariat (based in the Ministry of Transport), and the NZSAR Consultative Committee. These arrangements were introduced to provide stronger strategic coordination and governance of all SAR modes – those being land, sea and air.

Further, the NZSAR model of Council, Secretariat and Consultative Committee was intended to provide strategic policy advice to the Government and strong strategic coordination of all operational aspects of SAR. The NZSAR Council was to provide the vision, mission and goals for the entire organisation and these were outlined in a SAR national plan.

Outdoor recreation is part of our DNA

Both New Zealanders and overseas visitors enjoy great experiences having fun and adventures on and in our waters, land and air space. Outdoor recreation is part of New Zealand's global brand. In addition to the international attraction of Nez Zealand, Kiwis hold dearly the 'right to recreate' in our varied natural environments.

In most cases, recreational experiences result in pleasant memories, picturesque photographs, repeat visits and plans for even more trips, however, a large number of recreational experiences end in a search and rescue operation. Unintentionally, people find themselves in life or death situations requiring the expertise of New Zealand's search and rescue response capability.

Limited data suggests a significant number of recreational SAR incidents but there are limitations in existing data

New Zealand Search and Rescue's (NZSAR) database shows an average of 1119 Category I or Category II recreational search and rescue incidents occurred annually between 2010 – 2015. In reality, many thousands more recreational safety incidents happen each year. These additional incidents are recorded across NZSAR's partner agency and other databases, such as: Accident Compensation Corporation, Surf Life Saving New Zealand, District Health Boards, the New Zealand Mountain Safety Council and Coastguard New Zealand – to name a few. A key challenge for the sector is that is it currently unable to accurately define the magnitude of recreational activity participation or related incidents and translate data into intelligence, across all environments, to further enhance the control measures in place to increase safety.

There are examples of good practice in the sector, such as NZ Mountain Safety Councils "There and Back" (draft) publication which provides extensive exposure and incident intelligence from a range of databases including ACC to support an evidence based approach for that organisation and its stakeholders to focus efforts where they are needed most. Extending this approach across all recreational environments would be of significant value for the recreational safety sector in New Zealand.

Formal review suggests a development of NZSAR secretariat's scope should be considered

A 2015 governance review investigated how NZSAR Council was progressing with its strategic objectives. The review noted that, *"Too much emphasis on response may overlook opportunities for complementary activities that promote awareness of the risks and the value of personal preparedness."*

The NZSAR Council has a goal to reduce demand for SAR services across the whole country.

"We seek an informed and responsible public. We will collaborate, inform, contribute to, and when required, coordinate or lead public-focused preventative strategies and actions for individuals, groups and organisations. We want to ensure the New Zealand public and guests to our country are appropriately informed and assist them to take personal responsibility for their activities in order to reduce the need for search and rescue services" (NZ Search & Rescue 2015 Governance Review).

The 2015 NZSAR governance review therefore recommended:

"*That the SAR Council co-ordinate the development of a joint preventative strategy that will place greater emphasis on preparedness and reduce the demand for SAR services in the future".*

Prevention is not foreign to NZSAR

NZSAR has been involved in prevention-focused operations previously, such as the development of the website, Adventure Smart, which has outdoor safety codes and information targeted to domestic and international tourists. The recommendation outlined above through NZSAR's 2015 governance review presents an opportunity to evolve NZSAR's scope and, over time, empower the organisation towards playing a significantly wider and more over-arching leadership role in recreational activity incident prevention in New Zealand.

Defining the context of 'recreational activities' for this project

It is important to note that the focus of this project does not include forms of recreation that are already subject to existing regulations and governance such as adventure tourism, commercial operators or sporting organisations. There is no simplistic method to define activities that are in scope for this project however they generally meet the following criteria:

- Are not governed by rules by an association (or similar)
- Are not organised by an incorporated sporting or recreation organisation where there is a governing body
- Are not commercial in nature (such as bungy jumping or jet boating)

Examples of recreational activities for the purposes of reinforcing the context of this project include:

- Surfing, kit surfing, body boarding, stand up paddle boarding (or similar)
- Swimming at a beach, lake or river
- A group of friends organising a bush walk
- A group of friends that go on a kayak trip
- Individuals or groups of friends going hunting or diving
- An individual that goes running in a forestry area
- Camping trips into forestry areas (i.e. not camping grounds)
- Gliding or base jumping (where not commercially provided)
- Operating drones for recreational purposes

In terms of environments where recreation participation occurs, this project includes the types of activities outlined above which may occur on land, in the water, on the water or in the air.

Methodology

Overview

The project methodology was executed between February and June 2016.

This project was completed using a pragmatic hypothesis based approach underpinned by qualitative stakeholder engagement including:

1. Sector research conducted online
2. Review of previous relevant research and development work commissioned by NZSAR secretariat
3. Development of a problem statement to underpin the investigation
4. Development and use of issues trees to understand the component issues of the problem statement
5. Stakeholder identification for engagement phase
6. Stakeholder interview process to explore the issues
7. Development of the proposed recreational framework and related findings.
8. Feedback from NZSAR stakeholder group
9. Finalisation of proposed Recreational Safety Framework
10. Opportunity for feedback on the draft Recreational Safety Framework
11. Final report developed and presented to NZSAR secretariat.

Sector research conducted online

The project requirements were to address the recommendation *"That the SAR Council co-ordinate the development of a joint preventative strategy that will place greater emphasis on preparedness and reduce the demand for SAR services in the future".*

Given the broad range of recreational incident prevention initiatives in already in place, the first phase of the project was to review a range of (generally) national organisations to understand how they saw their role in SAR prevention at a strategic level and what sorts of initiatives they were delivering.

A list of organisational strategy documents that were reviewed are included as Appendix A.

A noticeable observation during the online review process was that while many organisations are striving to increase recreational safety and prevent incidents from occurring, there is no apparent consistency or alignment across organisations in terms of how they undertake risk assessment and as a result, prioritise initiatives. This is not to say those initiatives are not needed, or in any way ineffective. However, when considering the broader question of recreational safety in a NZ wide, all environments context, it is difficult to see how evidence based prioritisation could be achieved and thus presents a gap for the sector.

Review of previous research commissioned by NZSAR

NZSAR secretariat provided research which had been commissioned and completed in 2015 by Bevan Wait of Distill Research Agency (Auckland) to understand the level of public knowledge of

SAR prevention measures and attitudes for recreational boating, water safety and outdoor activities.

The Distill Research Agency report noted that based on the responses to their market survey (n=413) that "*all New Zealanders did some form of active recreational activity in the last 12 months. The most popular active recreational activities for New Zealanders are swimming at a beach (69 percent), walk hike or tramp longer than 3 hours (43 percent) and boating (32 percent). For international tourists the most popular active recreational activities are boating (76 percent), walk, hike or tramp longer than 3 hours (47 percent) and canoe, kayak, dinghy trip (41 percent)*"[1].

While not statistically significant evidence, this does provide a reasonable level of insight into the extent of recreational activity participation rates and the environments activities are conducted in, and therefore some degree of risk exposure to recreational activity hazards. It also provides value in understanding the variation between the recreational activities New Zealanders participate in vs those of international tourists. And further, while there are similarities in some activities undertaken, the attitudes and perception of safety was contrasting. As an example, the variations between the two groups for outdoor safety are highlighted below:

New Zealanders

- Only 45 percent of New Zealanders bring enough food for emergencies with them on an outdoor trip. And only 56 percent of New Zealanders bring a warm hat with them on outdoor trips.
- Only 15 percent of New Zealanders that had participated in outdoor adventure activities in the last 12 months had seen the outdoor safety
- code before.
- Over two thirds (68 percent) of New Zealanders believe the amount of publicity and advertising about outdoor safety should be increased.

International Tourists

- Less than half (45 percent) of international tourists strongly disagreed with the statement 'If the weather is fine before going on an outdoor trip, there is no need to check the local weather forecast'
- While a majority (74 percent) of New Zealanders strongly agree you should plan for and expect weather changes in New Zealand, slightly less than half (48 percent) of international tourists gave the same response.
- International tourists were less likely than New Zealander's to bring clothing for all possible weather, enough food for the trip and sunscreen on outdoor trips.
- A quarter of international tourists that did an outdoor trip while in New Zealand had seen the outdoor safety code while here.

These variations between recreational participant segments should rightly, as noted in the Distill Research Agency report, result in variations in how control measures are targeted to meet the needs and typical journey of these segments. While the general focus of this work was

[1] Source: Report - Public knowledge of SAR prevention measures and attitudes for recreational boating, water safety and outdoor activities. Distill Research Agency Report (2015).

related to public messaging and provision of key safety messages (one 'stream' of control measures), it seems reasonable to extrapolate this logic across other streams of control measures such as managing and denying access to hazards (at certain risk thresholds), developing self-coping skills among participants, how recreational equipment is obtained including the any training to use such equipment safely.

