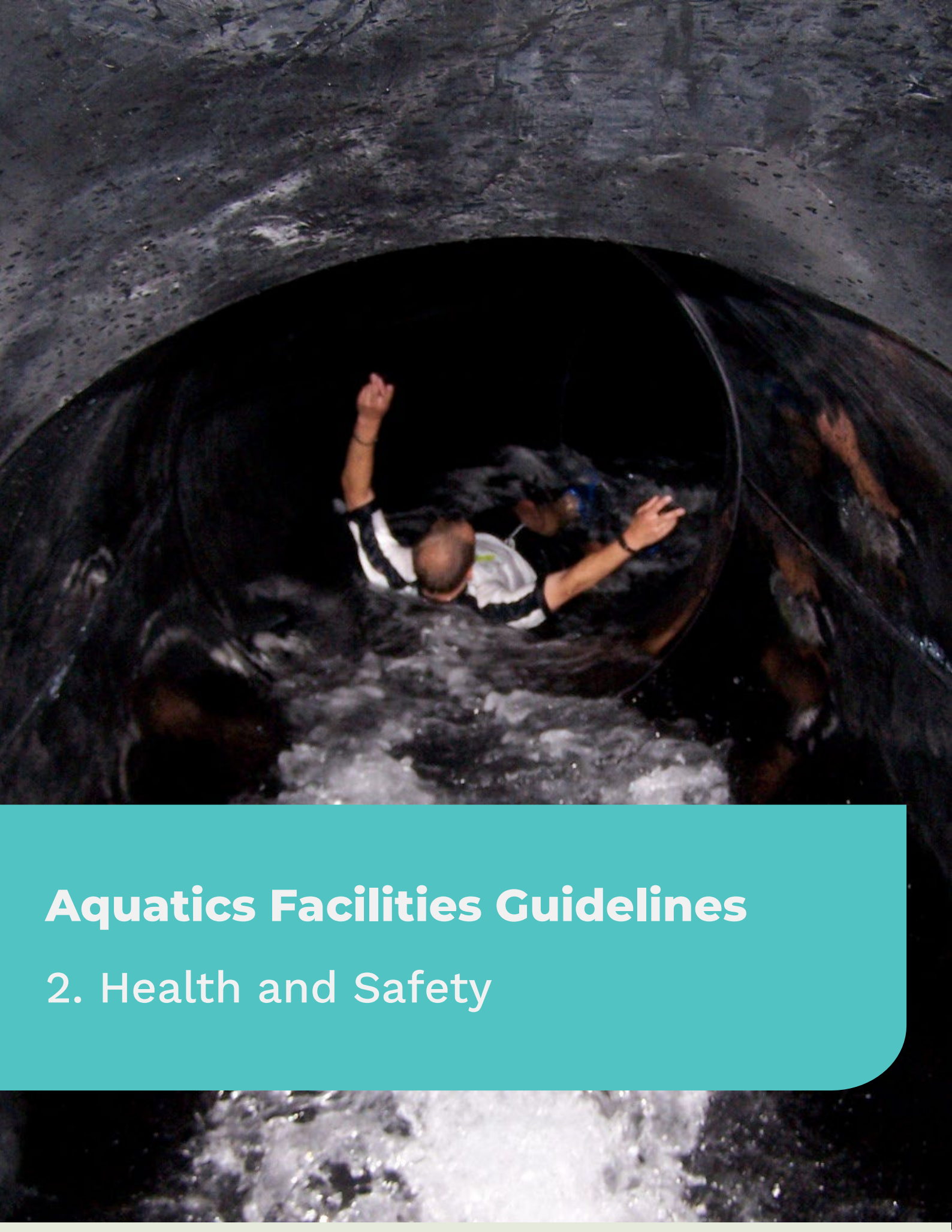

Aquatics Facilities Guidelines

2. Health and Safety

Water Safety NEW ZEALAND

Recreation Aotearoa Te Whai Oranga

SPORT NEW ZEALAND IHI AOTEAROA

Commissioned by: Recreation Aotearoa with funding from Sport NZ and the ACC Drowning Prevention Fund, managed by Water Safety New Zealand.

Authors: Robyn Cockburn and Trish Amos, Lumin.

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The Aquatic Facility Guidelines have been developed for use by aquatic managers. They provide detailed information covering the management and operation of an aquatic facility.

This document is a companion document to the Facility Management Manual, which can be found on the Sport NZ website and the Recreation Aotearoa website.

Contents

1. Introduction

Thorough planning and sound preparation are the basis of any successful aquatic experience. A well-managed, regularly maintained pool should provide an enjoyable and safe space for customers and staff.

