

NEW ZEALAND SEARCH AND RESCUE

Rapu Whakarauora Aotearoa

NZSAR RISK MATRIX

Risk #	Risk Description	Reasons or Causes	Consequences	Probability	Impact	Risk Level (reviewed)	Risk Treatment(s)	Treatment Implementation	Post Treatment Impact	Comments/Examples
2022/11	Covid-19 Covid-19 in the community.	<p>Covid-19 resurgence within NZ community(ies), resulting traffic light, locally, regionally or nationally.</p> <p>Reduction or loss of operational response capability due to illness and/or standdown requirements.</p> <p>Covid-19 outbreak in Pacific Island necessary as a SAR base of operations.</p> <p>Management of NZ or off-shore rescued persons at risk of carrying / transmitting Covid-19.</p> <p>SAR operational personnel are denied access to an area of operation due to vector risks.</p> <p>Training opportunities for skill acquisition, skill refresher and collective training are negatively impacted.</p> <p>SAR people resign or withdraw labour due to vaccine mandate requirements.</p> <p>SAR people resign or withdraw labour due to exhaustion with the overall environment.</p> <p>SAR teams impacted by COVID or the associated restrictions reducing, or temporarily suspending, SAR capabilities in locations for periods of time.</p>	<p>Covid-19 in the community will have an impact on SAR readiness and response.</p> <p><u>Operational</u></p> <ul style="list-style-type: none"> SAR personnel / units / groups / sections are unavailable / unable / unwilling to respond to SAR incidents. Aircraft landing access to Pacific Islands is restricted or denied. Issues associated with the rescue / transfer of medevac patients deemed at risk of carrying Covid-19. Complexity of operational management overwhelms NGO management capacity Unavailability of SAR people / assets if they become unable to operate. Operational limitations imposed. People are unable to be located and or rescued. Avoidable injuries and/or death results. <p><u>Systemic</u></p> <ul style="list-style-type: none"> Funding sources / supply for SAR NGO agencies is reduced Restrictions on the availability and/or willingness of volunteers to participate in SAR activities. SAR equipment cannot be maintained at operational levels due to supply or maintenance disruptions. Training cannot be delivered reducing response capability Economic impacts reduces SAR volunteerism. Loss of systemic agility. 	Likely	Moderate	(June 2022)	<p>Risk treatment 2022/11/A: Operating procedures for keeping SAR personnel rescued persons safe from infection.</p> <ul style="list-style-type: none"> Providing agencies and coordinating authorities ensure all operating personnel have access to suitable PPE appropriate for the task/environment and training in is use. Rapid Antigen Tests are readily available for SAR agencies and personnel enabling 'test to return' practices. SAR response agencies provide training to their personnel on procedures for working with rescued persons at risk of carrying Covid-19. 	Yellow	Green	<p>Police Comment. For Cat 1/Police lead activity, PPE Leads in Districts have been briefed that where Police are tasking partner agency staff for SAR activities in a pandemic environment, or attempting to locate pandemic infected people then via the Duty SAR and PPE Lead:</p> <ul style="list-style-type: none"> Appropriate PPE will be supplied Appropriate instruction as to its carriage, use and disposal will be provided
						(June 2022)	<p>Risk treatment 2022/11/B: Procedures for managing off-shore rescued persons at risk of carrying Covid-19 are established</p> <ul style="list-style-type: none"> RCCNZ establishes procedures for managing rescued persons for transport directly to NZ RCCNZ established procedures for managing rescued persons not able to be transported directly to NZ 			
						(June 2022)	<p>Risk treatment 2022/11/C: Covid19 policies impact the SAR sector.</p> <ul style="list-style-type: none"> Influence Government COVID policy makers to ensure SAR interests are recognised. Source and provide information to assist NGO's develop sound organisational policies regarding Covid-19 vaccinations and operational impacts 			
						(June 2022)	<p>Risk treatment 2022/11/D: Monitor economic, people and operational impacts of Covid-19 on SAR Sector.</p> <ul style="list-style-type: none"> Coordinate sector wide information sharing and update meetings. Facilitate the passage of operational readiness information NZSAR Secretariat monitor and report on the economic, people and operational impacts of Covid-19 on SAR Sector 			
						(June 2022)	<p>Risk treatment 2022/11/E: Establish virtual telecommunications.</p> <ul style="list-style-type: none"> Sector will explore using virtual telecommunications to support SAR ops and SAR IMTs 			