The other relevant piece of research which was considered was entitled "Outdoor Recreation Participation and Incidents in NZ" and produced by Annie Dignan & Gordon Cessford (2009). This extensive piece of work looked closely at what evidence was available in regards to participation and incident data and how that data may translate into intelligence that can be applied to increase the impact of SAR stakeholders. The report noted the following recommendations to improve the collection and use of outdoor recreation participation and incident data:

- *"Data Consistency – standardisation of any classifications or categories used for data recording, storage and reporting. This would include classifications of activity type, incident type and other descriptive variables*
- *Data standards – ensure data is collected from the field, that it is collected accurately and consistently, and that it is entered into suitable databases*
- *Cross-sector collaboration – identify partner groups and develop statements of shared goals, interests and needs*
- *Joint projects – combine resources and resource seeking capacity by running more joint initiatives and research projects*
- *National Incident Database – investigate how this could be used to start collecting incident and participation data across the whole sector. This also allows incident severity measures to be included, which can significantly increase database value for targeted study*
- *User counts in the field – assist land managers set up, operate and apply visitor counting systems with trials and case studies*
- *Support research – look for ways to create beneficial research opportunities and collaborations, especially based on shared cross-sector needs."*

This became an area raised by many stakeholders engaged throughout this current project as still a great opportunity for the SAR recreational safety sector to become more evidence based with stronger alignment in collection, analysis and use of data. This is further explored later in this report.

Developing the problem statement

When using a hypothesis based approach, it is important to consider the problem that is trying to be solved to ensure the resulting investigation and questions asked of stakeholders to be engaged through the project are relevant.

In consultation with NZSAR secretariat the parameters for this project were developed and confirmed as *"How can NZSAR develop a whole of sector evidence based and measured framework to strengthen sector cohesion, support decision making and improved prioritisation of resources that result in a reduced need for SAR services in New Zealand?"*.

The problem statement was provided with additional context to ensure the focus of the project and resulting findings would be as relevant as possible for NZSAR:

- "NZ Inc" collective approach – how the recreational safety sector work cohesively to reduce the need for SAR services
- Strong engagement across broad range of stakeholders
- High level framework – clear objectives, value proposition for each stakeholder, operating framework, mapping of key relationships, development plan
- Clarity of prevention role for agencies in recreational safety space going forward leading to opportunities for all agencies in recreational safety space to cooperate and collaborate (including gap and opportunity assessment)
- Provide practical input into future prevention focussed investment models across funding agencies (government, lotteries, charity gaming, philanthropic sources etc)
- Provide a platform for future sector wide *"recreational safety communication strategy"*

Development and application of an issues tree was used to generate the initial hypothesis solution which was later tested with stakeholders through interviews.

In order to break down the contingent issues involved with achieving the objective of "*a reduced need for SAR services in New Zealand*" an issues tree methodology was used (Figure 2). This is based on a logic model of cause and effect:

- The end result is a SAR incident – a loss event; so
- What are the possible root causes of that event?; because
- If we know the root cause, we can prescribe a relevant control measure(s); and
- Controls need to be provided relative to different recreational participation segments as reinforced by Distill Research (2015).

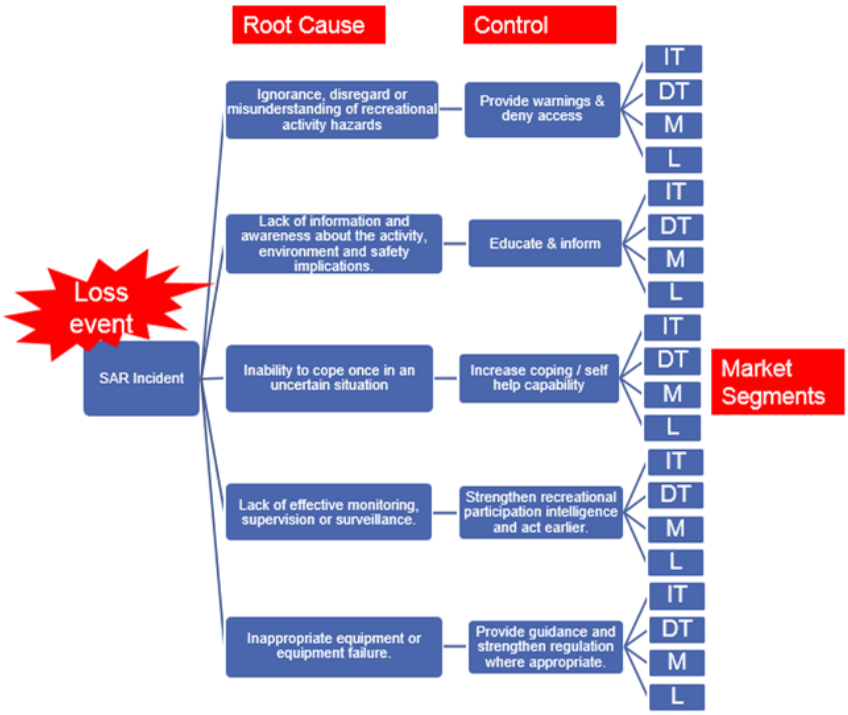


Figure 2. Initial issues tree unpacking cause and effect of recreational SAR incidents. (IT denotes 'International Tourist, DT denotes Domestic Tourist, M denotes Recent Migrant and L denotes Local user).

The individual cause factors were considered and subsequently adapted from the International Life Saving Federation's (ILSF) "A framework to reduce drowning deaths in the aquatic environment for nations/regions engaged in lifesaving (2015)". This is the international community's strategic framework to underpin the global effort to reduce drowning and is applied in many developed countries including New Zealand, Australia and the United Kingdom (Figure 3). This framework was seen as relevant because:

- It has enjoyed longevity being first adopted by ILSF in 2008 and is well accepted internationally
- Provides direction of ILSF member nations to align their efforts in solving the problem (in a similar method to what NZSAR secretariat is seeking to do for its stakeholders)
- Allows individual member nations to apply the framework in their own unique context (as NZSAR stakeholders expressed they required when engaged during this project)
- It is pragmatic and easy to understand, despite being a complex problem (i.e. addressing the global drowning toll)

When tested in the broader recreational safety context, adaptations were made to the ILSF model to reflect the range of recreational activities being undertaken in varying environments in this investigation.

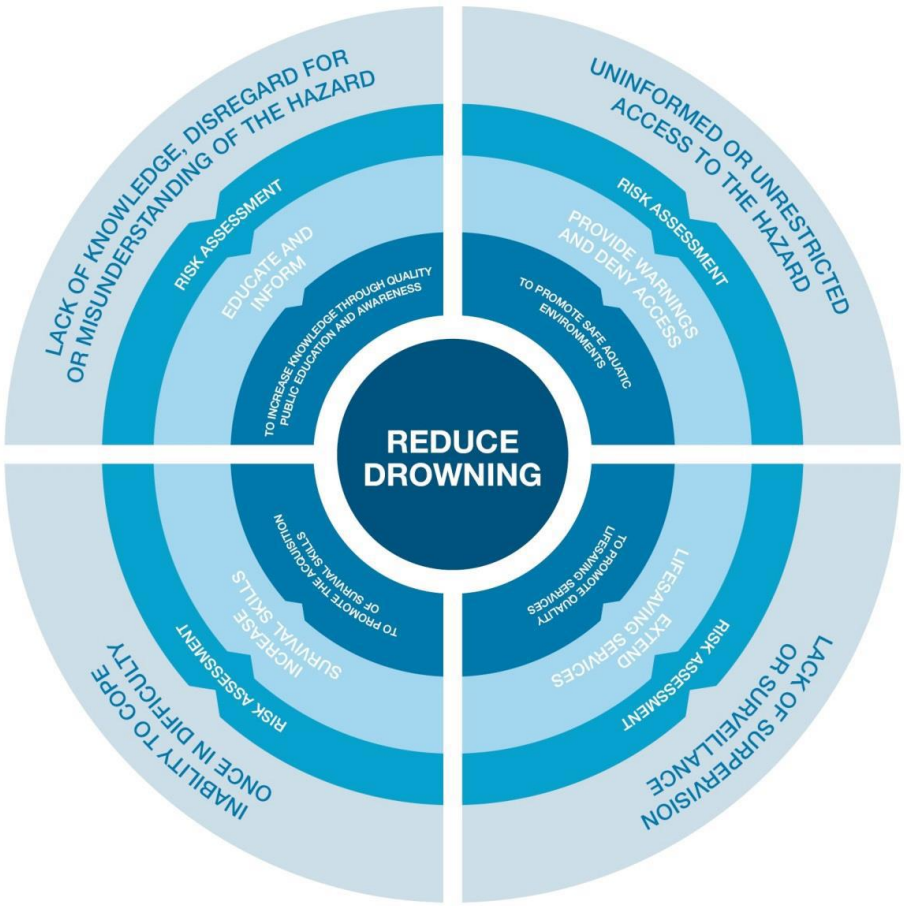


Figure 3: International Life Saving Federation Drowning Prevention Framework (2015) [2]

[2] Source: A framework to reduce drowning deaths in the aquatic environment for nations/regions engaged in lifesaving. International Life Saving Federation (ILSF) (2015). Available www.ilsf.org .