Safety is paramount in any aquatic environment and overrides everything else. Managers identify potential hazards, develop plans to minimise hazards, and establish management and emergency procedures. They can use risk management identification and planning tools and a safety checklist. Managers of aquatic facilities that operate year-round facilities and services should ensure a regular review of health and safety and risk management procedures. At a minimum, this should be conducted quarterly. It should also include opportunities for facility personnel to provide input for continuous improvement.

Managers of outdoor pools should take the opportunity to upgrade and repair the swimming pool during closure. They should also provide training opportunities for all staff on the accepted use of the pool before the start of the summer season.

Health and safety are a major issue in the aquatic environment. Statistics on drownings provided by Water Safety New Zealand show that between 2015 and 2024, there were a total 57 drownings in a pool environment. Of these, nine were in public pools, one was in a hotel/motel pool, and five were at thermal pools.

Figure 1: A safety information sign

2. Legislation and national guidelines

Managers of aquatic facilities must be aware of and familiar with key legislation that affects the operation of an aquatic facility and know their role in terms of accountability for ensuring the legislation is enforced.

2.1 Health and Safety at Work Act 2015

The Health and Safety at Work Act 2015 (HSWA) is New Zealand's workplace health and safety law. It came into effect on 4 April 2016.

HSWA recognises that a well-functioning health and safety system relies on participation, leadership, and accountability by government, business and workers. It sets out the principles, duties and rights in relation to workplace health and safety.

HSWA ensures that everyone has a role to play and makes everyone's responsibilities clear:

» Businesses have the primary responsibility for the health and safety of their workers and any other workers they influence or direct. They are known now as a Person Conducting a Business or Undertaking (PCBU). They are also responsible for the health and safety of people at risk from the work of their business.

» Officers (company directors, partners, board members, chief executives) must do due diligence to make sure the business understands and is meeting its health and safety responsibilities.

» Workers must take reasonable care for their own health and safety and that their actions don't adversely affect the health and safety of others. They must also follow any reasonable health and safety instruction given to them by the business and cooperate with any reasonable business policy or procedure relating to health and safety in the workplace.

» Other people who come into the workplace, such as visitors or customers, also have some health and safety duties to ensure that their actions don’t adversely affect the health and safety of others.

Further information

WorkSafe: Health and Safety at Work Act 2015

Template: 10.2 Health and Safety Report Form (Auckland Council)

2.2 Notifiable Event

Under the Health and Safety at Work Act 2015 (HSWA) you must notify WorkSafe when certain work-related events occur.

A notifiable event is when any of the following occurs as a result of work:

» a death

» notifiable illness or injury

» a notifiable incident.

If someone has been killed as a result of work, you must notify WorkSafe immediately.

» Call 0800 030 040 for free 24/7.

The notifiable incident, illness, injury or death must arise out of the conduct of the business or undertaking. It could be due to the condition of the work site, the way the work activity is organised, or the way equipment or substances are used.

Notifiable events may occur inside or outside the actual work site.

What is a notifiable illness or injury?

These are specified serious work-related illnesses or injuries.

All injuries or illnesses that require (or would usually require) a person to be admitted to hospital for immediate treatment are notifiable.

» Admitted to a hospital means being admitted to hospital as an inpatient for any length of time. It doesn't include being taken to the hospital for out-patient treatment by a hospital's Emergency Department, or for corrective surgery at a later time, such as straightening a broken nose.

» The amputation of any part of the body that requires immediate treatment (other than first aid).

» A serious head injury that requires immediate treatment (other than first aid).

» A serious eye injury that requires immediate treatment (other than first aid).

» A serious burn that requires immediate treatment (other than first aid).

» Skin separating from an underlying tissue (degloving or scalping), which requires immediate treatment (other than first aid).

» A spinal injury that requires immediate treatment (other than first aid).

» Loss of a bodily function that requires immediate treatment (other than first aid). For example, through electric shock or acute reaction to a substance used at work.

» Serious lacerations that require immediate treatment (other than first aid).

» An injury or illness that requires (or would usually require) medical treatment within 48 hours of exposure to a substance (a natural or artificial substance in any form for example, solid, liquid, gas or vapor).

» Contracting a serious infection (including occupational zoonoses) to which the carrying out of work is a significant contributing factor including any infection due to carrying out work:

  – with micro-organisms

  – that involves providing treatment or care to a person

  – that involves contact with human blood or bodily substances

  – that involves handling or contact with animals, their hides, skins, wool or hair, animal carcasses or waste products or

  – that involves handling or contact with fish or marine mammals.

