



CITY OF JOONDALUP
POLICY MANUAL

Policy No.

ATTACHMENT A

Section (No)-Infrastructure Management and Ranger Services

POLICY (No.)-COASTAL LIMESTONE CLIFF HAZARD POLICY

OBJECTIVE

To minimize the public safety risks posed by natural coastal limestone cliff hazards, to provide a reasonable approach to satisfy Council's duty of care in relation to these hazards and as far as possible preserve the natural environment for current and future generations to enjoy.

POLICY STATEMENT

The City of Joondalup has a genuine concern for its residents and the public visiting or using facilities along its coastal reserve. The City of Joondalup accepts it has a duty of care with respect to the personal safety and welfare of its residents and visitors to cliff hazard areas. We will aim to manage, with a conservative approach, the potential for injuries and misadventure to residents and visitors, in a manner that does not render the environment sterile, detract from its natural beauty or unnecessarily diminish use and enjoyment in the process.

GOALS, OBJECTIVES AND STRATEGIES

Goal

We seek to minimize the incidence of injury to visitors from limestone cliff hazards on the City's coastal reserves through the implementation of a risk management program, and in so doing manage the City's exposure to public liability.

1. Objective

To minimize the likelihood and undesirable consequences of misadventure or injury to residents or visitors through the implementation of measures which are reasonable in terms of hazard and the inherent character of the identified cliff hazard areas.

1.1 Strategies

1.1.1 Provide key staff awareness campaign to ensure identification of potential or existing cliff hazards and provide appropriate training to key staff to adequately assess the potential risk.



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- 1.1.2 Carry out a risk assessment of the cliff hazard areas at least every 5 years to identify hazards and ensure these are addressed in a review of the cliff hazard maintenance program.
- 1.1.3 Use specialist expertise to identify and rate risk within in the context of this policy.
- 1.1.4 Promptly investigate any reported incidents at cliff hazard areas.
- 1.1.5 Implement appropriate safeguards for protection of the public in light of assessed risks. This will include, but will not be limited to;
 - where appropriate the use remedial works to effectively minimise cliff hazards;
 - use of Dual Use Paths to restrict access to cliff hazard; and
 - use of awareness signs to effectively warn residents or visitors of the hazard.

2 Objective

To encourage appropriate visitor behaviour with respect to cliff hazard areas posed by natural and developed environments.

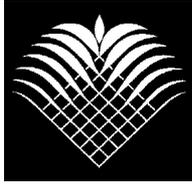
2.1 Strategies

- 2.1.1 Promote public awareness of the hazards by producing and promoting a brochure to increase awareness but also promote the City's policy on personal responsibility – 'Your safety is our concern but is also your responsibility'.
- 2.1.2 Provide signs to alert visitors to the hazards of limestone cliff hazards which are not reasonably obvious. (Standard pictogram or symbol signs be used for easy comprehension).

A guidance note has been developed to assist officers determine the risk and the level of care required, appendix A. Each area should be assessed on its merits using a commonsense and sensitive approach to the surrounding environment.

Background notes have also been drafted, appendix B, to assist officers in understanding of the development of the policy.

Proposed Review Date October 2007



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ATTACHMENT B

GUIDE FOR ASSESSING RISKS FOR COASTAL LIMESTONE CLIFF HAZARDS

Introduction

This guide has been developed to assist Officers in determining natural limestone hazard risks. This guide should be read in conjunction with the City's Coastal Limestone Cliff Hazard Policy and the attached background notes used to develop the policy.

Officers will need to determine the level of risk associated with the coastal reserve. Generally, the Dual Use Pathway (DUP) project provides an excellent access control measure. Fencing of the pathways will restrict access to all these areas and the fence posts will also provide a structure to attach the warning signs. Where a DUP has been constructed a fence and sign monitoring program should be developed to ensure fencing is in good repair and signs are legible.

Where a DUP is not constructed, officers should consider the following factors in the assessment of the area as reasonable measures to address duty of care responsibilities:

- The character and level of usage of the land;
- Whether there has been positive encouragement to the public to the land by the Council;
- Council's use of the land;
- Any limestone cliff hazards;
- Whether an identified limestone cliff hazard is obvious or hidden;
- Whether an ordinary person exercising a reasonable degree of care would avoid the hazard;
- The degree of likelihood of persons of different ages, capacities, sobriety and advertence who might visit the location;
- Whether the danger was created or contributed to by the action of the City or whether the danger is naturally occurring.