Stakeholder identification to discuss the hypothesis solution

In conjunction with NZSAR, relevant stakeholders were identified to consider the proposed problem statement and contingent issues.

Identified stakeholders included:

- Sport New Zealand
- Accident Compensation Corporation
- Department of Conservation
- Department of Internal Affairs (Outdoor Safety Committee)
- Civil Aviation Authority
- Local Government New Zealand
- Land Search and Rescue New Zealand
- Rescue Coordination Centre of New Zealand
- Maritime New Zealand
- NZ Search and Rescue Secretariat
- Coastguard New Zealand
- Surf Life Saving New Zealand
- Water Safety New Zealand
- Swimming New Zealand
- Foundation North (formerly ASB Trust)
- Auckland Regional Amenities Funding Board
- New Zealand Community Trust
- Waikato Regional Council
- Horizons Regional Council
- New Zealand Meteorological Service
- New Zealand Tourism Industry Association
- New Zealand Police

It is not proposed that this is an exhaustive list of all stakeholders who have an interest in recreational safety in New Zealand. The aim of this stakeholder list was to ensure all general 'groups' of stakeholders (such as government organisation, non-government SAR organisations, local government organisation, funding organisations including community, gaming and regulatory sources) were engaged in line with the scope of the project to ensure the findings were well considered in respect of the various stakeholder groups.

Stakeholder interview process to explore the issues

Identified stakeholders were invited to participate in a one of one interview. Interviews presented the proposed recreational safety framework and sought feedback on the following questions:

- Is there an appetite among NZSAR stakeholders and partners for a joint preventative strategy?
- Does the proposed cause and effect framework resonate? Could it be applied to your recreational safety operations?

- Do you agree with the root causes, control measure areas and recreational participant segments outlined?
- Can you provide any ideas that could further improve the proposed framework?
- What are the positive benefits you can see by NZSAR establishing the proposed recreational safety framework?
- What are the risks and concerns you have regarding NZSAR establishing the proposed recreational safety framework?
- What role, if any, do you think NZSAR could or should play with regard to its provision of the proposed recreational framework?

A total of 20 stakeholder interviews were conducted to explore these areas of interest for NZSAR. The outcome of the interviews is included in the findings/discussion section of this report.

Developing the draft framework and findings and re-engaging stakeholders

Having considered the extremely valuable feedback obtained through the stakeholder engagement process, an initial draft of the proposed recreational safety framework was developed along with key findings from the process.

This content was presented to a small stakeholder group assembled by NZSAR secretariat consisting of a mix of some stakeholders who had been interviewed during the process and some other stakeholders who received the content for the first time. The objective of the workshop, conducted in May 2016, was to test the proposed model and gain any further insights to enhance it.

With feedback captured, an executive summary of the proposed framework including the proposed framework and draft recommendations was developed and further distributed to all stakeholders for final feedback before publication of the project report.

The Recreational Safety Framework

The proposed recreational safety framework has been developed to provide a pathway and methodology to:

Define the context of recreational activities

Activities, undertaken on land, in water, on water and in the air, that are not provided by a commercial entity (such as an adventure tourism provider or recreational facility serving school groups) or those recreational activities governed by a sport and recreation organisation (such as organised sport or adventure races). Recreational activities such as walking in the bush, swimming on lakes and beaches, mountain biking on trails, trailer boat or trout fishing are the focus of this framework.

Break down recreational safety incidents into key causal factors

By understanding and breaking down what causal factors lead to recreational safety incidents it is possible to use these factors to underpin data collection, intelligence gathering and evidence based decision making. Five key causal factors were identified that could lead to a recreational SAR incident:

1. Ignorance, disregard or misunderstanding of recreational activity hazards
2. Lack of information and awareness about the activity, environment and safety implications.
3. Inability to cope once in an uncertain situation or when exposed to recreational hazards.
4. Lack of effective monitoring, supervision or surveillance while exposed to recreational activity hazards.
5. Inappropriate equipment selection or equipment failure.

It is proposed that the level of definition of the above factors is tight enough to be mapped against corresponding control measures while broad enough to encapsulate the breadth of environments and range of activities undertaken. It is possible that they could further broken down into sub-causes, which may occur over time, however initially this is not proposed due to a lack of data to support this approach and because the framework already presents a number of new concepts, and thus further 'resolution' at this stage may risk confusing the intent of the proposed recreational safety framework.

Unpack control measures and map against causal factors

Mapping key control measure categories that, when underpinned by the evidence base and risk assessment data, will assist NZSAR secretariat, SAR agencies and other aligned parties to focus their efforts, resources, collaborative activity and priorities on the most important solutions that will unlock safer recreation.

The key control categories, mapped against the corresponding cause factors proposed include:

1. Provide warnings regarding hazards & deny access to hazards (subject to risk assessment) *to control the risk of* ignorance, disregard or misunderstanding of recreational activity hazards

2. Educate & inform recreational participants, and the people that influence those participants, to recognize their own recreation capabilities, understand the threats to their safety posed by the activities undertaken and use this information to make effective personal safety decisions *in order to control the risk of* a lack of information and awareness about the activity, environment and safety implications.

3. Increase coping / self-help capability so that participants can recognize uncertain situations and act early to mitigate the consequence of the situation they find themselves in *to control the risk* of participant inability to cope once in an uncertain situation

4. Strengthen recreational participation intelligence of all stakeholders including land and water management authorities, SAR agencies and the participants to recognize emerging threats, such as changes in weather conditions or natural hazards relative to exposure rates (number of participants) and act early to mitigate the consequence of the threat posed *in order to control the risk of* a lack of effective monitoring, supervision or surveillance while exposed to recreational activity hazards.

5. Provide guidance and strengthen regulation where appropriate to ensure participants understand what equipment is or is not appropriate or compliant for the activities being undertaken *in order to control the risk of* inappropriate equipment selection or equipment failure.

Collect participation and incident data to conduct sector wide risk assessment

A significant focus to enhance the collective effort, is the sector working in a more aligned manner to collect data and synthesize data against the root cause factors and participant user groups of international tourists, domestic tourists, recent migrants to New Zealand and local users. On a macro level, if we know 'who' is participating in which environment and in what activity, and, we understand what incidents are occurring and what is causing those incidents, the sector will be able to collectively work towards providing initiatives that allow a much more targeted, evidence based approach to implementation of recreational safety measures. Incident data can provide an understanding of causes of incidents which can be applied to provide the right participants with the right solution(s) using participation data (or exposure data).

Provide greater clarity on the national objective.

Through the application of evidence, control measures will be executed where they are needed most, thereby managing the macro risk profile for recreational safety. In other words, an increase recreational safety will result in a reduced reliance on SAR response services.