» An illness or injury declared in regulations to be a notifiable injury or illness.

Further information

WorkSafe: What events need to be notified?

2.3 PoolSafe®

The PoolSafe® Quality Management Scheme (PoolSafe®) is an initiative jointly developed by Recreation Aotearoa and Water Safety New Zealand (WSNZ). PoolSafe® is an industry led, voluntary management system designed by the industry for the industry. It enables peer to peer assessment and moderates the delivery of public aquatic facilities services, with the intent to limit serious harm to their communities.

PoolSafe® is available to all public swimming pools. It involves an evaluation of a facility's ability to deliver services, which meet appropriate standards and

criteria. PoolSafe® is not an evaluation of actual performance, which will be measured by things such as customer satisfaction, turnover, energy usage, staff turnover and health and safety audits.

PoolSafe® is valid for one year and recognises a facility's ability to deliver services to a national standard. The assessment criteria include:

» Supervision standards

» Lifeguard qualification and training

» Water quality

» Health and safety.

Figure 2: The PoolSafe® logo

2.4 PoolSafe® objectives

1. Satisfy the industry's desire to be professional and forward thinking.

2. Encourage public aquatic facilities to meet a minimum set of standards that provide:

- an environment that supports an enjoyable aquatic experience
- trained staff
- a well-maintained facility and equipment
- clean and comfortable water
- effective and current emergency action plans (EAP)
- good management practices.

3. Allow the public to quickly identify that a particular pool facility is accredited. PoolSafe® benefits the aquatics industry in many ways:

- A proactive identification of standards, which requires attention through training or industry assistance.
- Proactive professionalism.
- An ability to facilitate the transfer of learning followed by an implementation of processes/procedures to meet the minimum standards.
- A way to facilitate ongoing compliance with minimum standards through the self-assessment checklist.
- An ability to lead to a national benchmarking exercise, which could be part of a “competitive advantage process”.
- Consistency with the aquatics industry’s history of mentoring others in the industry.
- Helping new/under-resourced facilities to achieve a higher standard.
- A marketing tool – to internal stakeholders, staff, sponsors and the community.

Further information

PoolSafe® Quality Management Scheme (PoolSafe®)

Template: 10.1 PoolSafe® criteria and checklist report

2.5 QualityPool®

Developed by Recreation Aotearoa in partnership with WSNZ, QualityPool® is targeted at private swimming pools such as holiday parks, gyms, retirement villages, seasonal pools, thermal pools, hotels and motels, and schools. It works as an independent review of an aquatic environment, benchmarking against specific standards. The programme is conducted via a user-friendly online system.

The standards encompass risk assessment and management, pool water quality NZS5826:2010, supervision, emergency procedures, signage, and health and safety. The programme allows operators to review their pools through one simple online assessment system.

Further information

QualityPool®

2.6 Guidelines for schools

Under legislation, school pools are required to meet the same standards of supervision and water quality as public pools.

School Boards of Trustees are required to follow best practice methods for the management of the school swimming pool, which can be found on the Ministry of Education website. They must comply with all relevant legislation and New Zealand Standards that apply to water safety and pool use and management.

School Boards are responsible for the health and safety of everyone using the pool with the Board's permission, including after school use by the school and wider community.

Outside school hours, the Board could still be held responsible for harm to any unauthorised pool users. Boards are advised to maintain and regularly check their security. When a pool is being leased by a third party, e.g. a swim school, the health and safety of the users must be clearly stated under the lease agreement.

Further information

Ministry of Education: Health and safety standards for running a school pool

2.7 Hospitality industry guidelines

Hotel and motel managers are required to establish policies for the use of the pool. These should include the rules of the pool, use of equipment and location of amenities. It should incorporate a pool users code of behaviour.

» Supervision standards – children must be actively supervised at all times.

» Never swim alone.

» Never swim while under the influence of alcohol or drugs.

» Take additional care if you have a medical condition.

» Dangerous/prohibited behaviour, e.g. running, jumping.

Risks should be identified and a plan put in place for managing any hazards in the swimming pool area. An emergency action plan (EAP) should be established and all staff made aware of the plan and its requirements. Staff should receive regular training on the EAP, including the evacuation procedures.

Every pool should have clear, visible safety signage. Good signage will display the pool rules, code of behaviour and what to do in the event of an emergency.

Further information

PoolSafe® signage

ANZCOR guidelines

3. Risk management and hazard awareness

Risk management is the identification, minimisation or elimination of hazards. The key in hazard identification and mitigation is to take all practicable steps to ensure the health and safety of staff, volunteers, contractors, and users of the facility.