In determining the hazard, the City commissioned Gordon Geological Consultants to identify hazards on the City's coastal reserve. In order to address the appropriate level of care, these areas have been determined as high, medium and low and have the appropriate measures applied to these risks according to the factors identified above. Whilst this categorisation is to be applied as a useful starting point, it is important to assess each risk situation on its particular merits by reference to the above factors.

1 Low Level Risk Area

Defined as an area where use is discouraged but the City is aware of minimal usage, the area is without facilities and access is difficult. An example of such an area would be the limestone formations south of Ocean Reef Boat Harbour. Council discourages usage by fencing northern access from the breakwater, does not provide facilities, usage is low but is aware of usage and the risk is naturally occurring. In this case, for example, a set of signs



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should be erected at trail heads warning of the risk and signs attached to the northern fenced area of the breakwater.

2 Medium Level Risk Area

Defined as areas where Council provides minimal facility such as a basic limestone base parking area off the road with no other facilities, is aware of minimal usage but does not actively discourage use and has naturally occurring cliff hazards. A set of signs should be erected at trail heads, international rockfall hazard signs spaced along the trail where the hazard has close proximity to the trail. Where possible the trail should be realigned away from identified hazards.

3 High Level Risk Area

Defined as an area where Council provides parking and change rooms and has naturally occurring cliff hazard. Signs should be erected at all access points to the hazard, where possible fencing should prevent access, signs should be installed along any existing fence line. Any accessible, dangerous, hidden and immediate hazards should be made safe by using remedial action least likely to affect or damage the natural environment and surrounding areas. This may require some works depending on the situation. These areas would include popular swimming beaches.

By way of comment, it is important to realise that each areas should be assessed on its merits, often the area being assessed will not fall neatly into the above. The assessment officer should use a commonsense approach in addressing the hazard using the information in this document as a guide.

4 Monitoring

Where a DUP has not been constructed periodical monitoring of the hazards should be completed after severe storm events or where incidents have been reported. Where a DUP has been constructed periodic risk assessments are not required but a fence and sign maintenance program should be initiated to ensure fences are in good repair and signs are legible.

A suitably qualified person should be used to complete this task. (A number of the City's officers have completed the CALM course on Visitor Risk Management).

5 Signs

All signs comply with the relevant Australian Standard (AS 2416-1995). They should be used sensitively and sensibly to create appropriate levels of public awareness of limestone hazards. Use of international signs with limited text should be used in conjunction with current hazard signs.

6 Education



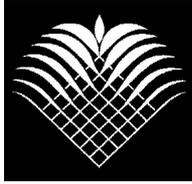
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A brochure titled 'Hazards of our Limestone Coastline' has been printed and has been issued to relevant organisations. Officers should remember to distribute the brochure when discussing or talking to community groups or the public. A record of the distribution list should be kept.

7 Personal Responsibility

Officers should promote the Council's policy on personal responsibility - 'Your safety is our concern but is also your responsibility'.





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ATTACHMENT C

BACKGROUND NOTES FOR OFFICERS ASSESSING LIMESTONE CLIFF HAZARDS IN THE CITY OF JOONDALUP

INTRODUCTION

Following the rock fall at Cowaramup Bay, the Grace Town Disaster, the Coroner's report – rider 1 stated that “coastal local governments should concern themselves with providing a level of care and management for limestone cliff hazards within their boundaries.”.

The then City of Wanneroo progressed the policy by commissioning Gordon Consulting in mid 1997 to assess the risks and produce a report according to the brief. This Consultancy was the subject of Coastcare/Coastwest funding for which a \$10 000 grant was approved. Development applications were submitted and approvals were gained from the Ministry for Planning. The intention was to address the risks identified in the report and includes demolishing cliffs by an excavator/backhoe, brush offs, use of limestone blocks and spalls to restrict access to caves, concrete infill, catch fences and ditches, fencing and signage, and at a last resort, explosives. The then City of Wanneroo ordered 87 signs to be erected during December 1997 to address 33 hazards that are assessed as posing an immediate risk to public safety. This work has been completed, however there are outstanding works required to address the hazards identified in the report.

