

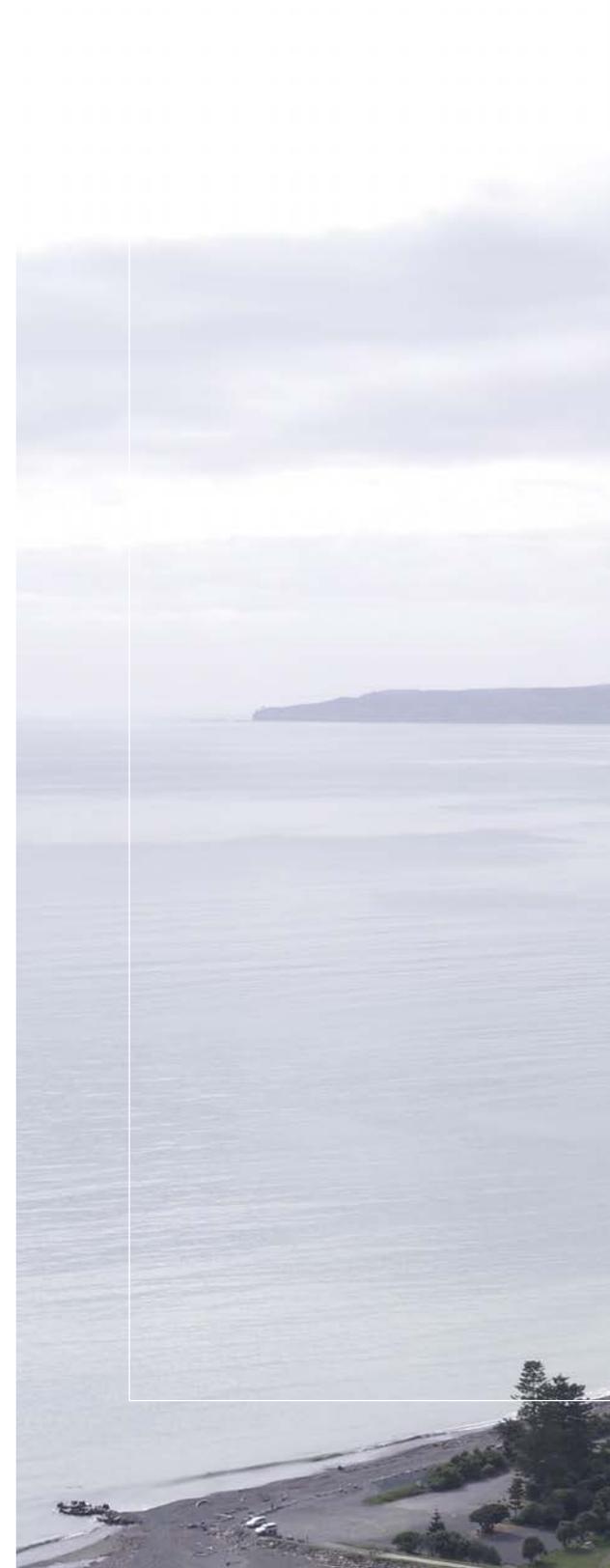
July 2020

Cape Kidnappers

VISITOR EXPERIENCE MANAGEMENT PLAN

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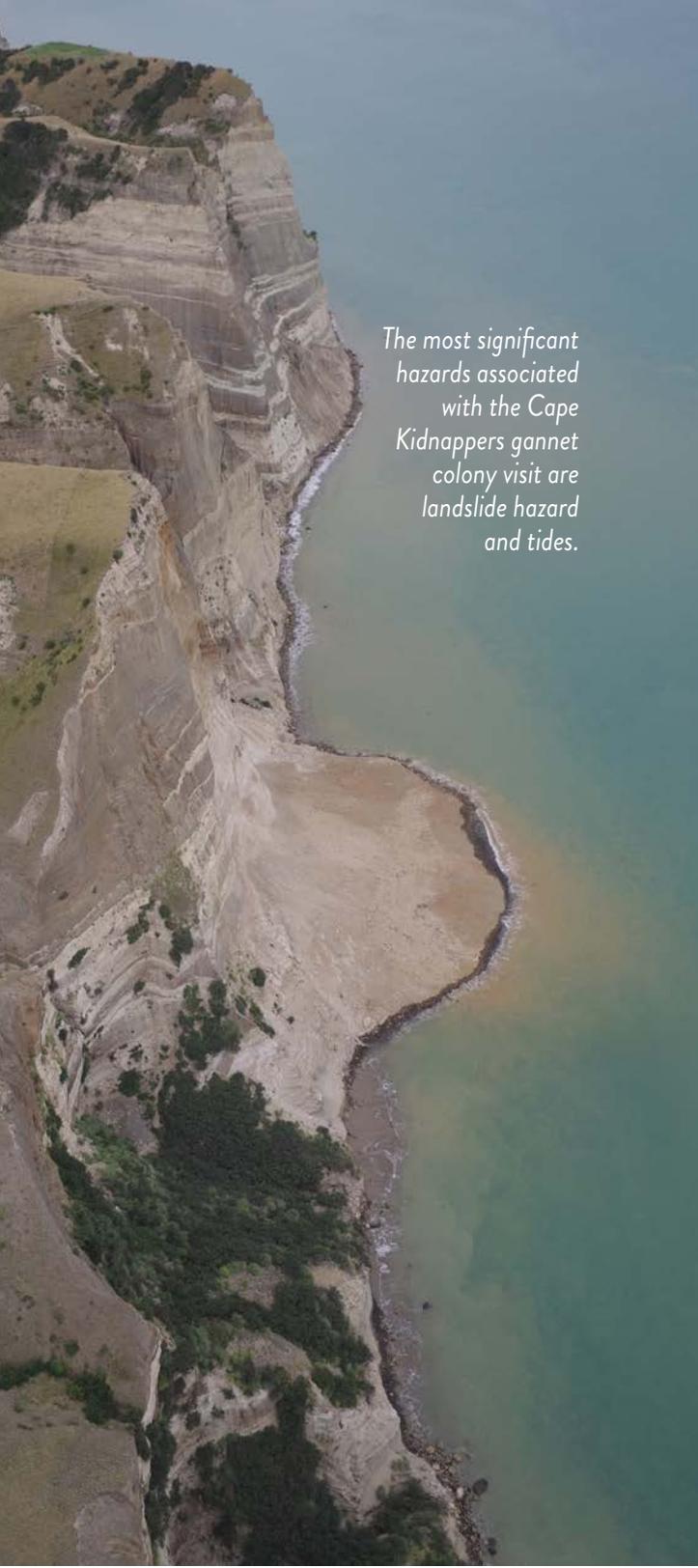
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TE KAUAĒ-A-MĀUI / CAPE KIDNAPPERS

This Plan outlines the management needs for a whole-of-journey experience at Cape Kidnappers.



The most significant hazards associated with the Cape Kidnappers gannet colony visit are landslide hazard and tides.

EXECUTIVE SUMMARY

1. This Experience Management Plan is to guide the actions of the three landowners who have visitor responsibilities for people visiting the Cape Kidnappers gannet colony.
2. This plan provides a framework for managing the visitor experience including hazard management, for the Cape Kidnappers experience where this is accessed via the coastal walk.
3. Management activity under this plan must also be in the context of the significance of Te Kauae-a-Māui /Cape Kidnappers to the hapū of Heretaunga.
4. Cape Kidnappers has been a site of importance for Hawke's Bay tourism, and people will continue to want to visit the Cape and the gannet colony.
5. The values associated with Cape Kidnappers will be communicated in ways that support their protection.
6. The expectation of Hastings District Council (HDC), the Department of Conservation (DOC) and Cape Kidnappers Station is that visitors are well informed about the risks associated with the trip and those risks are well communicated so they can make an informed decision about making a visit to the Cape via the beach or not.
7. Visitors will be provided with the facilities that reflect a Backcountry Adventurer trip, consistent with the high risk known to be presented by the cliffs along the beach and associated landslide and rockfall hazards, which is a change in approach to managing for Day Visitors who have been the predominant visitor group known to make this trip.
8. The landslide hazards on the beach walk from Clifton to the DOC Reserve are considered to be a higher risk than a day visitor group would normally tolerate, and it is not appropriate to encourage low risk-tolerant people to make this trip.
9. The information provided regarding a visit to Cape Kidnappers gannet colony should portray the experience as being suitable for a risk-tolerant Backcountry Adventurer and be understandable as a warning rather than an invitation for the Day Visitor group.
10. Hazard management for the whole-of-journey undertaken by visitors to the Cape Kidnappers gannet colony involves hazard identification across each of the sections of the journey, and applying appropriate risk assessment and response.
11. The most significant hazards associated with the Cape Kidnappers gannet colony visit are landslide hazard and tides.
12. Information will be provided for potential visitors of the significant hazards that exist so they can make their own informed risk decisions.
13. Potential visitors will not be actively encouraged to visit the gannet colony via the beach.
14. This Visitor Experience Management Plan will be reviewed periodically and as more information comes to hand.

LEGISLATIVE CONTEXT

This Experience Management Plan has been prepared for Clifton Beach administered by Hastings District Council, the Cape Kidnappers Gannet Protection Reserve and Cape Kidnappers Nature Reserve, both administered by the Department of Conservation, and the section of the Cape Kidnappers Station where visitors access the main gannet colony.

This document is not prepared under legislative requirement. Relevant legislation, district plans, conservation management strategies and landholder property ownership rights remain the statutory context for all visitor management activity at this location.

Relevant statutory plans that apply:

- Cape Coast Reserves Draft Management Plan, May 2017
- The Council Reserves Strategy
- Reserves Act 1977
- Hawke's Bay Conservation Management Strategy 1999 (under review)
- Cape Kidnappers – Gannet Reserve Te Kauae O Maui Conservation Management Plan 1998⁴

PURPOSE

This Plan outlines the management needs for a whole-of-journey experience at Cape Kidnappers.

This plan outlines the roles and responsibilities of the three land owners and provides a framework for managing the visitor experience including hazard management, for the Cape Kidnappers experience where this is accessed via the coastal walk.

There are three landowners responsible for the whole-of-journey for visitors from the Clifton Beach carpark to the gannet colony. The management approach taken by any one of those landowners has implications for the visitor experience. Those visitors typically expect to experience the setting and the attractions within it, and to have a safe journey. The management approach taken by each landowner can be joined up to promote safety in what is an inherently hazardous coastal environment, supporting those people to make the most appropriate decisions about their intended journey.

Advice to visitors should also promote appropriate behaviour given the significance of the Cape to tangata whenua and associated archaeological sites.

¹ Cape Coast Reserves Draft Management Plan, <https://www.hastingsdc.govt.nz/assets/Document-Library/Reserve-Management-Plans/Grouped-reserves-plans/Cape-Coast-RMPlan.pdf>

² Hastings District Council Reserves Strategy 2006, <https://www.hastingsdc.govt.nz/assets/Document-Library/Strategies/Reserves-Strategy/hastings-reserves-strategy-2006.pdf>

³ Hawke's Bay Conservation management Strategy 1999, <https://www.doc.govt.nz/about-us/our-policies-and-plans/statutory-plans/statutory-plan-publications/conservation-management-strategies/hawkes-bay/>

⁴ Cape Kidnappers – Gannet Reserve Te Kauae O Maui Conservation Management Plan 1998 <https://www.doc.govt.nz/about-us/our-policies-and-plans/statutory-plans/statutory-plan-publications/conservation-management-plans/cape-kidnappers-gannet-reserve-te-kauae-o-maui-conservation-management-plan/>

PRINCIPLES FOR VISITOR MANAGEMENT TO CAPE KIDNAPPERS GANNET COLONY

- *Natural and cultural values will be protected.*
- *Where possible each landowner/administrator will gain common agreement of standards relating to hazard management, information and maintenance of the experience while acknowledging their own legislation, systems and processes.*
- *This Plan does not derogate any statutory or other legislative obligations of the landowner/administrator for their section of the experience.*
- *Information and safety messages on the visitor experience will be agreed and conveyed by each of the landowners/administrators through their own procedures, and presented collectively where this can be achieved.*

THE VALUES OF CAPE KIDNAPPERS

NATURAL VALUES

Te Kauae-a-Māui /Cape Kidnappers is home to a gannet colony comprised of several nesting areas at the tip of the cape. Numbers have steadily increased to 6,500 pairs, which makes it the largest and most accessible mainland colony in the world. There are spectacular geological cliff formations on the coast to the Cape. Cape Sanctuary, commenced in 2007, is the largest privately owned and funded wildlife restoration project of its kind in New Zealand. The sanctuary is situated on three properties on the Cape Kidnappers peninsula; Cape Kidnappers Station owned by Julian Robertson, part of Haupouri Station owned by the Hansen family and Ocean Beach Wilderness Property owned by Andy and Liz Lowe. The sanctuary has had a number of native New Zealand land and sea bird species successfully introduced.