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2022/01	Volunteerism Risks exist around the long-term sustainability of the SAR volunteer model.	Changing demographics and attitudes, work and family demands impact on volunteer recruitment, availability and longevity with the SAR sector.	<p>The SAR sector is highly reliant on volunteers for the safe delivery of effective SAR services.</p> <ul style="list-style-type: none"> Insufficient numbers of volunteers in the right locations is likely to impact on the safe delivery of effective SAR services. Volunteer turbulence increases the training burden and inhibits the formation of SAR leaders. Excessive demands on, and/or onerous administrative requirements deter people from volunteering and discourage existing volunteers from remaining. Infrequent utilisation for SAROPs can be dispiriting and discourage long term engagement. Volunteer disengagement can lead to them to leave SAR organisations. Stressful SAR events may cause harm to SAR personnel mental health and wellbeing. Non - engaged coordinating authorities, poor or inaccessible skill acquisition training, poor or infrequent SAR exercises can discourage existing volunteers from remaining. Volunteers may come to feel undervalued, unappreciated and disengage and possibly leave the sector. Economic influences deter volunteering or make it unsustainable. Agencies unable to draw on all NZers. Non representative and possible irrelevant to certain demographic groups. 	Possible	Major	<p>(Sep 22)</p>	<p>Risk treatment 2022/01/A: Maintain sound information on SAR volunteers</p> <ul style="list-style-type: none"> In conjunction with the major SAR voluntary agencies, establish and maintain good information about SAR volunteers, their expectations and motivations. Support occasional surveys of SAR volunteers. Minimise NZSAR Secretariat's administrative requirements where possible. Undertake work to understand barriers to volunteering for SAR and/or stopping SAR volunteering. 	Full	Ongoing	<p>Certain volunteer positions require people with specific technical expertise (i.e. AREC).</p> <p>Volunteer Data Standard established. Volunteer survey completed in 2022.</p> <p>The NZSAR Environmental Scan includes commentary on the changing nature of volunteerism in NZ society</p>				
		Volunteers can be asked to undertake tasks different to what they joined to do i.e. fundraising, administration, different type of operational task etc					<p>Risk treatment 2022/01/B: Maintain volunteer strategies</p> <ul style="list-style-type: none"> Assist Coastguard NZ, LandSAR NZ, SLSNZ and AREC to develop and maintain their own volunteer strategies focussing on the recruitment, retention and engagement of effective SAR volunteers reflective of NZ society. Work with agencies to develop and maintain appropriate mental health, wellbeing, fatigue management and peer support processes. 	Full	Ongoing	<p>NZSAR Volunteer study and four agency volunteer studies complete. Review underway</p> <p>SLA funding to support strategy development and implementation</p> <p>Volunteer strategy template developed.</p>				
		Increased compliance, legal responsibilities and other duties.					<p>Risk treatment 2022/01/C: Quality SAR individual skill acquisition training and collective exercises</p> <p>Conduct good quality, appropriately focussed and well evaluated SAR exercises at all levels of the SAR system and ensure relevant skill acquisition training is conducted. These activities enhance readiness, reinforce training and build cohesiveness and morale within the SAR sector.</p>	Partial	Ongoing	<p>Accessible, good quality individual and collective training will assist to keep volunteers engaged and retained.</p> <p>\$160k invested by NZSAR in 22/23</p>				
		Volunteers can be exposed to situations which affect their mental health and wellbeing. (see also Risk 2021/03)					<p>Risk Treatment 2022/01/D: Complete actions to address the recommendations from the 2020 NZSAR Volunteer Study.</p>	Full	2020 - 21	<p>All actions considered, most implemented. Review and update of the (NZSAR version) volunteer strategy underway (as at Sep 22)</p>				
		Volunteers can be exposed to situations which affect their mental health and wellbeing. (see also Risk 2021/03)					<p>Risk Treatment 2022/01/E: Examine the rationality of the SAR operational asset network, its locations, size(s) and capabilities. Compare to known and predicted SAR need. Links to 2022/01/D</p>	Full	2023	<p>Rec Safety and SAR review assets and activities workstream will deliver this treatment. Funded by NZSAR</p>				
		Growing public and legal expectations of SAR performance and competence impacts upon the training and commitment levels of SAR volunteers.					<p>Risk Treatment 2022/01/F: Work with and support SAR agencies to diversify their volunteer workforce.</p>	Full	2022 - 23	<p>Secretariat considering how best to incorporate te ao Māori advice within relevant work programmes</p>				
		Trained SAR Volunteers can be difficult to retain and motivate in areas where little SAR activity occurs.												
		Funding support for volunteers – (particularly back office functions & capabilities) affected by sufficiency and/or volatility (see Risk 2021/02)												
Rapidly changing economic climate, supply chain challenges, inflation, full employment, and other similar influences.														
Lack of volunteer diversity														