Since this time, a review of the original report was commissioned, as time had elapsed and it was necessary to determine changes in safety levels of the risk areas. This review was completed in 1998 and a number of minor works were completed, mainly the erection of signs and fences. An inspection of these signs has shown that they have been placed at the point of the hazard. This approach would need to be called into question as the consultant's report identified some hazards had disappeared, and other areas were transformed to create new hazards. The second report indicated there has been a surprising level of activity within such a small period of time.

ISSUES

Duty of Care

The approach taken to identify and to eliminate all the risk hazards along the coastline identified in the Consultant's report needs to be weighted to Council duty of care responsibilities that have been identified in a number of decisions in case law. There are a number of issues identified by these cases and although it is not clear on the level of care required in all circumstances, Council can be confident there is not a requirement to render every hazard totally safe along the coastline in order to be safe from liability. The level of care required depends on factors such as Council's provision of facilities and servicing. The issue is to identify and implement those measures that will discharge Council's level of care to particular risk areas.

Notwithstanding, Council should take a conservative approach in assessment of the risk.



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Satisfaction of the Duty of Care

There are a number of issues that need to be considered given there is a high probability that a duty of care exists with reserves under the City's care and management. The question is, once the duty of care is found to exist (should be accepted taking a conservative approach) what will be considered reasonable measures to discharge a duty of care? Some of the factors which will be considered in determining what are reasonable measures were outlined in the High Court of Australia's decision *Romeo v Conservation Commission of the Northern Territory*. It was found that a duty of care arose by virtue of the Conservation Commission's control of the area where Romeo fell off a natural cliff and was injured.

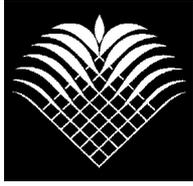
These factors are detailed below:

- The character and level of usage of the land;
- Whether there has been positive encouragement of the public to the land by the managing body;
- The managing body's use of the land;
- Any cliff hazards;
- Whether an identified cliff hazard is obvious or hidden;
- Whether an ordinary person exercising a reasonable degree of care would avoid the hazard;
- The degree of likelihood of persons of different ages, capacities, sobriety and advertence might visit the location;
- Whether the danger was created or contributed to by the action of the managing body or whether the danger is naturally occurring.

The Court also stated that regard was to be given to the effect of preventative measures on the aesthetic qualities of the landscape particularly, where the public body in control of the land has a stated function, for example preserving the integrity of the natural environment.

Also, the Romeo case showed that where public facilities are not provided, the standard of what is required to discharge the duty is less onerous. Further, it confirmed that the managing body only take reasonable steps to prevent foreseeable injury and that where a risk or danger is obvious the council need not go to extra ordinary lengths to warn the public of it or prevent it from being harmed by it.

It also should be noted that in all of these cases that have been determined by the various courts throughout Australia, there has not been a decision that has required local authorities to fence a beach or reserve area. However, after consultation with McLeod and Co., Barristers and Solicitors, it is point out that since there has not been a particular test case regarding limestone hazards on beaches or coastal reserves, a 'long bow' should not be drawn nor should the City of Joondalup be complacent on the issue. Therefore, it is essential that in the reading of the policy, operatives should apply a case by case test to each of the risk areas, using the dot points outlined above.



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Importantly, the Courts also acknowledge the local authority has an important role to determine budgetary and resource allocation considerations and are legitimate factors in taking steps to guard against particular risks.

Accordingly, Infrastructure Management Services has developed this policy for cliff hazards mindful of the above issues.

Department of Conservation and Land Management's Approach

CALM employs consultants to assess the risks periodically and places signs at the access point to the walk trails or beaches. CALM has a policy on the matter and addresses a range of issues that their reserves and lands are used for. It is considered too high flown for the discrete nature of the limestone hazard project, however elements of the policy have been considered and the limestone cliff hazard policy is consistent, as far as reasonably practical, with CALM's policy.