CULTURAL VALUES

The Cape has immense cultural and historical significance to the hapū of Heretaunga – the tangata whenua (people of the land) holding mana whenua (authority over the land) in and around Te Kauae-a-Māui /Cape Kidnappers. There are kāinga (dwelling) and urupā (burial) sites on the Cape – they are important to Māori and protected by the Heritage New Zealand Pouhere Taonga Act 2014.

COMMUNITY VALUES

Hawke's Bay residents, and the coastal settlements of Haumoana, Te Awanga and Clifton in particular, have a strong association with Cape Kidnappers; the white cliffs above the seascape, the seasonal arrival and departure of the gannets from their nesting colonies, and the tide controlled beach access through to Black Reef and beyond. The community associate with the landscape and are regular users of the beach, for excursions and for fishing.

UNDERSTANDING THE VISITOR EXPERIENCE

Wider site context

Hawke's Bay is most well known as a domestic tourist region, sunshine, warm weather, vineyards, and art deco.

Hawke's Bay is not a main international tourist destination, nor is it a significant destination for domestic tourist travellers. It is, however, a place attracting reasonably large numbers of people with a range of interests, expectations and abilities. There have been approximately 70,000 guest nights in tourist accommodation each month in Hawke's Bay, and 310,000 international bednights in 2018/19 and 930,343 domestic bednights in this period.

Cruise ship activity has been growing in recent years, and Napier had 82 arrivals planned for 2019/20, and a similar number for the following years. Assuming a resurgence in this activity in the next few years post-Covid19, this will bring an additional 146,000 passengers and 60,000 crew to the region, many of whom are likely to join in a part day activity while in port.

A main landscape attraction is Cape Kidnappers with its distinctive peninsula, and the gannet colony situated at the end of the peninsula. This is the only accessible mainland colony of gannets in New Zealand. Muriwai near Auckland city also provides views over a gannet colony, but not access to within metres as at Cape Kidnappers. Cape Kidnappers gannet colony has been synonymous with Hawke's Bay for many years. Guided tours have been run by Gannet Beach Adventures since 1955. The beach along the northern edge of the peninsula has long been used by local communities for access to the coast and fishing grounds.

⁴See Stats NZ Commercial Accommodation Monitor <https://www.mbie.govt.nz/dmsdocument/4005-commercial-accommodation-monitor-august-2019-hawkes-bay-pdf>

Local site context

The attraction of Cape Kidnappers gannet colony is heavily dependent on the nesting season which occurs between mid-September and mid-December.

The first chicks hatch around the beginning of November and the last chicks migrate to Australia in May, so this period is the best time to encounter gannets. Visitors make the journey along the beach year-round.

The trip to the gannets along the coast involves travelling (either walking or by vehicle) 7.5km along the beach below eroding cliffs. The towering cliffs (up to 150m high) are made up of sandstone, conglomerate, mudstone, river gravel, pumice and silt, as well as glimpses of petrified wood and lignite.

The Cape's coast, cliffs and dunes provide habitats for native vegetation and wildlife. The track sits within the footprint of Cape to City – a collaborative, landscape scale restoration project that is working to ensure our native species thrive where we live, work and play.

The walk then climbs from the beach through coastal scrub (which is a DOC reserve) to open farmland, where a farm track leads to the main gannet colony. A smaller colony is located beside the track as it leaves the beach.

The trip suits people capable of walking 15 – 20km a day, and the track standard where there is formed track (i.e. not along the beach) is to a Backcountry Adventurer standard (Tramping Track). A commercial transport operator takes trailers pulled by tractors along the beach, enabling people without the fitness or inclination, to make a much less strenuous visit as far as the track up the cliff. The tractor trip itself is considered by many to be a memorable experience.

The beach access is subject to the influences of coastal erosion which is ongoing. This erosion formed the cliffs that are a dramatic backdrop to the visitor journey, but also, in combination with the wind, rain and earthquakes result in periodic landslips as portions of the structurally weak cliffs collapse onto the beach.



EXPERIENCE MANAGEMENT INTENTIONS

The expectation of HDC, DOC and Cape Kidnappers Station is that visitors can make their visit to the Cape assuming they understand and accept the high level of risk posed by the eroding cliffs.

Visitor safety and enjoyment will be a result of the way that the land managers manage access and information, and how visitors respond to the information they are provided and behave during their visit.

There are risks associated with all aspects of human endeavour. There is a general expectation that risks that can be controlled will be controlled (through statute, best practice, good design and raising awareness). For the individual there remain choices they can make in situations where there are hazards and risk, such as avoidance (not being there), isolation (keep clear of the site hazards) and acceptance (judging that the risk is tolerable).

Visitor enjoyment is similarly a combination of the setting (natural, man-made and social) and the visitor attitude and reaction to that setting.

Facility provision

Visitors will be provided with the facilities that reflect a Backcountry Adventurer trip. While Day Visitors have been the predominant visitor group known to make this trip, this is no longer considered appropriate, as there will be many of this visitor group who are not high risk takers. The standards for track and associated structures are provided in the New Zealand handbook; Tracks and Outdoor Visitor Structures SNZ HB 8630:2004. In this case, where tracks are provided for visitors, they will be expected to meet the Tramping Track standard.

See <https://hutsandtracks.org.nz/wp-content/uploads/2014/09/SNZ-Tracks-and-Outdoor-Visitor-Structures-Handbook.pdf>

The visitor journey to the Cape Kidnappers gannet colony via the beach will be supported by the following facilities and infrastructure.

CLIFTON BEACH

The road end carpark

To facilitate parking for private cars.

Information provided about the journey to Cape Kidnappers gannet colony, including clear messaging about the risk of landslides and rockfalls.

Clifton Beach Campground

Car parking in the campground is provided at the discretion of the campground manager.

Repeat information about the journey to Cape Kidnappers gannet colony at the start of the beach walk focussed on risk management.

The beach walk

No formal track is maintained along the beach walk, as the beach is predominantly inundated every high tide.

At the eastern end of the beach past Black Reef, temporary barriers may be used to define the intended walking route to keep visitors out of the wahi tapu sites known in this area.

Tramping tracks generally follow the lie of the land and are commonly not formed. Visitors accept a degree of risk and discomfort. There are specifications for what constitutes

a Tramping Track in SNZ HB 8630:2004, section 2.5. The later section of this plan on hazard management describes in more detail the visitor group categories and risk management concepts.

The beach access is considered to be the equivalent of a Tramping Track because there is no formed track to manage, with the access being in the tidal zone, and is thus formed of beach gavel and sand, with occasional rock piles to navigate, where previous landslides or rockfalls have occurred.

The hazards associated with the trip to Cape Kidnappers should align with the expectations of the Backcountry Adventurer visitor group, and managed either through appropriate service standards for the infrastructure assets, and/or through the information provided to visitors. Information should be understandable to the Day Visitors group as these people also need to be aware of the risk associated with the trip.

The landslide hazards of the coast walk from Clifton to the DOC Reserve are considered to be much greater than would be expected for a Day Visitor group, and more associated with people who seek experiences of a more rugged nature.

Many hazards in these more rugged settings are considered tolerable for those people because of their higher level of experience and skill at recognising and responding to hazards, and because the levels of use at such places are typically relatively low.

From the beach through the DOC reserve

DOC will provide the following facilities:

A Tramping Track will be maintained to the top of the escarpment.

Signs will advise visitors about the journey onwards to the main gannet colony

Signs will advise visitors about the journey along the beach back to the Clifton Beach carpark and the associated landslide and tide hazards.

Toilet facilities will be provided because of the length of time taken for the whole trip to the colony and back (5-6 hours on average). The current shelter is now subject to advancing erosion at its current site so will need to be removed soon before it is lost to the sea. The potential that visitors may need to wait for the next low tide (if they misjudge their return trip) or there is an extreme weather event may justify a new shelter being provided.

The top of the escarpment to the gannet colony

DOC will maintain a track through the Cape Kidnappers Station farm to the main gannet colony.

DOC will provide barriers and signage to inform visitors about the gannet colony and to guide appropriate behaviour around the nesting area.

DOC will provide information at the gannet colony to remind visitors about the time required for a trip along the beach back to Clifton, and the potential risk of rockfall.

The provision of a basic public toilet at the top of the escarpment will be explored, depending on need, and at a site that does not compromise the protection of the gannets.

PROMOTION AND MARKETING

There are values associated with Cape Kidnappers (cultural, natural, historic, economic) that should influence the nature of promotion and interpretation information being provided.

Use of the beach by locals and the journey to the Cape Kidnappers gannet colony takes the visitors through a setting that has the risk of landslide hazards which are of a nature associated with the Backcountry Adventurer visitor group, rather than Day Visitors.

The information provided regarding a visit to Cape Kidnappers gannet colony should be able to be understood by most visitors.

Some visitors to Cape Kidnappers are international visitors who do not speak or read English.

Providing information for visitors

The following factors should be used in developing and presenting information about a visit to Cape kidnappers.

- The values associated with Cape Kidnappers will be communicated in ways that support their protection.
- The values associated with Cape Kidnappers will be communicated in ways that limit the expectation that taking a trip to the colony via the beach is the most desirable interaction people can have with these values.
- Potential visitors will not be actively encouraged to travel independently to the gannet colony via the beach.
- People can be expected to want information about visiting Cape Kidnappers, and relevant information for completing a safe journey will be provided, which includes the options of an overland trip with Gannet Safaris Overland or beach trip with Gannet Beach Adventures, which passes through the landslide hazard zone.
- Information will be provided for locals and potential visitors of the significant hazards that exist so they can make their own informed risk decisions.
- Information about the critical hazards should be presented so as to have immediate impact – it will be noticed.
- Messaging should be provided at critical decision points.
- Messaging should be consistent across the journey about a visit to Clifton Beach coast and Cape Kidnappers and associated values and risks but will vary depending on the location of the messaging.
- Key messages should be communicated in ways that are most likely to reach the main user groups. This will involve at site and other media.
- The primary means of communicating the hazards at a site will be the standard sign symbols, supported by an English explanation about the hazard, the risk the hazard presents, the likely consequences being impacted, and the action the visitor should take knowing this.
- Other languages may be used to reach visitors not familiar with English if it is clear a significant number of visitors fit into a specific language class and these people are not going to be able to read and understand English.
- Signage will reflect the joint management approach being taken.
- The effectiveness of the messages and signage should be tested for meeting the objectives of making visitors aware of significant hazards and influencing people's behaviour.

RISK MANAGEMENT AT CAPE KIDNAPPERS

Hazard management for the whole-of-journey undertaken by visitors to the Cape Kidnappers gannet colony involves hazard identification across each of the sections of the journey, and applying appropriate risk assessment and response.

The DOC visitor risk management (VRM) policy and process will inform this hazard identification and response planning.

Principles of visitor risk management

The following principles are used by DOC to guide its visitor risk management:

1. The range of outdoor recreation experiences available to visitors will be preserved wherever possible.
2. DOC is responsible for assessing the risks at visitor destinations and providing information to inform visitors of those risks.
3. All practicable steps will be taken to ensure DOC facilities are appropriate for the predominant visitor group and/or activity, and meet all statutory obligations.
4. The level of skill and competence required for visitors to manage risks will be accurately represented.
5. Visitors are responsible for their decisions about the risks they take and for any others under their care and responsibility.
6. Visitors are responsible for providing the skills, competence and equipment they require to effectively manage hazards.
7. DOC will prioritise management at popular sites which have a high level of risk and a high volume of low skilled visitors.
8. DOC is responsible for working with partners to continually improve visitor risk management practices.