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2022/02	SAR Funding The sector experiences funding sufficiency and volatility risks.	Sufficiency. Funding for the wider SAR sector has a variety of sources. Funders may choose to lessen or withdraw their funding support. Insufficient funding is available for organisational infrastructure, support, back-office capabilities.	Inadequate funding for part or some of the sector may limit investment in training or equipment and lead to inadequate operational responses.	Possible	Moderate	(Sep 22)	Risk treatment 2022/02/A: SAR Funding Work with other key SAR funders to sustain adequate supply. Maintain sufficient PLA funding to NZSAR and Sector agencies to meet Council goals, workplans and address key identified risks.	Partial	Ongoing	PLA funding is reviewed triennially. LGB OSC is informed of SAR activity and statistics. Some NGOs are supported to undertake fundraising activities.
		Volatility. The funding levels for SAR agencies can be volatile due to profit variances with key gaming or lotteries trusts & boards. Grants policies also frequently change which can affect eligibility. Public appeals & donations are susceptible to change.	Volatile funding inhibits long term planning and investment. It also degrades sector effectiveness and efficiency.	Certain	Moderate	(Sep 22)	Risk treatment 2022/02/B: Funded SAR SLAs / MoUs Support key SAR providing agencies for the provision of effective SAR services with appropriately funded three-year Service Level Agreements or MoUs.	Full	Ongoing	Five x FED funded SAR SLAs in place with LSAR, CNZ, SLSNZ, AREC and MSC. 2 x Water safety funded SLAs in place with CGNZ and SLSNZ. Funded SAR MOUs are in place for Police and DOC.
						(Sep 22)	Risk treatment 2022/02/C: Monitor and Report Maintain an overall picture of SAR sector funding. Monitor sector capabilities and outputs and report on observed manifestations of funding sufficiency / volatility related changes to capabilities or outputs.	Partial	Ongoing	Funding volatility observed to increase due to Covid-19 impacts. Maintenance of overall funding picture ongoing and being enhanced for the Rec Safety and SAR review.

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2022/03	Health, Safety and Wellbeing Incident of avoidable harm to one or more SAR persons occurs.	Effective and consistent application of the Health and Safety at Work Act 2015 (HSWA) challenges the search and rescue sector.	SAR organisations, team and individuals fail to implement appropriate / necessary HSW processes and procedures. An avoidable physical or mental harm situation results. Audit or investigation detect and report on seriously deficient HSW arrangements. The sector may: <ul style="list-style-type: none"> be exposed to risk of prosecution. Audit or investigation exposes SAR sector health, safety and wellbeing deficiencies. 	Unlikely	Major	(Nov 22)	Treatment Option 2022/03/A: Implement sound HSW processes and procedures. The SLA documents include HSW provisions. SAR sector HSW monitoring and reporting occurs at the SAR strategic HSW Committee and a variety of other interagency SAR forums. HSW experiences and lessons are shared between SAR partner agencies. HSW Advice for the use of non-standard SAR assets has been developed and shared. HSW included in relevant individual and collective training. Independent review of HSW policies and processes occurs. Fatigue guidance prepared for the sector.	Full	Ongoing	SAR people are routinely exposed to a variety of hazardous situations, during operations, training and in base locations. Sector management understands the risks and requirements. Changing the culture to recognise the HSW risks and requirements across all SAR organisations at all levels is a multi-year journey.
	No (or poor) wellbeing support is made available for SAR people in support of their mental health.	One or more SAR persons is harmed or killed due to avoidable, and foreseeable circumstances.	<ul style="list-style-type: none"> suffer reputational damage. experience an outflow of personnel due to perceived risk. experience an outflow of personnel due to excessive H&S process requirements. 	Rare	Severe	(Nov 22)	Treatment Option 2022/03/B: HSW incident contingency planning SAR providing agencies and coordinating authorities are encouraged to develop contingency plans for use in the event of a SAR related severe HSW incident. Plans may include media, internal personnel and SAR partner engagement as well as grief & trauma counselling etc.	Nil		The NZSAR HSW committee and to manage and monitor this work.
		SAR person(s) experience mental health trauma during or because of their SAR service and do not receive adequate support.	<ul style="list-style-type: none"> expect significant external pressure / investigation / regulation / over watch following the trigger event. allow SAR people to suffer avoidable mental trauma, be criticised by SAR people and/or publicly for inadequate wellbeing support. 	Rare	Major	(Nov 22)	Treatment Option 2022/03/C: Suitable wellbeing support is available for all SAR people as required. Wellbeing, grief and trauma counselling is the responsibility of persons 'home' agency. All agencies will be expected to retain systems to provide the requisite wellbeing support. Trauma guidance has been developed for adoption and distribution by agencies.	Variable	Ongoing	Variable capability depending on agency. Some capability dependent on provision of FED funding.
		SAR incidents are often complex and dynamic involving people from many organisations, undertaking a range of tasks and under the coordination of persons who may have limited knowledge of conditions where people are working.	The Sector accepts the notion of multiple and overlapping PCBUs. But the sector does not have a common view of how multiple and overlapping PCBUs might be work in practice for notifiable events or for psychosocial and wellbeing support. This confusion and concern impacts upon SAR peoples' willingness to engage in SAR activities and the sector in general.	Certain	Moderate	(Nov 22)	Treatment Option 2022/03/D: Attain advice on overlapping PCBUs duties regarding the Health and Safety at Work Act 2015. NZSAR Secretariat to engage a contractor to provide advice and seek clarity on the responsibilities of the overlapping PCBUs duties regarding the Health and Safety at Work Act 2015 including but not limited to notifiable events and psychosocial risk / wellbeing of SAR responders.		2022/23	Treatment terms of reference being discussed with coordinating authorities and SAR NGOs.