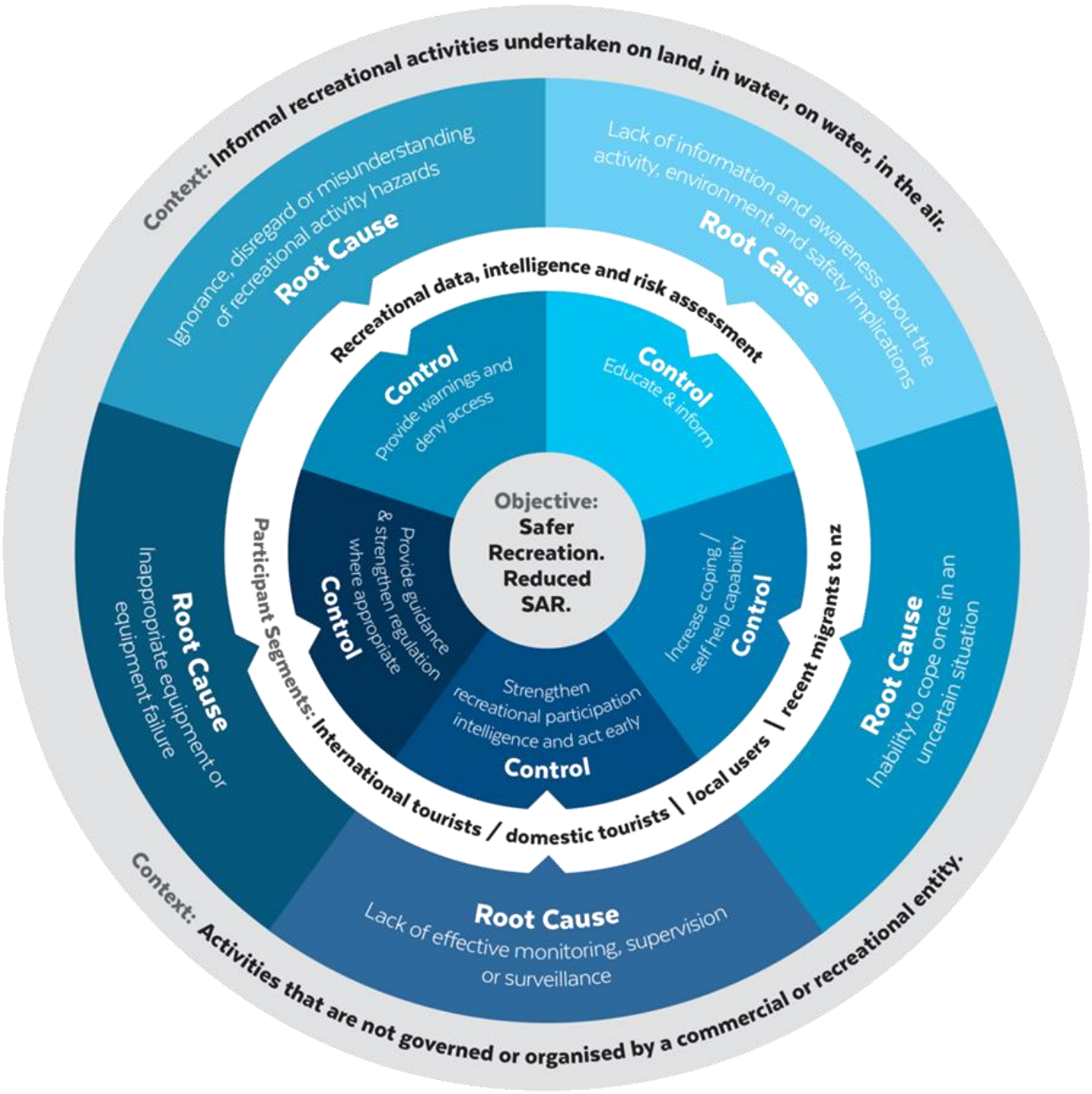


Figure 4: Proposed recreational safety framework

Operationalising the proposed recreational safety framework

In order to start applying the proposed recreational safety framework, it is possible to map various organisations in the recreational safety sector against the overarching framework. This process allows:

a. visibility of the sector to understand which organisations are focussing on which environments
b. visibility of the sector to understand which root causes organisations are primarily trying to offset (i.e. education, hazard management, survival programs, regulation of equipment etc.)

c. visibility of which recreational participant segments each organisation is actively striving to apply their solutions to (i.e. international tourists, domestic tourists, recent migrants to New Zealand

The proposed benefits of the mapping exercise outlined above include:

- Identification of gaps (i.e. does the evidence show a certain participant segment in a particular environment(s) is not being exposed to control measures to counter the corresponding root cause).
- Stimulating inter-agency collaboration where multiple agencies are involved in trying to target certain participant segments or control measure categories. Rather than try and provide their solution in isolation, agencies can work together to strengthen the outcome of their collective effort. For example, agencies trying to reach the international tourist may be able to collectively workshop the 'journey' of the international tourist and consider how they can best engage the end user with important interventions at various points throughout their journey.
- Identification of duplicated effort (i.e. where two or more agencies and trying to solve the same problem, with the same solution with the same targeted participant segment.
- Linking investors in recreational safety to the sector's needs to assist with growing the total investment in the recreational safety sector and ensuring the sector prioritises its existing resources as effectively as possible.

Strategic mapping of the recreational safety sector version 1.0

An initial version of sector mapping against the proposed recreational safety framework has been prepared on the next page (Figure 5). This should not be interpreted as a 'full and final' iteration of the recreational safety sector and has been produced following a review of each stakeholder's strategic plan and from the one on one interview process.

The objective of this mapping example is to demonstrate how the overarching framework can be operationalised by considering the range of national level stakeholders involved in recreational safety and which root causes those stakeholders are trying to offset through the programs, projects and initiatives they deliver and which recreational participation segments those initiatives are targeted towards.

Using the risk assessment (driven by participation and incident data) it would be possible to determine in which areas any gaps may exist (blind spots) and also where there is duplication or inefficiencies which can be identified and addressed through stakeholders engaging constructively to provide the best possible result for the participant or 'end user'.

Organisation / Recreational Environment (National Organisations)	Control Measure Focus					Recreational User Segments Targeted			
	Provide warnings regarding hazards & deny access to hazards	Educate & inform recreational participants to make safe participation decisions	Increase coping / self-help capability when exposed to hazardous situations	Supervision, surveillance and monitoring programs while participants are exposed to the hazard	Provision of equipment guidance and regulations.	International Tourist	Migrant	Domestic Tourist	Local
Air Recreation									
Civil Aviation Authority	✓	✓	✓	✓	✓	×	×	✓	✓
On Water Recreation									
Coastguard New Zealand	×	✓	✓	✓	✓	×	×	✓	✓
Rescue Coordination Centre of NZ	×	×	×	✓	×	✓	✓	✓	✓
Maritime NZ	×	✓	×	×	✓	×	×	✓	✓
In Water Recreation									
Surf Life Saving NZ	×	✓	✓	✓	✓	×	×	✓	✓
Water Safety NZ	×	✓	✓	×	✓	×	×	✓	✓
Swimming NZ	×	×	✓	×	×	×	×	×	✓
Land Recreation									
Land Search & Rescue	×	✓	×	×	×	×	×	×	✓
Mountain Safety Council	✓	✓	✓	✓	✓	×	×	✓	✓
Department of Conservation	✓	✓	✓	✓	✓	✓	✓	✓	✓
Injury Prevention / Recreational Safety Generic									
NZ Search & Rescue (Adventure Smart)	×	✓	×	×	×	✓	✓	✓	✓
NZ Police	✓	×	×	✓	×	✓	✓	✓	✓
Tourism Industry Association	×	✓	×	×	×	✓	×	✓	×
New Zealand Met Service	✓	✓	×	×	×	×	×	✓	✓
Accident Compensation Corporation	×	✓	×	×	×	×	×	✓	✓
Sport New Zealand	×	✓	×	×	×	×	×	✓	✓
Territorial Local Authorities (TLA's)	✓	✓	×	✓	✓	✓	✓	✓	✓
NZ Recreation Association	×	×	×	×	×	×	×	✓	✓

Figure 5. Example of how the recreational safety sector can be mapped against the proposed recreational safety framework.

Discussion & Findings

Having engaged a range of NZSAR's stakeholders across a range of perspectives, including government agencies, non-government SAR agencies, organisations with a significant 'touch point' with recreational participants, territorial local authorities and funding organisations there is generally a significant level of consensus regarding the desired pathway for a recreational safety framework and the role NZSAR could play as a leader on behalf of this important sector.

There is a genuine gap in leadership and advocacy

Almost all of those stakeholders interviewed agreed that there is currently no cross-environment, evidence based framework to underpin how New Zealand manages recreational safety. The NZ Government does not have a 'Ministry of Recreational Safety' and thus the sector has never been unified under a single point of reference. There are a large number of stakeholder organisations working extremely hard to enhance recreational safety. Funding organisations invest significant funds into recreational safety. In recent years there have been increased efforts to at least align environment specific sectors, such as water safety, with the ACC led 'Drowning Prevention Strategy' established during the mid-2000's which has now been superseded by a Water Safety New Zealand led 'Water Safety Sector Strategy 2020'. While these types of strategies can play an important role in aligning the efforts in each environment, they don't address the challenge of cross-environment coordination of recreational safety. There are numerous reasons why cross-environment coordination can add value including:

1. Evidence from Distill Research (2015) shows end users participate in multiple recreational activities in multiple environments. An environmentally fragmented approach effectively creates an environment where multiple organisations are simultaneously trying to deliver preventative solutions in isolation of each other. This can create confusion, reduced impact/penetration of messaging and conflicting messages.
2. Having a single 'voice' for recreational safety via NZSAR can allow the sector to tell its story to government and funding organisations to ensure the sector is resourced effectively to implement risk reduction measures.
3. Cross-environment coordination can strengthen the overall capability of the sector through the sharing of best practices and provision of capability building initiatives required by the sector.
4. In order to stimulate genuine collaboration, the participants must have a clear and common objective. Providing a "New Zealand Inc" level framework with the clear objective and methodology of achieving "*Safer recreation and less SAR responses*" together with the frameworks cause and effect model, provides the clarity required to stimulate more effective sector collaboration.

The framework must build and sustain an evidence base to drive sector effort

The report "Outdoor Recreation Participation and Incidents in NZ" produced by Annie Dignan & Gordon Cessford (2009) has been previously referred to earlier in this report including the recommendations for enhancing the collection, analysis and use of recreational participation and incident data.

Having the proposed recreational safety framework in itself is useful in providing direction to recreational safety stakeholders at national, regional and community level. The notion of understanding what causes recreational safety incidents, completing a risk assessment relative to those causes to determine the most effective form of control measure is fundamentally productive and a positive step forward.

However, to realise the great opportunity for the recreational safety sector to take significant steps forward in the sophistication, efficiency and accuracy of its effort, it must make changes to how relevant data is collected, stored and analysed into meaningful intelligence. Intelligence informs the sector wide risk assessment of who is at risk and which controls can reduce the risk for those participants. Intelligence provides an objective assessment of prioritisation of resources and, over time, the effectiveness of the controls which have been implemented.