VISITOR GROUPS AND RISK MANAGEMENT

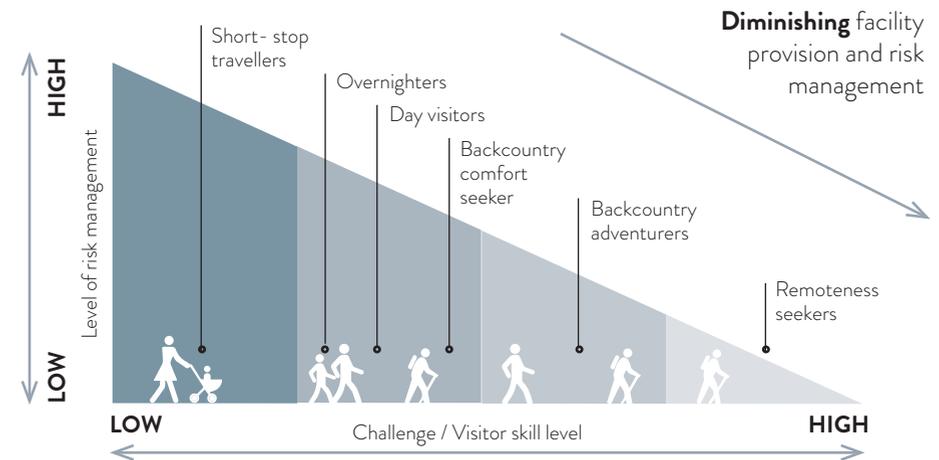
Visitor groups are a market segmentation of all possible visitors.

This segmentation uses levels of skill and personal experience/ familiarity, and aspects of the visit duration and difficulty to differentiate visitors into distinct groups.

This segmentation is one of many ways that the population can be divided.

The visitor group approach has proven useful in determining the type and standard of facility provision for individual destinations, which is closely related to managing the risks people encounter in the outdoors.

We manage visitor safety in accordance with legislation, statutory plans, policies and management procedures.



Hazard identification and risk management can involve infrastructure, information and regulation. In the case of Cape Kidnappers, risk management is referred to in the previous sections on facility provision and promotion and marketing, focussed on the main hazards of landslide and tide.

MANAGING RISK ACROSS THE CAPE KIDNAPPERS JOURNEY

What follows are descriptions of each section of the Cape Kidnappers visitor journey, the hazards associated with those sections, appropriate management responses, and accountabilities for the various responses.

The journey to the gannet colony is comprised of three distinct sections, coinciding with three different land managers.

1. The carpark to the end of the beach section, managed by Hastings District Council.
2. From the beach up to the headland, through the DOC Cape Kidnappers Gannet Protection Reserve and Cape Kidnappers Nature Reserve.
3. The access from the DOC Reserve to the main gannet colony on the headland, across private land (Cape Kidnappers Station).

The specific detail of hazard identification and risk management response will be managed by the relevant landowners.

- HDC present this information in an Operations Manual: Clifton Beach – Landslide Hazard (Attached as Appendix A)
- DOC manages this information in its Visitor Risk Management Tool.



1. THE CARPARK TO THE END OF THE BEACH SECTION, MANAGED BY HASTINGS DISTRICT COUNCIL.

Hastings District Council have developed an Operations Manual: Clifton Beach – Landslide Hazard.

Significant site hazards covered by the plan are:

1. Landslide hazards

- The cliffs above the beach are continually eroded by tide and weather. Periodically landslides occur of varying scales, with some being significant (January 2019).
- Information provided on websites and at sites alerts visitors to this hazard and it becomes their choice whether to proceed or not, and if they do, not to dally when crossing the beach.

2. Tides

- Beach access is dependent on tides, being generally accessible approximately two hours either side of low tide.
- The information boards currently warn people about being aware of the tides

3. Vehicles on the beach

- Some public access is undertaken using all-terrain vehicles (4x4, SUV), which present a potential risk to pedestrians and other drivers.

4. Carpark

- Carparks pose a potential hazard of vehicles causing injury to others using the carpark.
- Information provided at the carpark can encourage drivers to be careful of others on site.

Roles

Planning safety messaging: HDC and DOC

Managing visitor risk along the beach (as per the HDC Operations Manual and any other hazard management): HDC lead.

Monitoring the effectiveness of sign messaging:

Action	Who is responsible
Design of evaluation approach	DOC
Monitoring activity	DOC and HDC

2. FROM THE BEACH UP TO THE HEADLAND, THROUGH THE DOC CAPE KIDNAPPERS GANNET PROTECTION RESERVE AND CAPE KIDNAPPERS NATURE RESERVE.

Site hazards likely to be associated with the access through the DOC reserve are:

1. **Significant fall on the track section above the current visitor shelter where the track is close to a drop-off.**
2. **Rockfall on the track section near the top of the escarpment.**
3. **Lahar resulting from a dam breach of stock dams above the visitor track**
4. **Slips/ trips/ falls – uneven surface.**

Hazard management

Public access track

- DOC asset management inspection procedures should identify any issues where the track is not to standard, including if there is a need for barriers.
- The maintenance notifications and scheduling of work should limit the time when the track is not to standard.
- Urgent capital IBC process can be used to ensure rapid response where the track standard is presenting an unacceptable risk.
- Information should clearly explain the track standard that visitors will encounter.

Stock dam breaches

- There are two stock dams situated higher up the catchment leading down to the culvert the visitor track passes over.
- There is no established practice in DOC for determining the nature of stock dam hazards to visitors.
- The assumption is determining the risk of the dam breach hazard is that dams that have been in place for some years will have a low likelihood of breaching unless there is an extraordinary event (eg. a strong earthquake or extreme torrential rain).
- Events such as a strong earthquake or strong torrential rain will be the same triggers as used by HDC for considering temporary closure of the beach access, or increased hazard warning for people wanting to start the beach journey.
- DOC will coordinate with HDC in such circumstances to change advice to visitors about access and risk, and to check for resulting rockfalls or dam breaches.

Environmental hazard management and reputational risk

- Visitors on a day trip are going to need access to a toilet, or there will be fouling near the track and on the beach.
- The existing toilet needs to be decommissioned and alternative toilets made available back from the ongoing coastal erosion.

Roles

Action	Who is responsible
Planning safety messaging	DOC and HDC
Managing visitor risk on the DOC reserve	DOC

3. THE ACCESS FROM THE DOC RESERVE TO THE MAIN GANNET COLONY ON THE HEADLAND, ACROSS PRIVATE LAND (CAPE KIDNAPPERS STATION).

Site hazards likely to be associated with the access to the private land are:

- Slips/ trips/ falls – uneven surface

Environmental hazard management

- Health hazards to people from the breeding colony.
- Providing visual barriers and signs will keep visitors from entering the colony, which is needed to protect the birds anyway.

Roles

Action	Who is responsible
Planning safety messaging	DOC and HDC
Managing visitor risk on the private land	DOC and HDC to support the landowner



December 2019 v1.2

Clifton Beach - Landslide Hazard

OPERATIONS MANUAL



Department of
Conservation
Te Papa Atawhai

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Approved By: Nigel Bickle, Chief Executive

Revision Schedule

Rev No.	Date	Description	Signature or Typed Name (documentation on file)			
			Prepared by			
A	11/04/19	Draft for comment	MS			
B	18/04/19	Updated draft	MS			
C	23/04/19	Draft for Review with HDC Style	CL			
D	24/04/19	Final	DB			
E	2/07/19	Version 1.1	DB			
F	16/12/19	Version 1.2	DB, RS, SS			

GLOSSARY

Backshore	The area between the Mean High Water Spring and the base of the cliffs. At the site, a backshore is commonly not present and where it is, is private property.	Landslide event	A landslide has occurred but did not result in an emergency or incident.
Beach	In this context, encompassing both the 'foreshore' and the 'backshore' (where present).	Landslide emergency	A landslide has occurred and has directly impacted a beach user (s).
Beach users	People who access the beach. Key user groups are locals, tourists and those on organised trips with commercial tour operators.	Landslide incident	A landslide has occurred and resulted in a near miss with a beach user (s).
Beach closure	A temporary road closure notice under s342 and the tenth schedule of the Local Government Act 1974.	Landslide inventory	A database of all recorded landslides, including those which resulted in incidents and emergencies.
Beach re-opening	Removal of a temporary road closure notice under s342 and the tenth schedule of the Local Government Act 1974.	Landslide record	An individual landslide within the landslide inventory.
Foreshore	The area between the Mean low Water Spring and the Mean High Water Spring. At the site, this is the 'legal road' along which beach access occurs.	Risk owner	In this context, Hastings District Council, as the beach is considered a legal road and within their district.
Imminent failure	(Potential emergency) A landslide which may impact a beach user is underway, as assessed by the technical advisor.	Rockfall	A very rapid to extremely rapid landslide in which material is detached from a steep slope and descends by falling, bouncing, rolling or sliding. Usually the fall of individual or several rock blocks, where there is little interaction between the individual blocks. It is a continuum however and can include falls of many thousands of blocks.
Kaitiaki	A Maori term for the concept of guardianship. In this context, a person located at Stanley's Point at key times, to provide information and advice to potential beach users.	Rockfall source area	The location on the cliffs from which rockfalls may or have originated.
Landslide	The movement of a mass of rock soil down a slope under the effects of gravity. Has the potential to harm beach users in the event of impact.	Rockfall deposit	The deposited material from a rockfall, usually located on the cliffs or the beach. The deposit will be subject to further weathering and erosion. It can remobilise as other landslide mechanisms.
Landslide cause	Factors which make a slope vulnerable to landsliding (i.e. predispose). There can be one or several causes. The causes can either be internal to the landslide or external factors.	'Site'	The 'beach' between Stanley Point (the Clifton Motor Camp) and Sign Rock.
Landslide trigger	Commonly defined as a single event that initiated the movement, typically an external stimulus, which causes an immediate or near-immediate response.	Site manager	In this context, Hastings District Council, as the beach is considered a legal road and within their district.
		Technical advisor	A geotechnical professional who is suitably qualified and experienced, provides advice to the site owner.



ABBREVIATIONS

CKL	Cape Kidnappers Landslide
DOC	Department of Conservation
EAP	Emergency Action Plan
GBA	Gannet Beach Adventures
HBRC	Hawke's Bay Regional Council
HDC	Hastings District Council
JSA	Job Safety Analysis
MLWS	Mean low water spring
MHWS	Mean high water spring
QRA	Quantitative Risk Assessment
SWMS	Safe Work Method Statement
UAV	Unmanned Aerial Vehicle

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INTRODUCTION

Background

This Operations Manual has been prepared for Clifton Beach, Hawke's Bay. The purpose of this Operations Manual is to formalise Hastings District Council (HDC) risk management of landslide hazard to beach users.

The key objective of the risk management is to reduce the risk associated with landslide hazard to beach users. This Operations Manual describes the practices, procedures, controls and reporting processes to be applied. It has been prepared for those responsible for its implementation, either partly or wholly. There has been no previous Operations Manual for Clifton Beach.

This Operations Manual has been prepared on a conservative basis in that not all of these measures are necessary, but represent the range of options available to reduce risk.