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2022/04	<p>Cohesive and effective SAR Training</p> <p>The competence and capability of SAR individuals is dependent on effective training and assessment. SAR training is largely decentralised and varies significantly. The SAR sector does not learn.</p>	<p>SAR training can be delivered within organisational silos and can differ within organisations. The perspectives of individual organisations have frequently taken precedence over the needs and goals of the wider sector.</p> <p>Continuation or refresher training is often absent allowing skills to degrade over time</p> <p>Search management arrangements and skills can be deficient resulting in inadequate search effectiveness and potentially external investigation and/or criticism.</p> <p>The SAR sector's training is largely conducted within organisational silos and is not united by collectively agreed doctrine.</p> <p>Funding sufficiency and/or volatility (see Risk 2018/02)</p> <p>The Sector is not engaged operationally or culturally with the NZSAR Councils lessons framework</p> <p>Reviews are not conducted and/or recommendations actioned.</p>	<p>Training variances can impact on sector collaboration and degrade inter agency and internal cohesion. Training divergence can lead to incompatible incident management systems, different understanding of language and incompatible expectations, SAR processes and priorities.</p> <p>These factors can contribute to deficient SAR services, inefficiencies and potentially avoidable loss of life.</p> <p>They can also lead to damage to the reputation of the NZ Search and Rescue community. And harm New Zealand's international reputation as a safe destination for adventure tourism.</p> <p>Sector is unable or unwilling to learn from its experiences effectively. Constructive change does not occur. Poor practice continues, positive practice is not reinforced.</p>	Likely	Moderate	(June 22)	<p>Risk treatment 2022/04/A: Suitable individual SAR skill acquisition training is agreed, available, funded and fit for purpose.</p> <p>Sector agreed and fit-for-purpose, fees free SAR skill acquisition training is readily available for SAR people so that they may achieve the relevant SAR competencies at no cost to themselves.</p>	Full	Ongoing	
						(June 22)	<p>Risk treatment 2022/04/B: Collaborative SAR training and exercising</p> <p>The sector is to undertake cooperative and collaborative training, exercising and relationship building. Collective training is encouraged to include HSW components.</p>	Partial	Ongoing	NZSAR supports the conduct of Police District SAREXs and the Raoura Mass Rescue Exercise series. Crawl/walk level exercise planned for 2022/23
						(June)	<p>Treatment Option 2022/04/C: IMTEX. The sector is to undertake independently assessed regional IMTEX's involving multiple agencies to broaden, update and standardise search management practices.</p>	Nil	Ongoing	The Secretariat has prepared several IMT Exercise for use by SAR IMTs. Trained evaluators can also be made available upon request.
						(June 22)	<p>Risk Treatment 2022/04/D: Continuation/Refresher Training</p> <p>Encourage all SAR agencies to plan and undertake continuation or refresher training in order to retain skills and maintain engagement with SAR.</p>	Partial	Sector responsibility	Continuation or refresher training is the responsibility of the SAR sector as an "industry".
						(June 22)	<p>Risk Treatment 2022/04/E: Revalidation</p> <p>Police and other SAR agencies work to develop and implement appropriate skill revalidation systems.</p>	Nil	2022-2023	
						(June 22)	<p>Risk Treatment 2022/04/F: Incident Reviews</p> <p>Independent review of targeted SAROPs or systemic matters. Use the results to inform and update SAR practice, doctrine and training material.</p>	Full	Ongoing	Limited consensus to undertake reviews in the past year.
						(June 22)	<p>Risk Treatment 2022/04/G: Doctrinal Basis</p> <p>Maintain agreed, unified doctrinal documentation for the conduct of SAR in New Zealand.</p>	Full	Ongoing	New Zealand SAR Guidelines are available but need further socialisation across the sector.
						(Sep 22)	<p>Risk treatment 2022/04/H: Quality SAR individual skill acquisition training and collective exercises</p> <p>Conduct good quality, appropriately focussed and well evaluated SAR exercises at all levels of the SAR system. Support the conduct of relevant skill acquisition training is.</p>	Partial	Ongoing	<p>Accessible, good quality individual and collective training will assist to keep volunteers engaged and retained.</p> <p>These activities enhance readiness, reinforce training, and build cohesiveness and morale within the SAR sector.</p>