All stakeholders engaged supported a role for NZSAR to play a stronger, broader role in leading the sector in improvements in strengthening the evidence base. There are some examples of good practice, such as the work being done by the NZ Mountain Safety Council which has recently completed and is in the process of publishing a report entitled "There and Back". This report includes a very strong focus on 'big data' where insights have been formulated using a range of data sets including ACC, NZSAR and internally held data. It provides a breakdown of where the challenges lie and will be an excellent tool for that organisation and its stakeholders to provide evidence based initiatives. This has been a complex and costly journey for NZ Mountain Safety Council and thus, in consideration of a cross-environment approach to accessing and using 'big data' is seems sensible that NZSAR take a lead role on behalf of the recreational safety sector with the outputs of this used to provide guidance and prioritisation for the recreational safety effort in New Zealand.

In order to have a robust economic debate in order for the recreational safety sector to be resourced effectively it goes without saying an evidence base is needed comparative to the likes of road safety. If NZSAR is equipped with this evidence as a result of sector cooperation and data sharing, it can effectively advocate for recreational safety to government and non-government sources of investment. Equally, having engaged some of those sources of investment, there is a desire from funders for NZSAR to provide leadership and guidance to support the investment decision making process. While funders reinforced the importance of making their own independent investment decisions, all were overwhelmingly supportive of a national recreational safety framework, supported by a strong evidence base, which they could use as a point of reference as they consider their allocation of funds.

Equally, the evidence base can be used by each individual SAR stakeholder involved in providing recreational safety initiatives. As an example, Surf Life Saving New Zealand, being aligned to the ILS global drowning prevention framework, has demonstrated effectively how it can focus its efforts and national, regional and community level using a similar cause and effect framework.

As shown above, a single point of truth or source of insight using 'big data' can have multiple applications which may result in strong alignment of effort, increased sector collaboration, more effective investment decisions and prioritisation clarity leading to a more efficient sector.

Build sector capability to respond to the evidence based need

Throughout the interview process when asked "what role could or should NZSAR play in recreational safety (prevention)?" stakeholders raised the opportunity of investing in sector capability building initiatives in terms of its workforce. This project has demonstrated there are a large number of talented and committed people focussed on improving recreational safety. There are some key areas of effort where organisations are constantly challenged in achieving significant results including developing systematic risk management tools to prioritise organisational focus, influencing public behaviour and measuring the effectiveness of the control measures and initiatives being implemented.

Through the proposed recreational safety framework, as it becomes populated by a strong evidence base, NZSAR will be in a healthy position to have visibility and relationships with a large range of stakeholders. Undertaking annual people development 'surveys' or similar could be undertaken to understand which areas NZSAR's stakeholders need professional development. This training and development could be coordinated by NZSAR and bring participants together. In addition to increasing the individual capability of participants in their roles, this approach would also increase the connectivity, networking and resulting collaboration of participants.

What NZSAR's stakeholders said about the proposed recreational safety framework:

"if we could see a sector map it would assist with stronger agency collaboration"

"provides a useful thought provoking assessment of cause and effect"

"while framework based it allows agencies to quickly get into action… SAR people are action oriented people."

"It's a logical approach. Puts us in a good space. Can't argue with cause and effect based framework".

"provides a systematic approach for the sector to respond to the problem"

"national coordination by NZSAR would be useful. Carries more weight when applied locally"

"the framework highlights gaps in the prevention space"

Consider stakeholder concerns when commencing implementation

While there has been a general consensus of support for NZSAR extending its role to include leadership of recreational safety in the context outlined in this report, stakeholders did raise concerns and questions for NZSAR to consider at it progresses with implementation of the proposed recreational safety framework.

There is genuine concern of NZSAR stakeholders regarding the capability and capacity of the existing NZSAR secretariat to play the sort of role being proposed in this report. There are undeniable and significant costs, particularly in moving the evidence base into a modern, 'big data' model to place the recreational safety resource debate on a similar level to other public safety discussions, such as road safety. NZSAR would need to advocate for additional resources through its central government revenue stream to grow its capacity. There was a strong sense that while a stronger approach to prevention is warranted, this should not be at the expense of

sustaining NZSAR's more traditional role of ensuring the country has an appropriate response capability when called upon.

Another concern was the potential overlap between the recreational safety framework and other environment specific frameworks or strategies, particularly when organisations are competing for resources. This can be mitigated to a fair level through NZSAR remaining engaged with the organisations that lead sector strategies (perhaps Water Safety NZ, NZ Mountain Safety Council and Civil Aviation Authority) ensuring there is alignment as much as possible. In addition, NZSAR should take proactive steps in engaging with funding organisations to ensure there is awareness of the national recreational safety strategy relative to existing environment specific strategies (such as reciprocal endorsement between documents so they are not considered in isolation or competition with each other). As an example, the NZLGB Outdoor Safety Committee will determine the distribution of funds later in 2016 with the various organisations to receive funds having already applied for those funds prior to this report being completed. It would be problematic for the committee to have any confusion regarding their distribution of funds this financial year as this report becomes known. A key consideration when engaging funding organisations is that there are different levels of scope for the respective strategies at national and environmental specific levels. The national recreational framework is established at a macro level across all environments to ensure a coordinated approach is taken to recreational safety in this country. It is not proposed to drop into specific technical or operational detail at a community level in the manner that environmental specific strategies may.

A key challenge raised during stakeholder interviews was the limitations in play for volunteer membership based organisations. While NZ enjoys perhaps one of the most 'volunteer' societies on earth, as NZ's tourism and resident population has evolved, so too has their recreation patterns. NZ's volunteer membership based organisations constantly do their best to evolve their efforts to reflect these dynamics, however, the notion of volunteerism is somewhat aligned to the lifestyles and satisfaction drivers of those who volunteer, and thus this presents a pressure point for these organisations. For example, the Coromandel Peninsula was once an inaccessible area where it's coastline was accessed by far fewer people who were often repeat visitors to its camping grounds and holiday homes. In 2016 there is a two-lane sealed road stretching to the far northern aspect of the peninsula which is frequented by tourist bus companies, campervans and day visitors – often people with little or no knowledge of the coastline hazards. This has changed the demands placed on the likes of Surf Life Saving New Zealand where the traditional volunteer lifeguard model, despite being incredibly effective for over one hundred years, is not a sustainable solution in very low population areas. Unlike 're-tasking' police assets, SLSNZ is unable to 're-task' volunteers to meet these needs. There is a sense that with long term (15-20 years +) there will be an increased need for a more blended (professional, government funded and volunteer, community funded) model to meet NZ's recreational safety requirements. This is an issue which will affect many of NZSAR's stakeholders including Coastguard New Zealand, Surf Life Saving New Zealand and Land Search and Rescue. Over time, building an evidence based recreational safety framework, with NZSAR in a key leadership and advocacy role, will support a longer term consideration of how NZ evolves its historical approach to recreational safety relative to modern demands.

Modernise and build on Adventure Smart

While not a core focus of this project, the 'Adventure Smart' website was mentioned by various stakeholders with strong feedback that while having a single point of truth for outdoor safety information to be accessible is important, perhaps the medium of a website is no longer the most optimal platform for this valuable asset. There is a strong sentiment that the content in Adventure Smart should be re-packaged into a smartphone application and enhanced with modern technologies such as geo-related messaging (i.e. when a tourist approaches an area with known hazards, the application could push safety messages the participant in their language) and cross-promotion with major tourism applications (such as trip advisor or booking applications).

What are NZSAR stakeholder's concerns regarding the proposed recreational safety framework?

"Does NZSAR have the capability and capacity to lead?"

"How will this framework sit relative to the Water Safety Sector Strategy 2020?"

"Will this confuse funders…especially in the short term… NZLGB this year?"

"Is there sufficient maturity in the sector to take a NZ Inc approach?"

"There is insufficient data to provide the evidence base needed"

"If it means shifting the volunteer effort, this is incredibly challenging… while they are our members, we don't 'control' them"

"Will agencies willingly commit to pooling data – both government and NGO?"

Summary

In closing, this project has engaged NZSAR stakeholders and explored the notion "*That the SAR Council coordinate the development of a joint preventative strategy that will place greater emphasis on preparedness and reduce the demand for SAR services in the future."*

The proposed response to this investigation, outlined in the recommendations section, is a proposed redefining of NZSAR's role to include leadership and advocacy of recreational safety (prevention), the ongoing development and implementation of the recreational safety framework outlined in this report, to be underpinned by an enhanced 'big data' evidence base from multiple sources, with the sector workforce supported with ongoing professional development and connectivity which, overall, will result in greater alignment and increased sector effectiveness.

This report should not be interpreted as a final version of the recreational safety framework. Over time it is envisaged the proposed evidence base will drive evolution of the framework to ensure the sector remains focussed and aligned.

Project Recommendations

To achieve the desired objectives outlined in the proposed recreational safety framework, a three-pronged game plan is required, supported by appropriate resourcing.

A. In order to fill the governance, thought leadership and coordination gap that exists, the NZSAR secretariat should assume a "cross environment" coordination, alignment and advocacy role for the recreational safety (prevention) sector.