This Operations Manual should be read in conjunction with the Cape Kidnappers Visitor

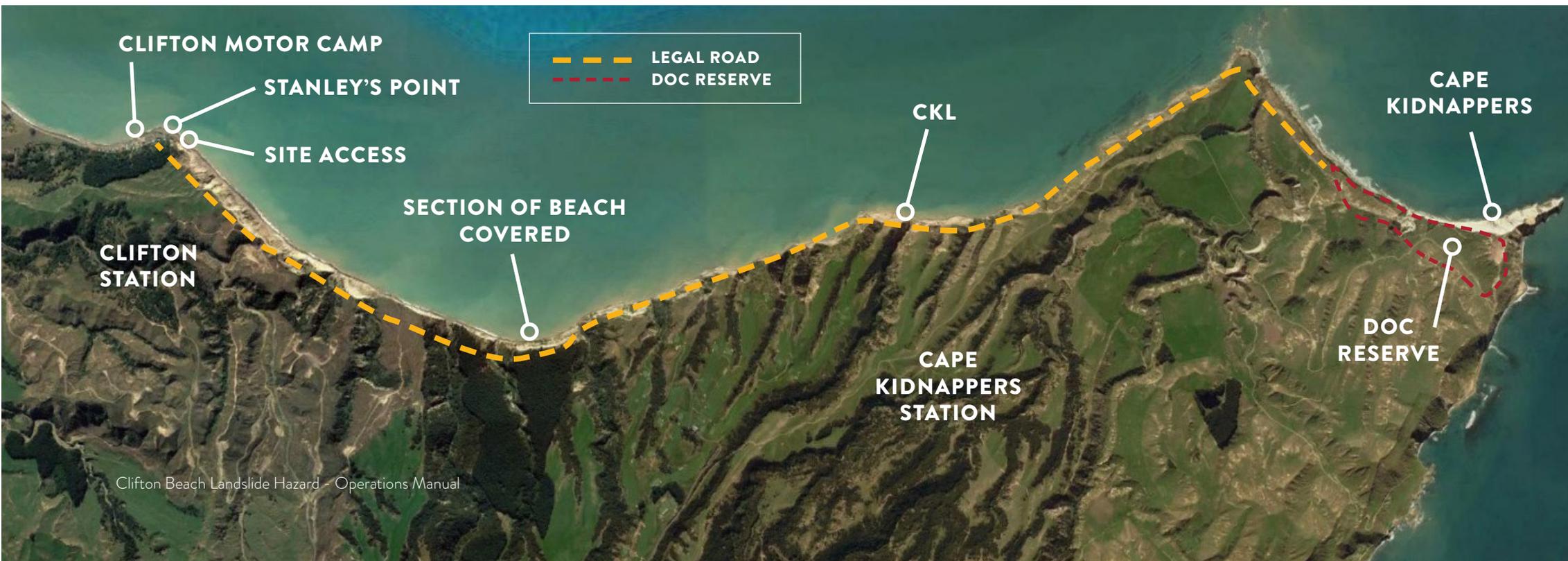
Experience Plan, jointly prepared by HDC, DOC and Cape Kidnappers Station.

This Operations Manual is a 'live' document. It should be reviewed and updated (if required) on a regular basis.

Site Extent

The section of Clifton Beach covered by this Operations Manual is that from the Clifton Motor Camp (Stanley's Point) to the edge of the Department of Conservation (DOC) and at Cape Kidnappers (refer Figure 1). This section of beach is considered a legal road and is within the district of the HDC. The legal road extends from the Mean Low Water Spring (MLWS) to the Mean High Water Spring (MHWS), the area known as the 'foreshore' (refer Figure 2 and Figure 3 over page).

Figure 1: General location plan



Beach Users

The key beach user groups are as follows:

- General public:
 - Locals.
 - Tourists – Cape Kidnappers Route, administered by the Department of Conservation (DOC). Visitor numbers are not reliably known, around 15,000 people per annum (lower bound) and increasing.
- Guided public – Gannet Beach Adventures. Around 10,000 people per annum.
- Workers – employees of Gannet Beach Adventures.

Figure 2: Definitions of tidal terms

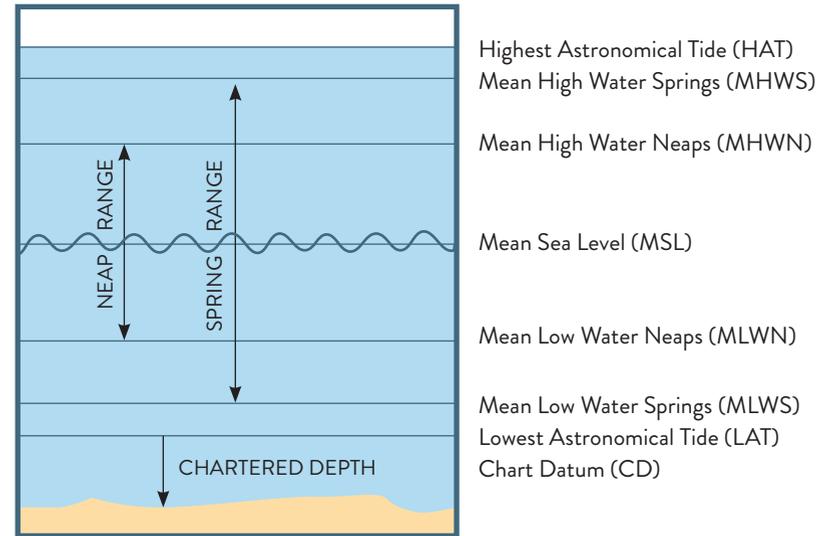
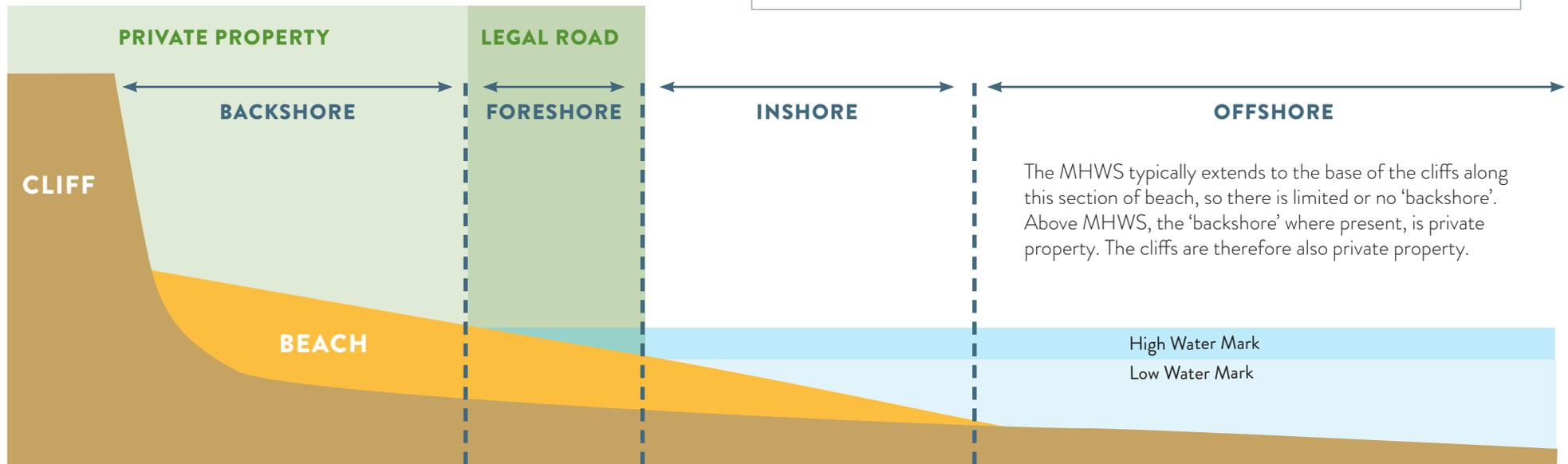


Figure 3: Coastal zones



SITE ACCESS CONSIDERATIONS

Key site access considerations relevant to this Operations Manual are:

- **Beach users access the site from Stanley Point as a return trip** (Figure 1). This is the primary means of access for HDC staff and subcontractors.
- Additional site access is available via Cape Kidnappers, although this is subject to landowner approval and access around Black Reef for vehicles is not always possible (even at low tide).
- **Landslide hazard exists along the entire stretch of beach**, although the risk varies at different locations due to site characteristics.
- **The site environmental conditions are changeable and not controlled**, they need to be considered each time the site is to be accessed. Weather conditions are available at <https://www.metservice.com/towns-cities/hastings>.
- Beach access is dependent on tides, being generally accessible approximately two hours either side of low tide. Tide times need to be considered each time the site is accessed and are available at: <http://m.metservice.com/marine/tides/cape-kidnappers>.
- **Beach conditions are changeable due to tides and other coastal processes**. Although generally accessible via 4WD vehicle (or similar), vehicle access is not always feasible. Current beach conditions are best advised by Gannet Beach Adventures (GBA).
- **All HDC staff and subcontractors must adhere to the site Health & Safety Plan.**

Applicability

This Operations Manual is applicable to the ongoing management of Clifton Beach to Cape Kidnappers

Exclusions

Landsliding and sea state are the only hazards for which the risk management is implemented. Other coastal hazards are not covered by the landslide risk management.

No other 'elements at risk' are considered by the risk management, such as private property. People on private property are also not considered by the landslide risk management.

The DOC land at Cape Kidnappers is not included, but will be managed in a consistent manner by DOC under the Visitor Experience Management Plan.

CONTACTS, ROLES AND RESPONSIBILITIES

Key Contacts

Key contacts, roles and responsibilities relevant to this Operations Manual are summarised in Table 1 below. The table will need to be updated as required.

Table 1: Key contacts, roles and responsibilities

CATEGORY	WHO	RESPONSIBILITIES
RISK OWNER	Hastings District Council	Risk owner
SITE MANAGER	Hastings District Council	Site management
TECHNICAL ADVISOR	Stantec New Zealand	Monitoring. Technical advice to HDC as required.
EMERGENCY RESPONSE	New Zealand Police	First response. Emergency actions.
	Ambulance	First response. Emergency actions.
	Fire Emergency New Zealand	First response. Emergency actions.
	HDC Incident Controller	Emergency planning coordination and management.
SIGNAGE CONTRACTORS	Downer	Signage and VMS contractor.

Other Stakeholders

Key contacts for relevant stakeholders are summarised in Table 2. The table will need to be updated as required.

Table 2: Key contacts for other stakeholders and landowners

CATEGORY	WHO	RELEVANCE
KEY STAKEHOLDERS	Department of Conservation	Administer land at Cape Kidnappers. Access from the beach to the plateau gannet colony via DOC track
	Gannet Beach Adventures	Commercial tourism operator. Access the site as part of their guided trips. Access site via tractor and trailer. DOC concession holder.
	Gannet Bikes	Commercial tourism operator. Hire bikes for self-guided trips at the site.
	Clifton Motor Camp	Land owner at Stanley Point. Commercial camp ground. Entry/exit to beach.
	Hygge (Clifton Café)	Café located at Clifton.
	Hawke's Bay Regional Council	Regional authority. Geohazard and coastal processes – investigation and assessment.

Other Stakeholders

Key contacts for relevant stakeholders are summarised in Table 2. The table will need to be updated as required.

Table 2: Key contacts for other stakeholders and landowners

CATEGORY	WHO	RELEVANCE
KEY STAKEHOLDERS	Tourism Hawke's Bay	Regional tourism organisation.
	Local iwi	Cultural and heritage values.
	Gannet Safaris Overland	Commercial tourism operator. Run trips to Cape Kidnappers via Clifton and Cape Kidnappers Stations. Do not access beach.
NEIGHBOURING LANDOWNERS	Cape Kidnappers Station	Landowner behind the beach. Access required via their property for overland route to cliff tops, Black Reef and Cape Kidnappers.
	Clifton Station	Landowner behind the beach. Access required via their property for overland route to cliff tops, Black Reef and Cape Kidnappers.

PROCEDURAL RISK MANAGEMENT

HDC Staff / Contractor Safety Plan

The HDC staff / contractor safety analysis is attached as Appendix 1.

Key site hazards covered by the plan include:

- Landslides.
- Tides.
- Other site environmental conditions – sun, wind, wet weather etc.
- Difficult site access – beach conditions etc.
- Other beach vehicles.
- Slips, trips and falls.

All HDC personnel, sub-consultants and subcontractors are required to review the safety plan and undertake their work in accordance with the requirements of the safety plan at all times. All HDC subconsultants and subcontractors are to submit their individual H&S plan, with associated Safe Work Method Statements (SWMS) or Job Safety Analysis (JSA), to HDC prior to accessing site.

If any temporary beach closure occurs (refer following Section), do not access the site. Approval is required from the HDC Risk Owner at these times to access the site.

There are special requirements for accessing private property. Access to private property is to be on an as agreed basis with the HDC risk owner.

Kaitiaki

Kaitiaki may be deployed as a support service to the other control measures to achieve greater visitor awareness of the hazards present along Clifton Beach to Cape Kidnappers. The service would normally be provided 2 hrs either side of low tide, where low tide occurs during daylight hours when deemed necessary by the HDC risk owner. Kaitiaki are to be stationed at Stanley's Point when they are required. The use of Kaitiaki will be reviewed on an ongoing basis.

The key responsibilities of the Kaitiaki are:

- Communicate status of the beach access to visitors.
- Answer any questions beach users may have to inform them in their decision to access the beach.
- Completion of landslide records based upon information from beach users.
- Completion of beach user records.
- Liaison with the HDC site manager as required (such as if an increased risk has been identified) or if beach users have not returned from their trip.