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2022/05	SAR Information The collection and analysis of search and rescue information is inadequate or insufficiently reliable for future planning.	SAR data collection has historically been fragmented, lacks cohesion and is typically collected to meet the requirements of individual organisations. Properly analysed longitudinal information has been difficult for decision makers to access. Data gaps and omissions render sound analysis difficult. In some instances, excessive detail is being collected. Insufficient focus is placed on the analysis of existing data. Drivers of SAR demand such as activity participation is not well understood. SAR data / information is not easily accessible by other members of NZs SAR community or other interested parties	Without reliable information, NZSAR will be unable to identify strategic changes and opportunities for the SAR community. Effective decision making is compromised by the lack of reliable, analysed data. Information can also be hard to access as it can reside within silos. The sector is significantly limited in its ability to respond or adjust with sufficient speed to identified trends or risks. Without open access to data, opportunities for collaboration across agencies and efficiency gains for NZs SAR sector may be lost	Possible	Moderate	(Dec 20)	Risk treatment 2022/05/A: SAR Data Standard Maintain and promote the use of a collectively agreed SAR data standards for collection, collation and analysis of SAR data.	Full	Ongoing	Core data standard is complete and in operation with SARdonyx. Additional standards may be required for specialised subjects.
						(Dec 20)	Risk treatment 2022/05/B: Data exchange and storage Maintain a secure, single repository for all operational SAR data and make it available for analysis.	Full	Ongoing	SARdonyx implemented. Not yet shared
						(Dec 20)	Risk treatment 2022/05/C: Data analysis Analyse SAR data to identify trends and patterns in SAR events. Such analyses should be used in conjunction with other data to show broader trends and patterns. The resultant products will be made available to decision makers and stakeholders.	underway	2023	Aim to implement as part of the data mart.
						(Dec 20)	Risk treatment 2022/05/D: SAR Operational Analysis Conduct an operational analysis (SAR demand and supply) of SAR need mapped to SAR resources. Assist SAR providing agencies to reshape their organisations to match proven SAR and SAR related needs. (see also 2021/1/F)	2021 Partial	2023	Now being undertaken by the Review
						(Dec 20)	Risk treatment 2022/05/E: SAR Open Data Initiative. Build a public API to expose a curated dataset of SAR data that is safe to release in line with the SARdonyx data sharing MOU.		2023	Aim to implement as part of the data mart.
2022/06	Nationally Significant Search and Rescue Event. Certain search and/or rescue events may overwhelm normal SAR capabilities and trigger the involvement of the National Security System.	Nationally significant SAR events may: require considerable resources to resolve; involve significant numbers of people and/or fatalities; attract substantial domestic and international attention; introduce reputational risks to SAR agencies and New Zealand. New Zealand's SAR sector has very limited capacity to respond to large scale SAR events and we have a very large SAR region with little or no SAR assets able to cover much of the region. Significant numbers of vessels and aircraft with large amounts of passengers transit the NZSRR.	<ul style="list-style-type: none"> Significant numbers of people injured or killed that could have been rescued. Severe reputational damage to SAR agencies. Severe reputational harm to New Zealand as a tourist destination. 	Rare	Severe	(Sep 21)	Treatment option 2022/06/A: Redevelop nationally significant SAR framework. In conjunction with partner agencies, redevelop appropriate nationally significant search and rescue frameworks, policies, plans and procedures. Harmonise with existing system documentation.	Partial	2023	Development of an agreed Nationally Significant SAR framework planned for 2021. MoT Major Transport Incident Framework also under development.
						(Sep 21)	Treatment option 2022/06/B: Conduct nationally significant SAR exercises (mass rescue /abnormal flight, etc). In conjunction with partner agencies, exercise the relevant plans regularly in order to practise, validate and refine them. (see also risk treatment 2021/04/C). Standard exercises should be at the crawl, walk levels with occasional run level exercises as resources allow.	Partial	(2023/2024)	Nationally Significant SAR exercise series is fully funded and on the National Exercise Programme. An exercise lead planner is appointed, planning is underway. The NatSigSAR Exercise series will be conducted in the 2023/2024 year. The Rauora exercise series continues & both exercise series will be integrated.