1. That NZSAR council redefine its strategic goals with regard to recreational safety from "reduce the need for SAR services" to "to reduce the risk of SAR incidents, or in the event of a SAR incident, to reduce the negative consequences of such incidents" (or similar). This statement has a stronger alignment to accepted risk management standards internationally such as ISO31000:2009 Risk Management Principles & Guidelines.
2. That NZSAR Council adopt the proposed Recreational Safety Framework (RSF) as the underpinning thought model that will drive its approach to systematically strengthening the recreational safety (prevention) sector
3. That NZSAR secretariat provide thought leadership on behalf of the sector, to government and non-government organisations that provide resources, in order to generate additional sector resources to fill identified gaps.

B. To focus effort, prioritise resources and respond to an evolving recreational risk profile, build the evidence base and translate it into sector workflows, NZSAR secretariat should:

4. Take a thought leadership role on behalf of the sector regarding more effective and coordinated collection, supply and synthesis of data (both participation (exposure) and incident data) on an ongoing basis.
5. Establish agreements with organisations that currently collect relevant data to inform a national risk profile of recreational safety exposure and incidents.
6. Provide an ongoing information, intelligence and risk assessment service to the sector to ensure the recreational safety framework is underpinned by a strong evidence base.
7. Subject to the proposed risk assessment process, seek resources and take steps to fill identified recreational safety gaps. As an example, the initial sector mapping against the proposed framework indicates a gap may exist in servicing the international tourist participant segment.
8. Consider publishing an annual 'recreational safety report' to capture and report on sector performance, highlight key risk areas which require focus, showcase best practices and generate public and media awareness of recreational safety issues.
9. Where there is an opportunity to source and distribute funds to NZSAR partners (for prevention initiatives), ensure the criteria used to determine resource allocation is aligned to the proposed recreational safety framework including the evidence base generated by the risk assessment process.

C. To build sector capability and connectivity to realise outcomes, NZSAR secretariat should:

10. Coordinate and convene recreational safety forums to focus sector thinking and foster stronger collaboration on recreational safety across environments. It is recommended forums should have structure and function relative to the proposed framework and work collaboratively to maintain and evolve the framework and its enabling components.
11. Support and enable activities that strengthen people capability across NZSAR's partners in critical areas (such as risk management, public messaging and behavioural change) in order to grow the capability and capacity of the recreational safety sector in the areas that will enable it to be more effective and cohesive. This may include a mix of professional training and sharing of industry best practice (domestically and internationally).
12. Invest in a re-development of 'Adventure Smart' to ensure it is optimised to meet the needs of, and reflects the behaviours of, modern recreational participants across all participation segments. Initial concepts raised for consideration include development of a smartphone application with linkage to local hazard and safety messaging via geo-tracking functionality. Consider opportunities for joint venture with mainstream tourism industry organisations (i.e. Trip Advisor App and/or similar).

Appendix

A. Schedule of stakeholder documents reviewed during online review

- Review of the NPBSF Recreational Boating Safety Strategy – Iain Matheson, May 2014
- Accident Compensation Corporation – Strategic Plan
- Adventure Smart Outdoor Safety Code
- Coastguard New Zealand – Strategic Plan
- Department of Conservation – Statement of Intent 2015-2019
- NZ Mountain Safety Council – 2020 Strategic Plan
- NZ Meteorological Service – Company Profile
- NZ Police – Visitor Guide (English verion)
- NZ Recreation Association - Strategic Plan 2015-2020
- Maritime NZ "Stay on top" publication
- Maritime NZ "Safer Boating – an essential guide" 2014
- Surf Life Saving New Zealand – Strategic Plan 2015-2017
- Sport New Zealand – Group Strategic Plan 2015 – 2020
- Tourism Industry Association – "Growing Value Together" – Tourism 2025
- Maritime NZ "Waka Ama Safety Rules"
- Ngä Waka Federation in association with Maritime Safety Authority – Kaupapa Waka, The Safety Report
- Land Search & Rescue New Zealand – Strategic Direction
- Water Safety New Zealand Sector Strategy 2020
- New Zealand Search & Rescue - Strategic Plan 2014-2016

B. Presentation to stakeholder group assembled by NZSAR 13 May 2016

The attached presentation document was delivered to a stakeholder group assembled by the NZSAR secretariat to consider the initial findings and thought model which emerged from the project.

HIGHT: STRATEGY & RISK

RECREATIONAL SAFETY FRAMEWORK

Building sector cohesion to strengthen recreational safety in NZ.

DRAFT INSIGHTS – 13 MAY 2016

DRAFT DOCUMENT - FOR DISCUSSION

Project Introduction

- Driven by 2015 NZ SAR governance review.
- The review noted that “too much emphasis on response may overlook opportunities for complementary activities that promote awareness of the risks and the value of personal preparedness.”
- NZSAR Council has a goal to reduce demand for SAR services. *“We seek an informed and responsible public. We will collaborate, inform, contribute to, and when required, coordinate or lead public-focused preventative strategies and actions for individuals, groups and organisations. We want to ensure the New Zealand public and guests to our country are appropriately informed and assist them to take personal responsibility for their activities in order to reduce the need for search and rescue services”.*
- The 2015 review recommended: “*That the SAR Council* ***co-ordinate the development of a joint preventative strategy*** *that will place greater emphasis on preparedness and reduce the demand for SAR services in the future”.*

Process

1. Establish the problem statement… *“How can NZSAR develop a whole of sector evidence based and measured framework to strengthen sector cohesion, support decision making and improved prioritisation of resources that result in a reduced need for SAR services in New Zealand?”*
2. Design analysis required to answer the question and address contingent issues (stakeholder identification, review of research, develop “day 1 solution”, stakeholder engagement, refinement).
3. Develop draft recreational safety framework
4. Develop DRAFT recommendations for NZ SAR consideration in relation to the framework.

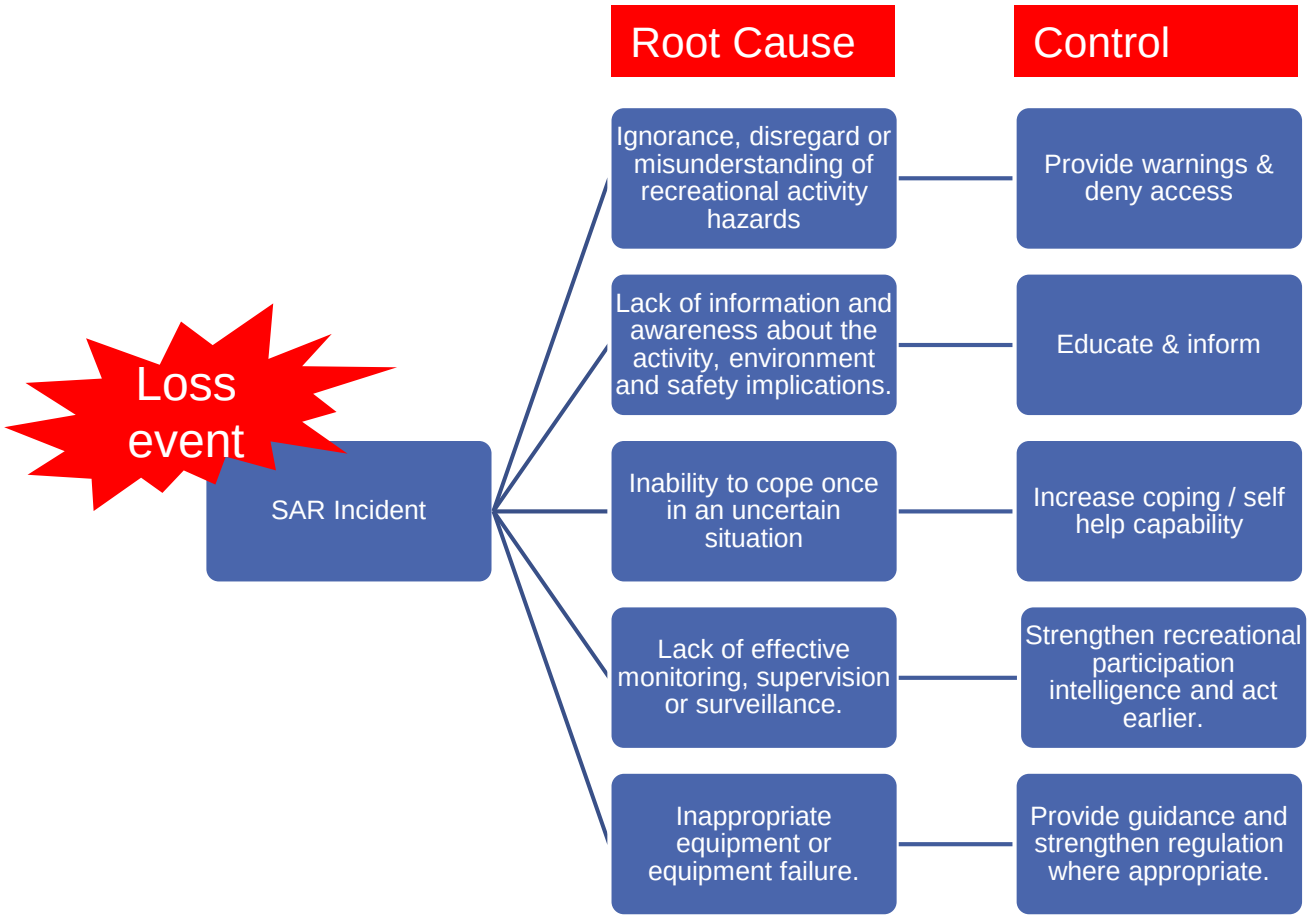
Establishing Context

- In Water
- On Water
- Land
- Air
- Non-commercial activities
- Non-’governed’ activities
- All users – international tourists, domestic tourists, locals, recent migrants
- Nothing “after the fact” (i.e. traditional SAR capabilities), prevention focus

Who has been engaged thus far?