Beach closure

Beach closure is a temporary road closure notice under s342 and the tenth schedule of the Local Government Act 1974 and its associated control measures.

Beach closure should be implemented when the likelihood of landsliding is qualitatively judged to be significantly higher than ‘normal’ and therefore the perceived risk is elevated. The decision to close the beach is to be made by the HDC risk owner.

Note: In this context ‘normal’ is the HDC risk owner’s opinion of the typical level of activity.

Landsliding may be ‘triggered’ by several environmental factors. Further landsliding may also be ‘triggered’ following the occurrence of landsliding. As landslide triggers and causes are not well known, together with their associated ‘thresholds’, periodic review will be required of the below to ensure its appropriateness during implementation.

Temporary beach closure is discussed in further detail below.

Criteria for re-opening the beach following closure are also detailed below.

Proactive beach closure

Access to Clifton Beach should be closed by a temporary road closure notice under s342 and the tenth schedule of the Local Government Act 1974 for the reasons listed in Table 3. The proactive actions are put in place when there is a forecast for the triggers in Table 3.

Table 3: Proactive beach closure requirements

POTENTIAL TRIGGER	CRITERIA	HOW MEASURED
RAINFALL	50 mm within 6 hours. 100 mm in 24 hrs.	MetService ‘Severe Weather Warning’ for Hawke’s Bay. https://www.metservice.com/warnings/home . Automated alerts available.
WAVE HEIGHT	Forecast wave height greater than 3.0 metres. Any wave direction.	MetService Marine Forecast. https://www.metservice.com/maps-radar/marine-forecast-maps/significant-wave-height Clifton.
WIND	Minimum mean speed of 90 km/hr. Frequent gusts exceeding 110 km/hr. Any wind direction.	MetService ‘Severe Weather Warning’ for Hawke’s Bay. https://www.metservice.com/warnings/home . Automated alerts available. Cape Kidnappers.
LANDSLIDE	Imminent failure. Higher risk than ‘normal’.	Visual assessment / monitoring.
OTHER	For any other reason deemed necessary to protect public safety.	To be determined by the HDC risk owner.

Retrospective beach closure

Access to Clifton Beach should be closed by a temporary road closure notice under s342 and the tenth schedule of the Local Government Act 1974 for the reasons listed in Table 4. The retrospective actions are put in place when the triggers in Table 4 have actually occurred (whether they were forecast or not).

Temporary Beach Closure

A temporary road closure notice under s342 and the tenth schedule of the Local Government Act 1974 is to be enforced as follows:

- Temporary notices erected advising beach is temporarily closed.
- VMS to display the message **'All access to the Cape is closed! No vehicle or pedestrian access to Cape!'**
- Notification of temporary beach closure by HDC to stakeholders and the public.

When Kaitiaki are present they are to advise of beach closure to potential beach users at Stanley's Point. Kaitiaki should be retained at Stanley's Point for at least two days following the temporary road closure, but for a period to be determined by the HDC risk owner. The temporary road closure is to be enacted as soon as practicable by the HDC site manager at the HDC risk owner's direction.

It is recommended that if a temporary road closure is enacted for the following minimum periods:

- Proactive beach closure - a minimum period of 48 hrs to avoid stakeholder and public confusion with regards to beach access. The minimum recommended 48 hr period can be reduced at the discretion of the HDC risk owner (such as if forecast environmental conditions for a proactive temporary road closure do not actually occur).
- Retrospective beach closure - a minimum period of 7 days after the date of the event to allow time for assessment of the cliff condition. The minimum recommended 7-day period can be reduced at the discretion of the HDC risk owner.

Should access be required during a temporary beach closure, for monitoring purposes for example, approval is required to access the site from the HDC risk owner.

Reference is made to Section 7 for an Emergency Action Plan (EAP), should the temporary beach closure form part of a landslide emergency.

Table 4: Retrospective beach closure requirements

POTENTIAL TRIGGER	CRITERIA	HOW MEASURED
RAINFALL	50 mm within 6 hours. 100 mm in 24 hrs.	Hastings rainfall station. https://www.metservice.com/towns-cities/hastings .
WAVE HEIGHT	Wave height greater than 3.0m recorded over 6 hours	Port of Napier wave buoy ('wave height'). https://www.napierport.co.nz/environment/weather-and-tide/
WIND	Minimum mean speed of 90 km/hr. Frequent gusts exceeding 110 km/hr.	Cape Kidnappers rainfall station. https://www.metservice.com/towns-cities/hastings
EARTHQUAKE	Greater than MM 6 (i.e. felt shaking) within the HB Region	https://www.geonet.org.nz/ Or anecdotally reported in Clifton or Hastings.
LANDSLIDE	Large (100 m ³ to 1,000 m ³) to very large landslide (greater than 1,000 m ³). Enough to block or impede access along the beach.	Visual assessment / monitoring.
OTHER	For any other reason deemed necessary to protect public safety.	To be determined by the HDC risk owner.

Beach Re-Opening

Criteria for re-opening the beach following temporary beach closure are detailed below.

Beach re-opening is the removal of temporary road closure notice under s342 and the tenth schedule of the Local Government Act 1974 and the associated control measures.

Beach re-opening is to be determined by the HDC risk owner, based upon advice from the technical advisor.

The criteria for beach re-opening would be that the current risk is qualitatively assessed as being not significantly higher than 'normal'. Beach reopening should be enacted by reversal of the measures detailed above for temporary beach closure.

When the beach is to be re-opened following a temporary road closure, then a minimum notification period of 24 hrs is recommended to stakeholders and the public.

Monitoring

Routine

Requirements for routine monitoring are detailed in Table 5. Routine monitoring is to encompass the entirety of the site from Stanley's Point to the edge of the DOC land at Cape Kidnappers.

Non-Routine Monitoring

Non-routine monitoring should be completed on an as required basis. Most commonly, non-routine monitoring will be required following beach closure (either proactive or retrospective).

The requirement for non-routine monitoring and what it should comprise should be agreed between the HDC risk owner and the technical advisor. The methods listed above for routine monitoring may be used but other monitoring methods may be appropriate dependent on the specific circumstances.

What to do if conditions change

Should monitoring or beach users identify that the landslide risk may be higher than 'normal', then this should be advised to the HDC risk owner ASAP and a temporary road closure should be considered.

Table 5: Routine monitoring

WHAT	WHEN	WHO	SCOPE OF MONITORING
VISUAL INSPECTION	Monthly	HDC	Risk control measures. Evidence of previous landsliding. Locations of potential future landsliding.
	Annually (unless required for a specific event).	Technical Advisor	Evidence of previous landsliding. Locations of potential future landsliding.
UAV SURVEY (PHOTOGRAMMETRY)	Annually (If deemed necessary by the Technical Advisor)	Technical Advisor	Identify areas of loss and gain via comparison between surveys.

EDUCATIONAL RISK MANAGEMENT

Hazard Signage

Signage is used to communicate the hazard and associated risk to beach users

The signs that are used at the site are shown here in Figure 4.

In addition, a Variable Message Sign (VMS) (Figure 5) may be located at Clifton when the Beach is closed. The VMS is to display the message

All access to the Cape is closed! No vehicle or pedestrian access to Cape!

The VMS can be removed from the site when the Beach is open.

Locations

The locations of the installed signage at Clifton is shown in Figure 6. Additional signage is repeated at the gannet colony and DOC facilities at the Cape.

Signage should be checked to ensure it is installed and in adequate condition as follows:

- HDC personnel:
- Immediately prior to beach opening or re-opening.
- Monthly as part of routine monitoring.
- During non-routine monitoring, which is completed as required.

Any maintenance requirements for signage are to be reported to the HDC site manager.

Signage is to be assessed for its effectiveness during implementation and should be changed as required

Figure 4: Hazard signage used at Clifton



Figure 5: VMS used at Clifton



Figure 6: Information board location



Stanley Point Signage

Signage, as shown in Figure 7, is installed at Stanley Point at the location shown in Figure 8.

The signage advises beach users of hazards that can be expected along the beach.

Other Media Communications

Other forms of media are to be used as required for landslide risk management.

The key purposes of media communications are:

- Provide the latest updates with regards to landslide hazard, such as the reporting of landslides as they occur.
- To communicate temporary beach closure and re-opening.
- Promote the reporting of observed landslide by beach users.

The requirements for media communications are to be determined by the HDC risk owner.

Figure 7: Stanley Point signage



Caution! Rockfall

The journey along Clifton beach is exposed to rockfall at all times.

If proceeding, stay close to the water's edge do not loiter on the beach.

Caution! Rising tide

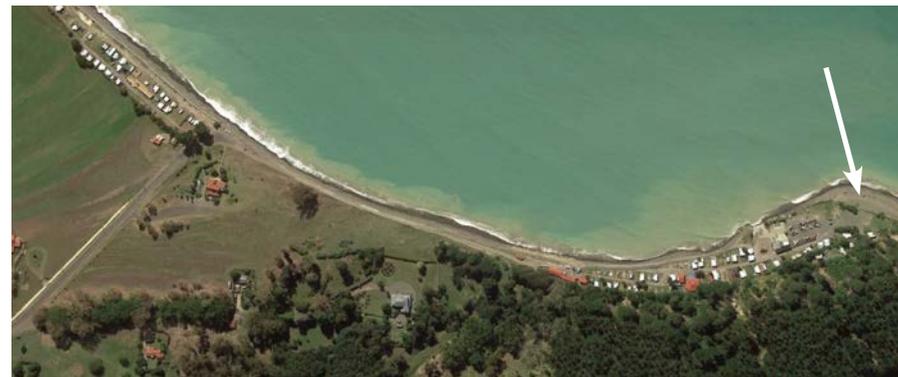
The route along Clifton beach is submerged by incoming tide.

Allow 6 hours for the return walk to the gannet colony.

Depart here 3 hours before low tide.

Check tide timetables.

Figure 8: Stanley Point signage location



An aerial photograph of a coastal area featuring a prominent, layered cliff face on the left side. The cliff is composed of light-colored, stratified rock or sediment. At the base of the cliff, there is a sandy beach that curves along the shoreline. The water is a clear, turquoise color, and the sky is blue with some light clouds. The overall scene is a natural coastal landscape.

SAFETY EQUIPMENT

- PPE
- Mobile Phone – Emergency Contact
- List of Contacts
- HDC Staff / Contractor Safety Analysis (Refer Appendix 1)

ONGOING INVESTIGATIONS

This section of the O&M manual defines ongoing investigations required to further investigate the known landslide hazards.

Landslide Inventory

A landslide inventory should be kept of all known landslides to inform ongoing risk management.

The inventory will be developed from two investigative sources:

- Visual observation – identified by HDC staff or beach users based upon visual observation.
- UAV photogrammetry – identified by routine or non-routine monitoring.

Landslides within the inventory should be classified as follows:

- **Landslide emergency** - landslide has occurred and has directly impacted a beach user (s).
- **Landslide incident** - a landslide has occurred and resulted in a near miss with a beach user (s). The beach user was in the immediate location and visually observed the landsliding.
- **Landslide event** - a landslide has occurred as detected by monitoring but did not result in a landslide incident or emergency.

The landslide inventory will be maintained by the technical advisor. All landslide records should be provided to the technical advisor.

The landslide record should include the items summarised in Table 6 on the next page.

The landslide inventory record should be made available for completion to:

- HDC staff.
- Technical advisor.
- Commercial tourism operators

Provision has also been made in site signage to inform beach users how to directly record observed landslides.

CCTV

CCTV is installed at Stanley's Point. The purpose of the CCTV is to allow assessment of the effectiveness of risk management controls. Specifically, to assess the number of beach users.