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2022/07	Personal Safety Inadequate public understanding of the risks taken during recreational activities and the lack of planning to survive an adverse event.	<p>A portion of the public demonstrate a lack of understanding or underestimation of the risks involved with the recreational activity they are undertaking. Due to:</p> <ul style="list-style-type: none"> Increase in the range of recreational activities. Lack of understanding by inbound tourists about New Zealand's conditions and weather. Inadequate coordination and cohesion between the plethora of competing agencies which provide safety advice. Lack of access to information and awareness about the activity, environment and safety implications. Inability to cope once in an uncertain situation or when exposed to recreational hazards. Lack of effective sector monitoring, supervision or surveillance. <p>Some persons in the wider search and rescue region undertake fishing and other activities inadequately prepared and/or with inadequate safety /communications equipment for the conditions.</p>	<ul style="list-style-type: none"> Individuals fail to take adequate precautions and/or responsibility for their own safety. Unacceptable levels of harm to New Zealand residents and foreign tourists. Harm to the reputation of New Zealand as a tourist destination. Unrealistic public expectations of the SAR sector. Long duration but avoidable SAR operations in the wider NZSRR utilising expensive assets. 	Likely	Moderate	(Aug 21)	Risk treatment 2022/07/A: Assist to ensure the public has access to good quality, consistent safety advice. Encourage a broad based, coordinated and appropriately targeted approach to prevention and public safety initiatives. Support and/or conduct research in support of prevention effectiveness and outcomes. Maintain and progressively enhance the NZSAR AdventureSmart website and associated collateral.	Partial	Ongoing	Distress beacon promotion occurred summer 20/21. Will be improved and repeated summer 21/22.
						(Aug 21)	Treatment option 2022/07/B: Recreational safety - provision of consistent information to the media and public. Support interagency linkages, information sharing and activity coordination. Promote standardised safety information based on commonly agreed safety codes. Support collective communications fora to coordinate the provision of agreed, timely and consistent information to the media on personal responsibilities and better preparation when undertaking outdoor recreational activities.			Land Safety code agreed late 2020. Water safety code revision due to be complete 2023
						(Aug 21)	Treatment option 2022/07/C: Implement the Benchmarking Prevention Activities (BePA) report recommendations. Work with agencies to provide information to enable BePA (a derivative of the NZ Inc Recreational Safety Strategy) reporting and analysis in order to benchmark all SAR related prevention activity undertaken in New Zealand, including the impact and funding of the activity	Partial	Ongoing	Assessing and implementing the recommendations is ongoing. BEPA II will be undertaken in 2023.
						(Aug 21)	Treatment option 2022/07/D: Support domestic safety organisations and environmental coordination Support the coordination of SAR prevention efforts of domestic safety information providing agencies. Encourage and support harmonised, collaborative, NZ inc approaches recreational safety strategies and actions including campaigns, research, regulation etc. Provide high level messaging and opportunities to share and promote AdventureSmart. Support prevention agencies to promulgate consistent, high quality and engaging safety messaging.	Partial	Ongoing	Strongly supporting collaborative approaches/systems such as the safer boating, CSRG and land safety forums.
						(Aug 21)	Treatment option 2022/07/E: Support or conduct SAR prevention research. Validate the effectiveness of selected prevention activities and campaigns through independent research. Maintain a measure of the public's expectations of SAR services. Maintain an understanding of how/when/where the public accesses safety information.		2021/22	