- Sport New Zealand
- Accident Compensation Corporation
- Department of Conservation
- Civil Aviation Authority
- RCCNZ / Maritime NZ
- NZ SAR secretariat
- Coastguard New Zealand
- Surf Life Saving New Zealand
- NZ Mountain Safety Council
- Water Safety New Zealand
- Swimming New Zealand
- Department of Internal Affairs
- Foundation North
- Auckland Regional Amenities Funding Board
- Waikato Regional Council
- NZ Meteorological Service
- NZ Tourism Industry Association
- NZ Police
- …and still engaging (NZRA, WAI, MNZ).

Unpacking the problem…



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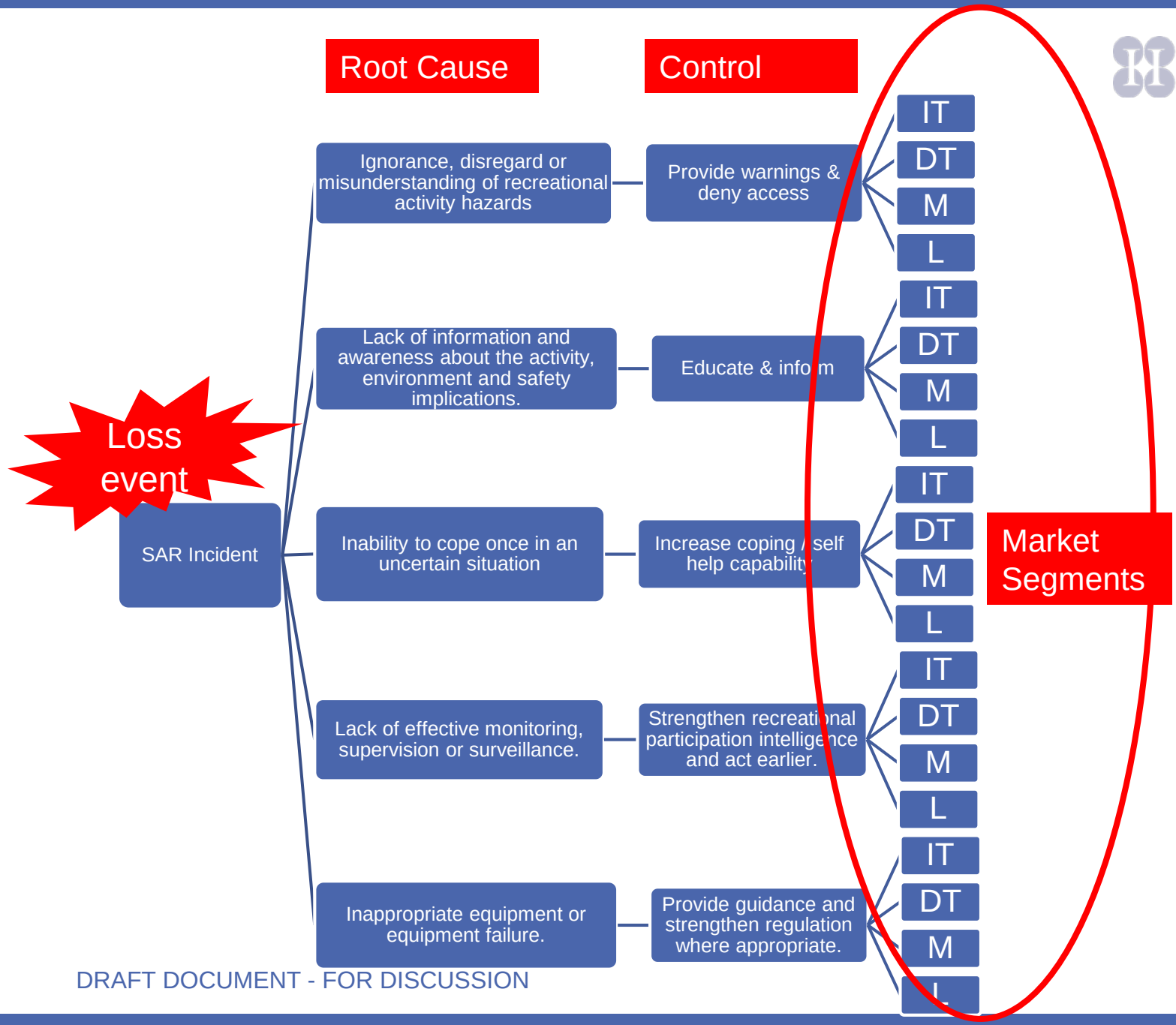
Its more complicated than that...



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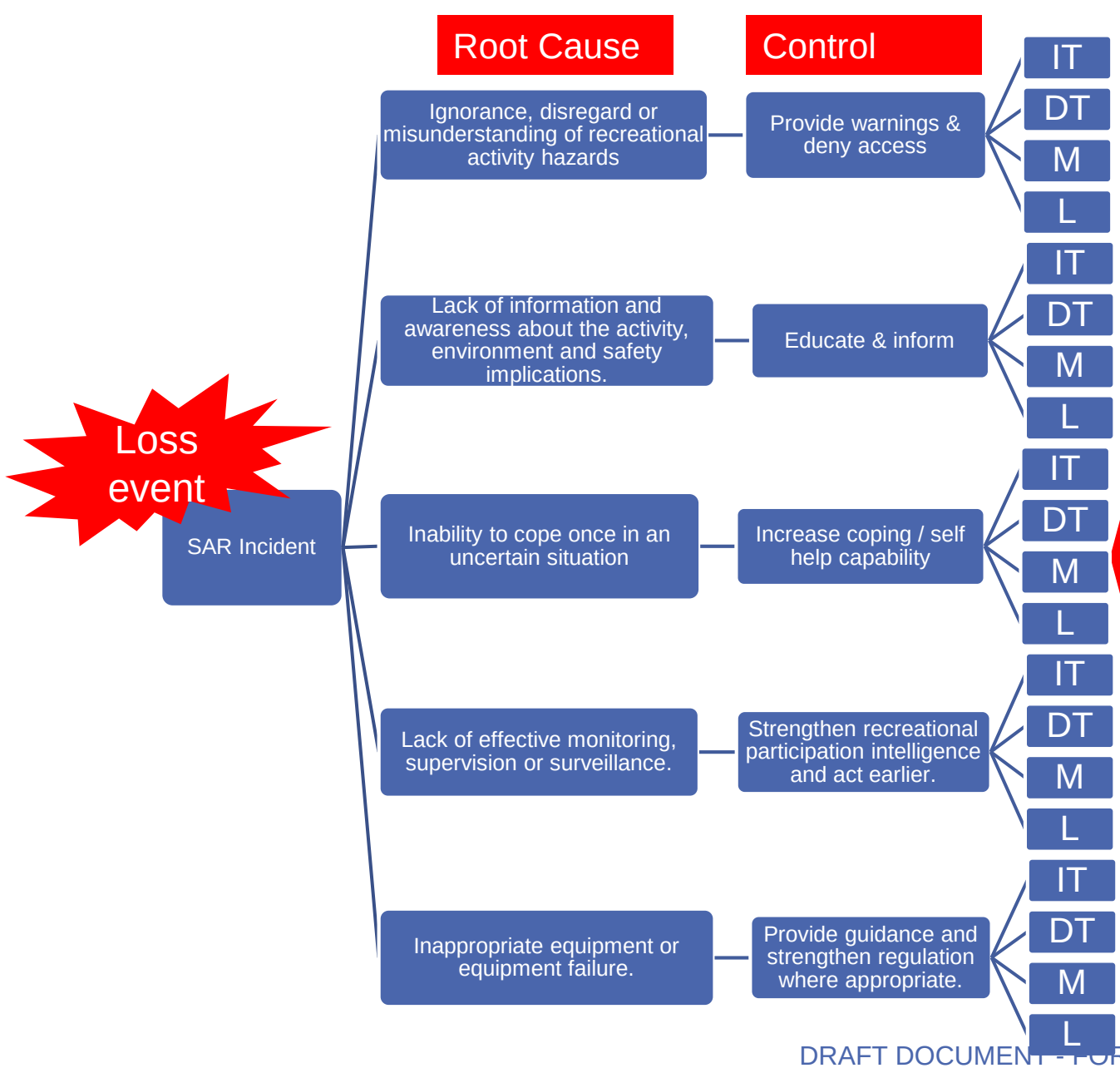