Table 6: Landslide inventory record

TIME AND DATE (WHERE KNOWN)					
LOCATION (PREFERABLY COORDINATES OR GEOREFERENCED PHOTOS)					
VOLUME (VISUAL ESTIMATE)	Small (up to 10 m ³) Moderate (10 m ³ to 100 m ³) Large (100 m ³ to 1,000 m ³) Very large (greater than 1,000 m ³)				
MECHANISM (WHERE KNOWN)	Fall	Topple	Slide	Spread	Flow
SOURCE AREA COMMENTS					
DEPOSIT COMMENTS					
LOCATIONS IMPACTED BY LANDSLIDE	Cliffs only (landslide didn't make it on to the beach) Upper 1/3 of beach (i.e. base of cliff) Upper 2/3 of beach All of beach All of beach and nearshore				
TRIGGER (IF ANY)					
CLASSIFICATION	Landslide event Landslide incident (near miss with beach user) Landslide emergency (beach user directly impacted)				
OTHER COMMENTS					
IMAGERY/PHOTOGRAPHS TAKEN					
RECORD COMPLETED BY					

EMERGENCY ACTION PLAN

The following subsections summarise the Emergency Action Plan (EAP) for Clifton Beach. A landslide emergency is defined as a landslide has occurred and has directly impacted a beach user (s).

Emergency Management Context

There are three modes of activation for emergency response within Hawke’s Bay Civil Defence and Emergency Management (HBCDEM), as shown in Figure 9.

The required mode of activation is dependent on the impacts of an event (actual or potential). The defined emergency levels based upon impacts are summarised in Figure 10 (shown over the page) together with their ‘State of Emergency Status’.

Figure 9: Hawke’s Bay modes of activation for emergency response

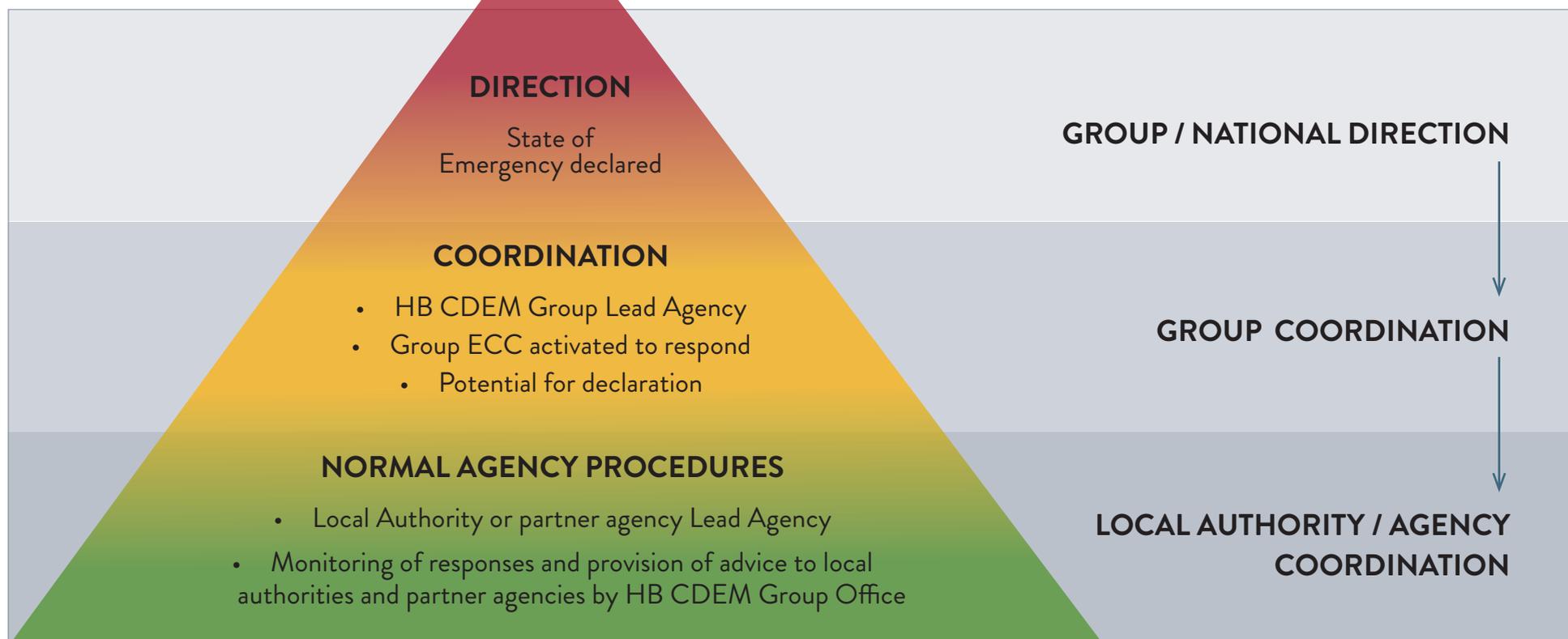


Figure 10: Levels of response based upon actual or potential impacts

EMERGENCY LEVELS	HB CDEM GECC MODES OF ACTIVATION	EXPLANATION	EXAMPLE IMPACTS	STATE OF EMERGENCY STATUS
1 SINGLE AGENCY RESPONSE	NORMAL AGENCY PROCEDURES	Managed by the Incident Controller of the relevant lead agency with on-site coordination (e.g. TA, Police, Fire, OHS, Lifeline provider). HB COEM monitor situation.	<ul style="list-style-type: none"> Minimal threat to life or property Minor disruption to a lifeline service. 	NO DECLARATION REQUIRED
2 NO DECLARATION REQUIRED		Managed by the Incident Controller of the relevant lead agency with local coordination (e.g. TA, Police, Fire, OHS, Ufolinc provider, MPI) . HB CDEM monitor situation and liaise with responding agency as part of BAU activities to ensure support is given if event escalates.	<ul style="list-style-type: none"> Potential threat to life/ property Disruption to a lifeline service Minor welfare impacts (Welfare Coordination Group not required) Potential local economic impact 	DECLARATION UNLIKELY
3 MULTI-AGENCY RESPONSE	COORDINATION	Events that involve multiple agencies and require coordination across multiple local incident points. Response to non-natural hazard events will be managed by the relevant lead agency Incident Controller (OHS, Emergency Services, MPI etc) with support from the HS COEM Group. These will be coordinated from the relevant agencies EOC. HB COEM Coordinates support to the agency response in centralised functions e.g. Welfare, Intelligence, Planning, PIM. The HB CDEM Group Controller will manage all natural hazard events as the relevant Lead agency. The HS CDEM Group may also manage any non-natural hazard events if requested to do so by the relevant agency. These will coordinated from the Group ECC. HB CDEM Group activates GECC functions to co-ordinate local/ regional operations.	<ul style="list-style-type: none"> Threat to life and/ or property One or more areas impacted Short-term isolation of some communities (less than 3 days) Short-term disruption to lifeline services (less than 3 days) Welfare Impacts requiring coordination of welfare agencies (Welfare Coordination Group activated) Local economic impact. 	LOCAL DECLARATION CONSIDERED
4 MULTI-AGENCY RESPONSE		DIRECTION	A multi-agency emergency with potentially significant consequences. Direction and coordination is required between multiple agencies and local areas. Event is of a scale that the need for a declaration of a state of emergency is likely. HB COEM Group activates GECC functions to coordinate / direct regional operations.	<ul style="list-style-type: none"> Significant threat to life and property Multiple local areas/ entire region impacted Medium-term isolation of communities (3-10 days) Medium to long-term disruption to multiple lifeline services (3 -10 days) Significant local/ regional economic impact.
5 MULTI-AGENCY RESPONSE	A state of national emergency exists or the civil defence emergency is of national significance; at this level, coordination by the National Controller will be required.		<ul style="list-style-type: none"> Significant impact to life and property Entire region / multiple regions impacted Long-term isolation of communities Long-term disruption or loss of lifeline services Major regional and national economic impact. 	NATIONAL DECLARATION

Based upon the above and the precedence of the 23 January 2019 CKL, a landslide emergency is expected to be Emergency Level 1 to 3, dependent on the specific circumstances.

This is due to the potential or actual threat to life / property. A local 'State of Emergency' declaration is unlikely but may be required under certain circumstances.

The assessed impacts for each emergency level are summarised in Figure 11

On this basis, control of Emergency Levels will be as follows:

- Emergency Levels 1 and 2 – HDC as Lead Agency
- Emergency Levels 3+ - HBCDEM as Lead Agency.

A landslide would be defined as a 'natural hazard' and on this basis, an Emergency Level 3 response would be managed by HBCDEM (unless agreed otherwise).

This is assuming that the landslide emergency is not part of a larger emergency, such as that associated with other natural hazards (such as an earthquake or tsunami).

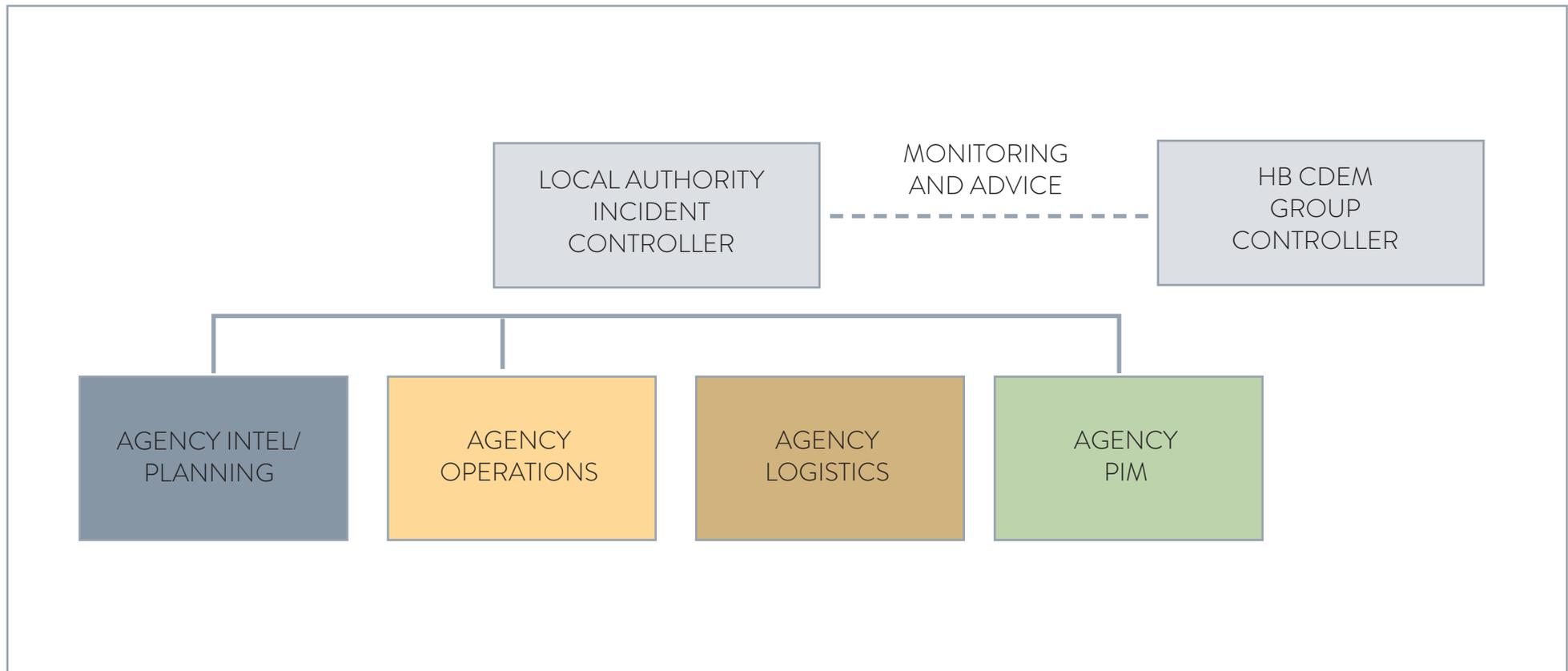
	1	2	3	4	5
	NORMAL AGENCY PROCEDURES		COORDINATION	DIRECTION	
PUBLIC EXPECTATIONS	<ul style="list-style-type: none"> • Public in affected area expect some short disruption. • General public in wider area go about day to day life as usual. 		<ul style="list-style-type: none"> • Impacted public expect disruption to normal life for a period of time and are eager to be back to normal quickly. • General public expects some small disruption due to response. 		<ul style="list-style-type: none"> • Impacted public expect long term disruption to normal life. There is acknowledgment that there may not be quick fixes to impacts. • General public expect widespread disruption for a period of time as a result of the response.
PUBLIC/ POLITICAL / MEDIA INTEREST	<ul style="list-style-type: none"> • Low level of public interest. • Some local media coverage. • Minimal political interest. 		<ul style="list-style-type: none"> • Public interest locally and nationally with potential for offers of assistance from the public. • Local media coverage with some national coverage. National attention may decrease after initial response. • Local Political interest and Interest at Ministerial level. 		<ul style="list-style-type: none"> • Intense public interest locally and nationally with relief funds established and offers of assistance from the public. • Widespread coverage locally and nationally within the media. • High level government interest at local, national and international level.
BUSINESS AS USUAL (BAU) ACTIVITIES	<ul style="list-style-type: none"> • BAU activities expected to continue largely unaffected. • Consideration given to how responding staff are supported with BAU responsibilities. 		<ul style="list-style-type: none"> • Potential to scale back BAU and defer projects to manage response. • How BAU can be scaled back to facilitate response determined in business continuity plans developed in readiness. 		<ul style="list-style-type: none"> • Non critical business functions scaled back or stopped. Projects put on hold to allow effective response from organisation. • BAU considered in context of business continuity plans and the emergency-should services be adapted?
STAFFING	<ul style="list-style-type: none"> • Difficult to free up staff for response due to BAU pressures. • Some availability of volunteers. • Opportunity to develop staff through actual experience. 		<ul style="list-style-type: none"> • Staff expected to be available for response from across the organisation. • Potential for deployments from other organisations within the Group and into the region from elsewhere in New Zealand. • Volunteers fully active. 		<ul style="list-style-type: none"> • Staff involved in response from a range of organisations across the Group. • Deployments into region from other Groups where available to supplement staffing. • Deployment of MCDEM staff into region. • Volunteers fully active with spontaneous volunteering occurring.
NATIONAL LEVEL SUPPORT	<ul style="list-style-type: none"> • NCMC unlikely to activate. • Support mechanisms used in larger events unlikely to stand up. 		<ul style="list-style-type: none"> • NCMC likely to activate to monitor or provide support. • Neighbouring regions likely to offer help and resources. 		<ul style="list-style-type: none"> • NCMC activates in support or potentially to lead event. • Neighbouring regions potentially affected and may be unable to help. • Critical resources managed nationally.
RECOVERY	<ul style="list-style-type: none"> • Transition from response to recovery • Highlights outstanding actions. • Responsibilities assigned but unlikely to set up formal structure. 		<ul style="list-style-type: none"> • Planned Recovery required. Small recovery structure in place. • Recovery may not require all task groups to be activated. 		<ul style="list-style-type: none"> • Planned Recovery required. Large recovery structure in place to coordinate and manage recovery, potentially for a long period of time. • Recovery likely to disrupt BAU activities of responding organisations.