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2022/08	SAR Technology The SAR community may not know of or be able to acquire technologies that have the capacity to significantly increase SAR effectiveness.	Technology development and change occurs at a very fast pace. Technologies which might aid or transform SAR are difficult to identify, are hard to fund and are often expensive to bring into service and support through their life cycle.	Non-compatible technologies may hinder our capacity to communicate, collaborate and cooperate. Sector may experience non-optimised or reduced operational effectiveness due to an inability to acquire or access relevant technologies. Sector may experience non-optimised or reduced operational effectiveness due to non-compatible technologies. The sector may be criticised and suffer reputational damage for not utilising the most appropriate and effective technology for an operation.	Likely	Moderate	(Nov 21)	Treatment Option 2022/08/A: SAR Sector Innovation in Technology Strategy Progressively implement the actions proposed by the strategy which are: strengthen cross-sector collaboration, - establish an innovation forum to provide the sector expert advice, implement a process for managing innovative technology ideas and issues, develop criteria to aid innovative technology evaluations, obtain and leverage relevant insights, and facilitate consistent sector experimentation.		2034/24	Strategy has been developed in consultation with the SAR sector.	
		Different SAR agencies might select different, non-compatible SAR technologies.					Treatment Option 2022/08/B: Initiate a SAR Innovation Forum This forum will: provide specialist advice to the SAR sector and enable a collaborative, cross-sector approach to innovative technologies by working through the proposed actions.			2022/2023	The first meeting of the Innovation Forum took place in November 2021.
		Acquisition, maintenance, training for the use of relevant SAR technologies is affected by funding sufficiency and/or volatility (see Risk 2018/02)					Treatment Option 2022/08/C. Support a collective approach to the acquisition of SAR technologies. Facilitate engagement and approaches to coordinate the acquisition, use of and compatibility of high-utility SAR technologies through the SLA process and sector engagement in the Innovation Forum. Develop a SAR sector innovative technology collaboration platform.			Ongoing	The 2020/21 SLA process has promoted better communication and collaboration between agencies. This sector-wide approach will also be facilitated through the Innovation Forum.
							Treatment Option 2022/08/D. Implement the SAR innovation in technology strategy				Initiate a project to stocktake, and identify risks about, infrastructure that is utilised but not owned or managed by SAR agencies.

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2022/09	SAR Expectations Stakeholders and public possess unrealistic expectations of SAR capacity and capabilities	<ul style="list-style-type: none"> A lack of knowledge about SAR sector capabilities and limitations may lead to unwarranted expectations. Regular reporting of successful SAR operations may lead to a false sense of SAR capabilities by the media and significant stakeholders. Alerting technologies encourage risk homeostasis where people take otherwise unwarranted risks in the belief that their technology(ies) will provide them with a safety net. 	<p>In the event of a mass rescue, mass search or a SAR incident at the extremities of the NZSRR, the media, public and senior stakeholders may unduly criticise SAR agencies and/or demand actions by SAR agencies that are beyond our capabilities.</p> <p>Inappropriate SAR sector investment due to a misunderstanding of SAR expectations</p> <p>Members of the public may suffer undue hardship or cause unnecessary cost on the SAR system due to misunderstanding its capabilities and limitations.</p>	Rare	Major	(February 2022)	<p>Treatment Option 2022/09/A: Advise senior stakeholders of SAR Sector capabilities and limitations</p> <p>Provide update briefs to HRB and Ministers regarding SAR capabilities and limitations.</p>	Full	Ongoing	<p>Minister of Transport briefed on SAR capabilities and limitations July 2020.</p> <p>Annual reporting continues</p>
						(February 2022)	<p>Treatment Option 2022/09/B: Advise media stakeholders of SAR Sector capabilities and limitations</p> <p>Distribute the NZSAR annual report to media outlets. RCCNZ and NZ Police undertake targeted SAR media briefing and specifically note SAR sector capabilities and limitations.</p>	Limited	Ongoing	<p>Nature of the modern media makes it difficult to raise their understanding of the SAR sector.</p> <p>Some targeted briefing has occurred. More are needed.</p>
				Likely	Moderate	(February 2022)	<p>Treatment Option 2022/09/C: Undertake a benchmarking survey of SAR expectations</p> <p>Engage with the public on occasions to ascertain what their expectations of SAR are and measure trends in expectations.</p>	Partial	2020 / 21	<p>One survey was completed. An additional took place in March 2022.</p>
				Likely	Moderate	(February 2022)	<p>Treatment Option 2022/09/D: Alerting technologies.</p> <ul style="list-style-type: none"> Provide public information on distress altering technologies. Assist to ensure appropriate operational agreements and procedures are in place for alerting technologies commonly available within the NZSRR 			