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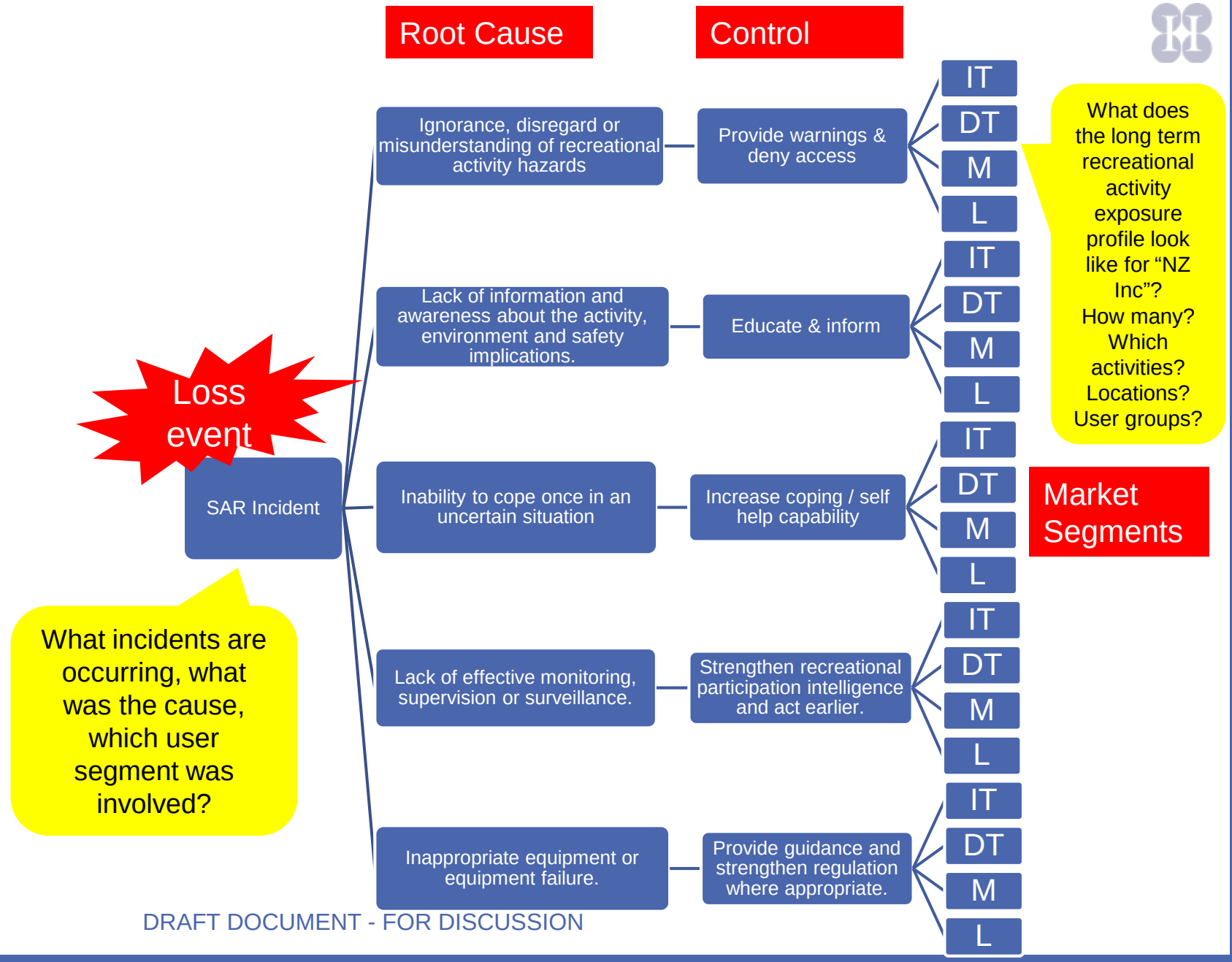
Data is needed to provide risk assessment insights… and focus sector effort.



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Previous Work: *Outdoor Recreation Participation and Incidents in NZ.* Annie Dignan & Gordon Cessford (2009).

- Data Consistency – standardisation of any classifications or categories used for data recording, storage and reporting. This would include classifications' of activity type, incident type and other descriptive variables
- Data standards – ensure data is collected from the field, that it is collected accurately and consistently, and that it is entered into suitable databases
- Cross-sector collaboration – identify partner groups and develop statements of shared goals, interests and needs
- Joint projects – combine resources and resource seeking capacity by running more joint initiatives and research projects
- National Incident Database – investigate how this could be used to start collecting incident and participation data across the whole sector. This also allows incident severity measures to be included, which can significantly increase database value for targeted study
- User counts in the field – assist land managers set up, operate and apply visitor counting systems with trials and case studies
- Support research – look for ways to create beneficial research opportunities and collaborations, especially based on shared cross-sector needs.

Stakeholder feedback...What attributes does the proposed Recreational Safety Framework need?

- High level – not operational / program specific
- Ability to be supported by evidence
- Which environments?
- Which organisation(s) are involved in each environment?
- Which root causes are each organisation focussing on?
- Which market segments are each organisation targeting?
- Catalyst for sector cohesion and collaboration
- Must not duplicate other sector work – drowning prevention industry strategy etc.

A NZ Inc response.

1. Where is the exposure?
2. Who is the target?
3. What is their journey?
4. Which organisations can assist?
5. What are the primary controls needed?
6. Execute
7. How effective were the controls / reassess exposure?

	Root Cause Focus					Recreational User Segments Targeted			
Organisation / Recreational Environment	Provide warnings / deny access to hazard	Education and/or information	Provision of survival / self help programs	Supervision, surveillance and monitoring programs	Provision of equipment guidance and regulation.	International Tourist	Migrant	Domestic Tourist	Local
Air									
CAA	Y	Y	Y	Y	Y	N	N	Y	Y
On Water									
Coastguard NZ	N	Y	Y	Y	Y	N	N	Y	Y
RCCNZ	N	N	N	Y	N	N	N	Y	Y
Maritime NZ	N	Y	N	N	Y	N	N	Y	Y
In Water									
Surf Life Saving NZ	N	Y	Y	Y	Y	N	N	Y	Y
Water Safety NZ	N	N	Y	Y	N	N	N	Y	Y
Swimming NZ	N	N	Y	Y	N	N	N	N	Y
Watersafe Auckland	N	N	Y	Y	N	Y	Y	Y	Y
Land									
LandSAR	N	Y	N	Y	Y	N	N	Y	Y
Mountain Safety Council	N	Y	Y	Y	Y	N	N	Y	Y
Department of Conservation	Y	Y	Y	Y	Y	Y	Y	Y	Y
Injury Prevention / Safety Generic									
NZ Police	N	N	Y	N	Y	Y	Y	Y	Y
Tourism Industry Association	N	N	N	N	N	Y	Y	Y	N
Met Service	N	Y	N	N	Y	N	N	Y	Y
ACC	N	N	Y	N	N	N	N	Y	Y
Sport NZ	N	N	N	N	N	N	N	Y	Y
Territorial Local Authorities (TLA's)	Y	Y	N	N	N	N	N	Y	Y
NZ Recreation Association	N	N	N	Y	Y	N	N	Y	Y

DRAFT DOCUMENT - FOR DISCUSSION

Summary: Value

- “if we could see a sector map it would assist with stronger agency collaboration”
- “provides a useful thought provoking assessment of cause and effect”
- “while framework based it allows agencies to quickly get into action… SAR people are action oriented people.”
- “It’s a logical approach. Puts us in a good space. Can’t argue with cause and effect based framework”.
- “provides a systematic approach for the sector to respond to the problem”
- “national coordination by NZ SAR would be useful. Carries more weight when applied locally”
- “highlights gaps in the prevention space”

Summary: Risks / Concerns

- “Does NZ SAR have the capability and capacity to lead?”
- “How will this framework sit relative to the Water Safety Sector Strategy 2020?”
- “Will this confuse funders…especially in the short term… NZLBG this year?”
- “Is there sufficient maturity in the sector to take a NZ Inc approach?”
- “There is insufficient data to provide the evidence base needed”
- “If it means shifting the volunteer effort, this is incredibly challenging… while they are out members, we don’t ‘control’ them”
- “Will agencies willingly commit to pooling data – both government and NGO?”

Summary: A role for NZ SAR in prevention?

- Yes – widely supported, there is a genuine gap
- Convene forums to focus agency thinking on recreational safety across environments
- Leadership and advocacy on collection, supply and synthesis of data (both participation (exposure) and incident) on behalf of sector
- Support sector capability – professional development to support effective interventions for areas of exposure (across all environments)
- Modernisation of adventure smart (smart phone app, geo advice, attraction linked)
- Advocacy for additional sector resources to fill identified gaps

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DRAFT DOCUMENT - FOR DISCUSSION