ROLES AND RESPONSIBILITIES

Emergency Levels 1 and 2

For Emergency Levels 1 and 2, HDC would act as the Lead Agency as the Local Authority. The organisational chart for Emergency Levels 1 and 2 response is shown in Figure 12. HBCDEM would provide monitoring and advice to HDC as required

Figure 12: Emergency Levels 1 and 2 – organisational chart



Emergency Levels 1 and 2

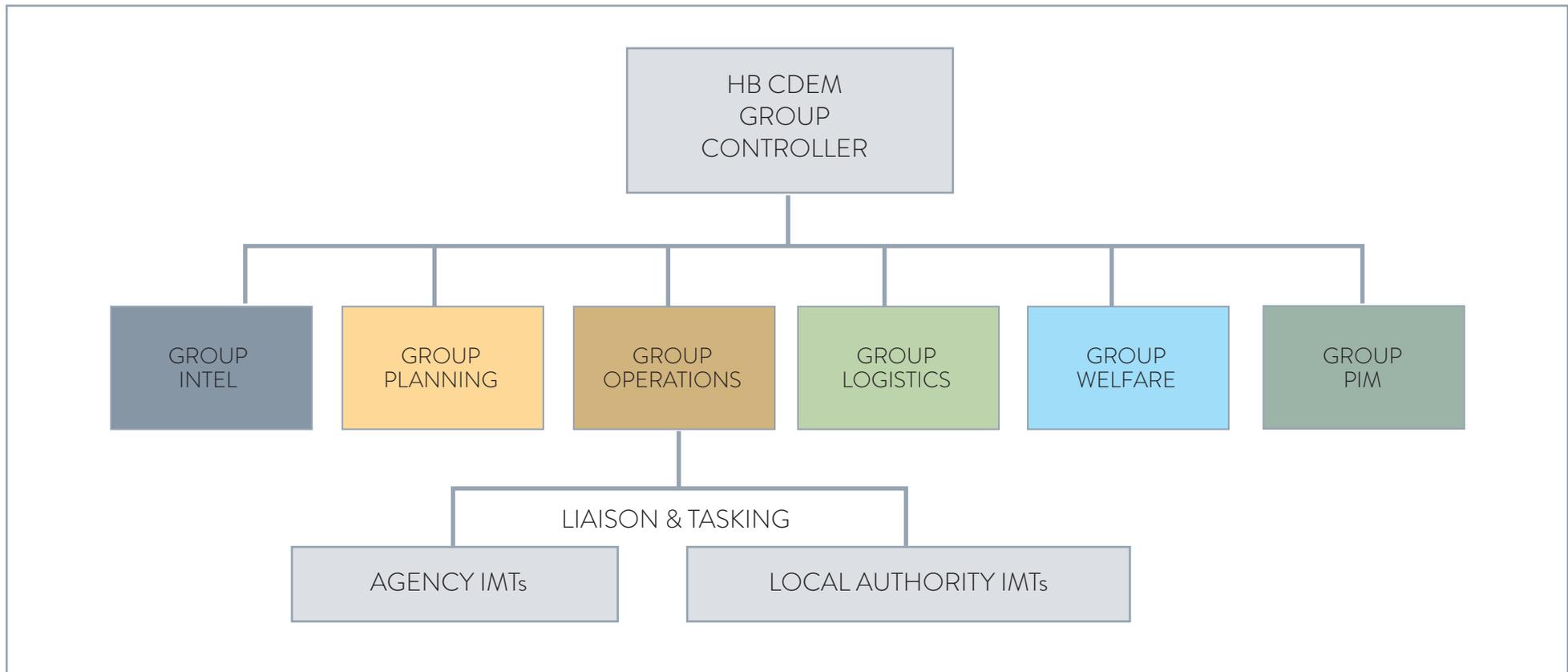
The key example responsibilities for the Lead Agency (Local Authority) and HBCDEM for Emergency Levels 1 and 2 response are shown here in **Figure 13**.

	LEVELS 1 & 2	
ROLES	LOCAL AUTHORITY	CDEM GROUP ECC
CONTROL	<ul style="list-style-type: none"> • Strategic, Operational and Tactical management of event. • Liaise with Chief Executive or Senior staff 	<ul style="list-style-type: none"> • Liaison and advice to Incident Controller
INTELLIGENCE	<ul style="list-style-type: none"> • Collection of local intelligence to support response. 	<ul style="list-style-type: none"> • Assistance accessing technical expertise e.g. HBRC (Engineering/ Environmental / Hydrological advice).
PLANNING	<ul style="list-style-type: none"> • Identification of key tasks and response planning. 	<ul style="list-style-type: none"> • Advice and guidance as requested.
OPERATIONS	<ul style="list-style-type: none"> • Coordinate activities of staff. 	<ul style="list-style-type: none"> • Liaison with the Emergency Services Coordinating Committee members (ESCC).
LOGISTICS	<ul style="list-style-type: none"> • Coordinate/ acquire and manage resources. 	<ul style="list-style-type: none"> • Administration of EMIS.
WELFARE	<ul style="list-style-type: none"> • Cater for minor welfare issues e.g. provision of catering, short term shelter. • Identify potential welfare impacts as a result of response activities. 	<ul style="list-style-type: none"> • Liaison and advice to Incident Controller or Welfare function on minor welfare issues e.g. overnight accommodation options, contacts etc.
PUBLIC INFORMATION MANAGEMENT	<ul style="list-style-type: none"> • Coordinate public information management for response. • Inform Mayor and Councillors. 	<ul style="list-style-type: none"> • Support agency messaging on Group media platforms e.g. Facebook.

Emergency Level 3+

For Emergency Level 3+, HBCDEM would act as the Lead Agency.

The organisational chart for Emergency Levels 3+ response is shown here in Figure 14.



Emergency Level 3+

The key example responsibilities for the Local Authority to support HBCDEM for an Emergency Level 3+ response are shown here in **Figure 15**.

	LEVELS 3, 4 & 5	
ROLES	LOCAL AUTHORITY / AGENCY	CDEM GROUP ECC
CONTROL	<ul style="list-style-type: none"> Tactical management of local authority / Agency response and essential services Liaison with Group Controller. 	<ul style="list-style-type: none"> Strategic and Operational management of CDEM Response activities Liaison/ Advice to local Authority and Agency Incident Controllers.
INTELLIGENCE	<ul style="list-style-type: none"> Provision of status reports to GECC for input into SITREP Local Intelligence from the field provided to GECC. 	<ul style="list-style-type: none"> Collection of information from a regional perspective, including technical expertise e.g. Metservice, GNS, HBRC (Engineering/Environmental / Hydrological advice).
PLANNING	<ul style="list-style-type: none"> BCP Asset planning Input into planning process through identification of task in status reports. 	<ul style="list-style-type: none"> Development of Action Plan, Response objectives, options and tasks.
OPERATIONS	<ul style="list-style-type: none"> Coordinate Local authority / Agency activities as tasked by GECC Escalate issues to GECC as necessary. 	<ul style="list-style-type: none"> Coordinate and task operations across all responding agencies Emergency Services Liaison Coordinate Lifeline Utility providers response activities Manage and coordinate all volunteer requirements and activities.
LOGISTICS	<ul style="list-style-type: none"> Manage local authority / Agency resources to implement operations Provide resources to GECC upon request (inc. staff) Identify critical resource needs Manage finances and report to GECC Logistics. 	<ul style="list-style-type: none"> Coordinate, acquire and manage resources across the region Collate financial expenditure across region for claims Manage EMIS and COP systems Manage offers of assistance.
WELFARE	<ul style="list-style-type: none"> Identify welfare issues as a result of Local Authority / Agency operations Identify public facing activities that would benefit from coordination with welfare delivery e.g. building assessments Provide staff to GECC to assist with welfare response. 	<ul style="list-style-type: none"> Coordinate welfare response activities on behalf of responding agencies including: <ul style="list-style-type: none"> Activation of the Welfare Coordination Group (WCG) Activation of the Rural Advisory Group (RAG) Coordination of the 9 welfare services sub functions. Welfare operations (CDCs, outreach etc) Community liaison and support of community led responses Case Management/Navigation services.
PUBLIC INFORMATION MANAGEMENT	<ul style="list-style-type: none"> Disseminate local information through local Authority / Agency networks Support Group messaging on local media platforms e.g. Facebook Assist with community meetings and briefings Inform CE, Mayor and councillors. 	<ul style="list-style-type: none"> Coordinate and manage regional messaging, social media, interviews and press releases. Organise and support community meetings Managing VIP's.

The HDC Incident Controller should complete the checklist in Figure 17 for transitioning responsibility to HBCDEM for Emergency Level 3+.

Emergency Response

In the event of a landslide emergency, the HDC risk is owner is to:

1. Activate emergency services if required (and not done so already).
2. Activate a temporary road closure notice under s342 and the tenth schedule of the Local Government Act 1974.
3. Complete the HDC Form 1 – Initial Appreciation, together with the HDC Incident Controller.
 - a. The completion of this form will determine the assessed Emergency Level.
 - b. The form should be completed with consideration of Figure 10 and Figure 11.
4. If assessed as an Emergency Level 3+ - complete Transition Checklist (Figure 16) for transfer of responsibility to HBCDEM Incident Controller.
5. If assessed as an Emergency Level 1 or 2 – transfer responsibility to HDC Incident Controller.