Risk #	Risk Description	Reasons or Causes	Consequences	Probability	Impact	Risk Level (Reviewed)	Risk Treatment(s)	Treatment Implementation	Post Treatment Impact	Comments / Examples
2022/10	SAR Demand Changes to the nature of SAR demand.	Change in SAR demand may be caused by shifts to New Zealand's demographic profile, population growth (or shrinkage), urban spread, tourism growth, climate / meteorological / geological change, new or changed recreational pursuits and/or locations. Change may also occur in personal risk appetite and/or preparedness to request SAR assistance. (see also treatment 2020/05/C)	The sector may find itself inadequately prepared and resourced to respond to changes in SAR demand. Resources / capabilities / coordination may not be appropriate nor possess the relevant skills and equipment to effectively respond. Conversely – costly existing capabilities may be excessive to meet a changed SAR demand profile. Changes to SAR capacity can be very costly. Volunteers in Units / Clubs / groups may be resistant to change. The ability of SAR agencies to respond or scale to identify change is limited. The sector has very limited internal capacity to recovery from natural disasters. Sector may have the 'right' resources in the 'wrong' locations. Breadth of role changes requiring different skills and availability.	Likely	Moderate	(September 20)	<p>Treatment Option 2022/10/A. Environmental Scan NZSAR will maintain a clear picture of SAR demand and trends. Integrate this picture with demographic, population, recreation and tourism trend projections prepared by other agencies. Information will be shared as appropriate.</p> <p>Treatment Option 2022/10/B. The sector will work collectively to recognise and then adapt to accepted observed or likely changes and rapidly to sudden or unforeseen changes.</p> <p>Treatment Option 2022/10/C. Develop 'demand change' projects to identify, explore and make change recommendations for SAR organisations.</p> <p>Treatment Option 2022/10/D. NZSAR to work with agencies to monitor changes / expansion to operational functions.</p>	2020	Ongoing	The NZSAR Environmental Scan was updated in 2020 to include information about volunteerism, the effects of climate change and COVID-19. The 2022 update includes information about the Antarctic and wider Pacific regions.
								Partial		Sector has little spare capacity to address identified change needs. Covid-19 crisis showcased rapid, collective adaptation
								Partial	2020 / 23	Coastal Safety and wander / safer walking completed. LSAR undertakes occasional SAR vulnerability analysis by group
								Partial	Ongoing	SAR agencies are often 'on-the-spot' and can attend a broad set of situations such as road crashes and medical emergencies.

Risk Consequence Assessment Categories

The table below is a guide for determining the consequence level (impact of the risk event occurring). Depending on its nature, a risk event may include several columns.

Level of Impact	Consequence Assessment Categories		
	Achievement of goals	Financial Impact	Political / Reputation Impact
Insignificant (1)	It is likely that there will be no impact on NZSAR goals being achieved.	Insignificant financial impact on NZSAR.	Occurrence of the risk event is not visible internally or externally. No explanation required.
Minor (2)	It is likely the goals would still be achievable but with some minor inconvenience	Minor financial impact on NZSAR.	Occurrence of the risk event would not be visible externally. Some explanation/accountability would be required internally.
Moderate (3)	The affected goal(s) would still be achieved but only with significant difficulty.	Moderate financial impact on NZSAR.	It is likely the risk event would be visible to key internal and external stakeholders. Some damage (actual or perceived) to NZSAR's reputation.
Major (4)	The occurrence of the risk event would result in one or more of the goals definitely not being achieved.	Major financial impact on NZSAR.	The risk event would be highly visible to key internal and external stakeholders and the public. Major damage (actual or perceived) to NZSAR's reputation.
Severe (5)	The occurrence of the risk event would result in the majority of NZSAR's strategic goals definitely not being achieved.	Severe financial impact on NZSAR.	The risk event is highly visible nationally and internationally causing irreversible damage to NZSAR's reputation.

Likelihood / Consequences Assessment Guide

			Consequences				
			1	2	3	4	5
			Insignificant	Minor	Moderate	Major	Severe
Likelihood	5	Certain Almost certain to occur in most circumstances (75%+ probability)	Medium (5)	Medium (10)	High (15)	High (20)	High (25)
	4	Likely Likely to occur frequently (50% - 80% probability)	Low (4)	Medium (8)	Medium (12)	High (16)	High (20)
	3	Possible Might Occur at some time (25% - 50% probability)	Low (3)	Low (6)	Medium (9)	Medium (12)	High (15)
	2	Unlikely Could Occur at some time (less than 25% probability)	Low (2)	Low (4)	Low (6)	Medium (8)	Medium (10)
	1	Rare May occur but only in exceptional circumstances	Low (1)	Low (2)	Low (3)	Low (4)	Medium (5)