Figure 16: Transition checklist from HDC to HBCDEM (Level 3+)

Transition Checklist Normal Agency Procedures to GECC Coordination	
	<i>Tick</i>
What actions have been completed to date? <i>Operational activities / Welfare activities / Public Information etc</i>	<input type="checkbox"/>
What activities are currently underway? <i>What should continue without disruption during transition?</i>	<input type="checkbox"/>
Is there an Action Plan developed? <i>Is a current action plan developed for the next operational period?</i>	<input type="checkbox"/>
What community engagement activities have been undertaken? <i>Has anything been done in the community e.g. welfare checks etc</i>	<input type="checkbox"/>
Is there a need for a declaration? <i>Are extra powers needed to effectively respond?</i>	<input type="checkbox"/>
Is there a need for supplementary staffing? <i>How long have current staff been operational? Is another shift available? Are more resources required from other parts of the Group?</i>	<input type="checkbox"/>
Can the organisation cope with BCP arrangements? <i>Are resources available to ensure BCP can be implemented? Is anything additional required?</i>	<input type="checkbox"/>
What agencies have been engaged so far? <i>Which agencies have been involved and how?</i>	<input type="checkbox"/>
What public information has been done? <i>What has been done so far and through what mediums? Is there current interest from the media?</i>	<input type="checkbox"/>
What are the current financial arrangements? <i>How has the response been funded? Have any relief funds been established?</i>	<input type="checkbox"/>
Are there any critical assets? <i>Is anything identified as vital to the response?</i>	<input type="checkbox"/>
What is the agreed time for transition? <i>When will transition to GECC Coordination officially occur? How will it be notified?</i>	<input type="checkbox"/>

EMERGENCY COMMUNICATIONS

The site has cell phone coverage.

No other methods for emergency communication are therefore required.

Emergency Temporary Road Closure

Refer to Section 3. The process for beach re-opening following a temporary road closure in an emergency is as described in Section 3.

Emergency Response - Review

Subsequent to any landslide emergency, a review should be undertaken of the emergency response and any opportunities for improvement identified. The review should include all relevant stakeholders from the response.

Improvement opportunities identified should be reflected within this O&M manual.



CLIFTON BEACH LANDSLIDE HAZARD - OPERATIONS MANUAL APPENDIX 1

HDC STAFF / CONTRACTOR HEALTH AND SAFETY PLAN

JOB SAFETY ANALYSIS (JSA)

TASK: Site Survey at Clifton Beach Rock falls	DATE:	TEAM: Clifton Beach Access (HDC Approved Contractor)
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Task Description - Use the Risk Assessment Matrix on the next page to determine the Risk Rating

Step No.	Step/task description	Potential Hazard	Consequence	Likelihood	Risk Rating (with no controls)	Control measures	Revised Risk Rating
1	Driving in rugged areas (use of all-terrain vehicle or quad bike).	Traffic accident.	Injury/Death.	0.2	20	<ul style="list-style-type: none"> Be aware of the terrain Stick to an appropriate speed limit for the terrain Ensure helmet is worn and that driver/operator is fully qualified. 	9
2	Moving Machinery and Traffic – Driving on the site.	Accident involving a vehicle on the site.	Accident involving a vehicle on the site.	0.3	20	<ul style="list-style-type: none"> Stay well away from moving machinery Ensure operator is aware of your presence. 	9

Step No.	Step/task description	Potential Hazard	Consequence	Likelihood	Risk Rating (with no controls)	Control measures	Revised Risk Rating
3	Slips, trips and falls	Injury – cuts, bruising, breaks	Injury – cuts, bruising, breaks	0.3	24	<ul style="list-style-type: none"> Wear correct PPE (Hi-Vis, Supportive walking boots or shoes, warm clothing) Keep to compacted ground or shoulder Do not enter unauthorised areas 	7.2
4	Manual handling	Back or muscle injury. Loss of control of material resulting in physical injury	Lifting heavy loads	0.2	20	<ul style="list-style-type: none"> Use appropriate PPE (safety vest, steel cap boots) for the site. Use correct heavy lifting technique Equipment is maintained, calibrated (if required) and in good working order 	4
5	Sun	Excessive exposure to sun leading to sunburn or skin cancer.	Excessive exposure to sun leading to sunburn or skin cancer	0.3	24	<ul style="list-style-type: none"> Check forecast before leaving Wear appropriate clothing for the forecasted weather and site requirements Wear sunscreen even if it is overcast Take sufficient drinking water with you. 	7.2
6	Extreme Weather Conditions	Hypothermia, Sunstroke and Dehydration	Hypothermia, Sunstroke and Dehydration	0.45	45	<ul style="list-style-type: none"> Check the weather forecast before leaving the office and prepare accordingly Bring plenty of water 	20.25
7	Earthquake	Engulfment, Falling	Severe Injury, Death	0.3	30	<ul style="list-style-type: none"> OUTSIDE: Move to open area if safe to do so. Avoid falling hazards. Drop, Cover and Hold. Protect your head and neck 	9
8	Tsunami Event	Engulfment, Drowning	Severe Injury, Death	0.3	30	<ul style="list-style-type: none"> OUTSIDE: Move inland to high ground, follow signposted tsunami evacuation signs posted at camp site. Aim to be at least 2kms inland or 35m above sea level 	9
9	Noise	Hearing damage due to prolonged or excessive exposure to noise	Hearing damage due to prolonged or excessive exposure to noise	0.2	4	<ul style="list-style-type: none"> Bring hearing protection and use if required. 	0.8

Step No.	Step/task description	Potential Hazard	Consequence	Likelihood	Risk Rating (with no controls)	Control measures	Revised Risk Rating
10	Accessible water bodies – working over, near water	Falling into water with possible drowning, contact with biological material	Drown/sickness	0.45	45	<ul style="list-style-type: none"> Be aware of the sea and the tidal nature of working in and around the beach. Check tide charts 	20.25
11	Rockfall	Instability of high rock slopes	Injury	0.45	45	<ul style="list-style-type: none"> On-site spotter (client) and proximity assessment 	20.5
12	If Inspection is by Boat	Falling off the boat Capsize	Drowning/Injury	0.45	45	<ul style="list-style-type: none"> Wear life jacket Always follow captains' instructions 	20.25
13	If inspection is from Cliff Top	Cliff collapse/fall	Injury/Death	0.45	45	<ul style="list-style-type: none"> Ensure safe access is available and Stay behind cracking and always stay greater than 5 m from the cliff edge 	20.25
14	Communication	Lone working, Instability of high rock slopes	Injury/Death	0.45	36	<ul style="list-style-type: none"> Contact to be made with on –site Kaitiaki prior to accessing the beach Give an agreed approximation of time at site Kaitiaki will wait until safe return If inspection at site is extended beyond agreed timeframe contact Kaitiaki immediately 	16.2

Does your task involve any of the following? If YES, see your Supervisor / Manager for approval (a work permit may be required)

HOT WORK

WORKING AT HEIGHT

CONFINED SPACES

EXCAVATIONS

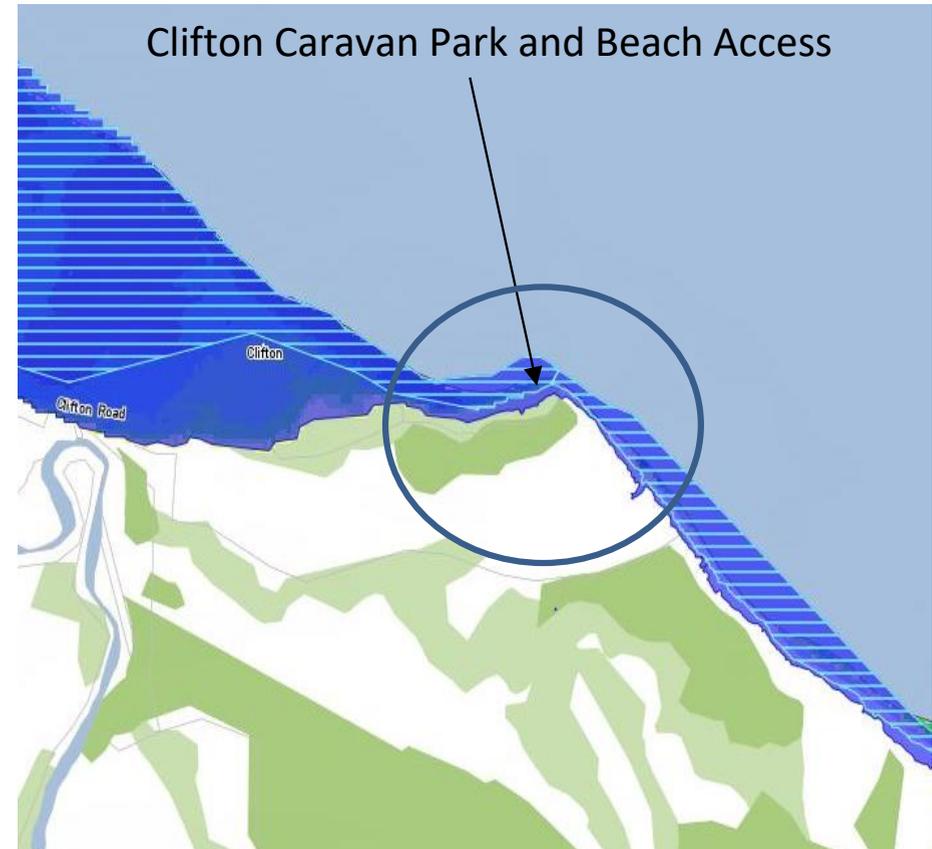
WORKING NEAR LIVE SERVICES

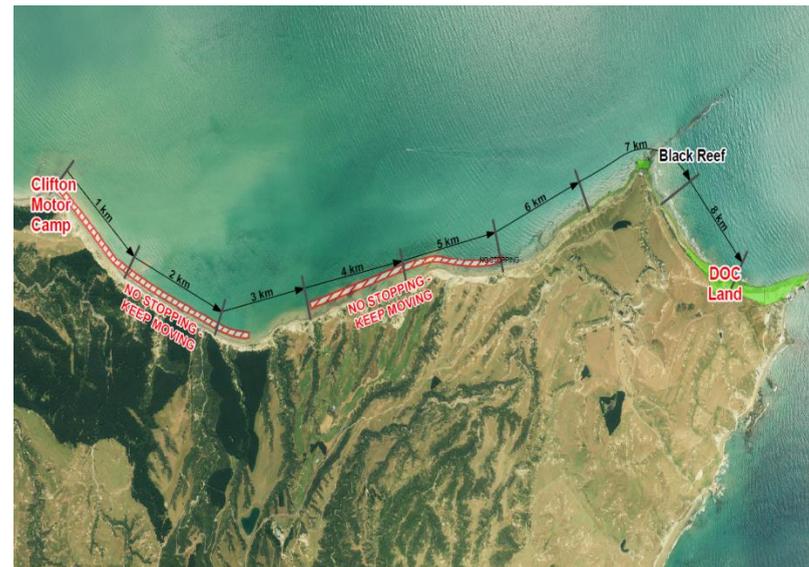
CRANE LIFTS

TSUNAMI EVACUATION MAP & EXIT ROUTE



TSUNAMI INUNDATION EXTENTS





STANDARD RISK ASSESSMENT MATRIX

Any hazard that scores a rating of **HIGH** or **VERY HIGH** will be considered a significant hazard and you may not proceed with the task unless further controls are put in place to lower the risk.

Risk Matrix and Heat Map

LIKELIHOOD	IMPACT				
	INSIGNIFICANT 5	MINOR 20	MODERATE 40	MAJOR 80	SEVERE 100
<i>Almost certain</i> 0.7	Low 3.5	Medium 14	High 28	Extreme 56	Extreme 70
<i>Probable</i> 0.45	Low 2.25	Medium 9	High 18	Extreme 36	Extreme 45
<i>Likely</i> 0.3	Low 1.5	Low 6	Medium 12	High 24	Extreme 30
<i>Possible</i> 0.2	Low 1	Low 4	Medium 8	Medium 16	High 20
<i>Rare</i> 0.17	Low 0.85	Low 3.4	Low 6.8	Medium 13.6	High 17

Notes on Matrix Heat Map:

- An event with **SEVERE IMPACT** is considered **HIGH RISK** even if the chance of occurrence is rare
- Similarly, a **SEVERE EVENT** that is likely to occur is considered **EXTREME RISK**
- An event with **INSIGNIFICANT IMPACT** is considered **LOW RISK** even if it is almost certain to occur.

RISK DESCRIPTORS	LOW	HIGH
EXTREME	>28	<=70
HIGH	>16	<=28
MEDIUM	>7	<=16
LOW	>0	<=7

I have read, understand and agree to the procedure and controls documented.

Name and signature of person(s) performing the work:

DATE:

1

2

3



Department of
Conservation
Te Papa Atawhai