Hazard identification includes how the facility is operated and used by customers and staff. Hazards may create varying levels of risk for customers and staff. There are four distinct categories of hazards, some relate specifically to customers and others to the physical structure and operation of the facility.

Figure 3: People swim at an aquatics centre

3.1 People hazards

People hazards are created by staff and customers participating in or watching activities at the facility. This may include:

» customers under the influence of alcohol or drugs

» unsupervised children

» customers who appear nervous or timid, overconfident or unfamiliar with the facility

» crowding

» customers poolside, such as coaches and trainers

» customers with criminal intentions

» physical and mental illness

» inappropriate or anti-social behaviour

» customers with access needs.

In the pool, those who need to be carefully watched include:

» elderly customers

» weak swimmers

» non-swimmers

» customers displaying unsafe behaviour

» customers with known medical conditions

» customers with specific needs

» customers from different cultures

» children.

Staff may also create hazards through their behaviour and its effect on customers' behaviour, lifeguard positioning, and the ability of lifeguards to observe activity in the pool.

Some practical steps to address these are included in the following chapters:

» **Chapter 3:** Customer Care

» **Chapter 4:** Facility Operations

» **Chapter 7:** Personnel.

3.2 Activity hazards

Activity hazards are those relating to specific activities including associated equipment. Some activities can be changed to reduce risk, but others may need to be prevented. Activities generally discouraged include:

» misuse of mobile devices and cameras, especially in changing rooms

» misuse of equipment

» misuse of hydroslides

» running around the pool deck

» tag games, bombing

» bullying, pushing, fighting

» unsafe diving

» swimming under diving boards

» breath-holding activities.

3.3 Physical hazards

Physical hazards include those relating to the design and structure of the facility including its surroundings and related amenities such as play equipment, saunas and spas. Examples of physical hazards include:

» pool deck and tiles

» drain covers

» pool Overflow Channel

» water depth/sloping surfaces

» lane ropes

» pool shelving

» changing rooms

» steps

» starting blocks

» wave chamber outlet

» hoists and ramps

» bulkheads

» cracks in the pool floor or tiles

» water.

Specific tactics for managing these are included in **Chapter 4 – Facility Operations**.

3.4 Operational hazards

Operational hazards relate to the operation of the facility such as pool water quality treatment or plant room operations:

» chemical handling, storage and use

» plant room equipment and operations e.g. boilers, pumps

» maintenance equipment e.g. pool vacuum

» weather hazards for outdoor facilities e.g. lightning

» electrical hazards, both permanent and temporary.

Specific tactics for managing these are included in **Chapter 5 – Plant Operations**.

3.5 Hazard management

Managing hazards will improve the health and safety of customers and staff. The first step in managing hazards is to identify them by undertaking a regular physical inspection of the building, analysing tasks and how they are undertaken by staff, looking at behaviours of customers and looking at accident and incident reports.

The Normal Operating Procedures (NOP) and Emergency Action Plan (EAP) will identify hazards and describe appropriate actions necessary to reduce or minimise them.

Further information

Template: 10.3 Hazard identification form

4. Emergencies

In addition to Normal Operating Procedures (NOP) every facility should have an Emergency Action Plan (EAP). An EAP specifies in detail actions to be taken in the event of every foreseeable emergency. Emergencies can be caused by:

» People: security incidents, medical issues, accidents.

» Equipment/facilities: fire (electrical or other), gas leak, chemical leak or spill.

» Natural events: earthquakes, landslides, major storms.

For every emergency scenario, the EAP should assign responsibility for various key tasks, establish a chain of command during an emergency and specify who does what, where and when. Evacuation procedures of the facility and building need to be included.

Emergency planning starts with identifying potential incidents and accidents. Studying accident records to determine trends in injury type or location is important.

Staff must have a thorough and detailed knowledge of the EAP, and an understanding of their role in it. In-service training programmes should take account of the need for formal instruction in, and practical implementation of, the plan. Staff should be given the opportunity to be involved in the development and revision of the EAP.

When an emergency occurs, rapid response is vital. While speed is essential, an efficient and competent response will decide the outcome. Response by staff should be automatic and this will develop through regular training and practice. Refer to staff training in **Chapter 7 – Personnel**.

4.1 Emergency procedures

Procedures should include:

» Personnel resources available in an emergency, number of staff on duty, their location, and relevant skills.

» Who takes responsibility during an emergency.

» Who will respond and in what order.

» Staff safety.

» Communication systems used (that support different customer communication and access needs).

- Emergency equipment, location and use.
- Locations where emergency care will be administered.
- Identification of emergency services required, correct numbers, response time, responsibilities, access and exit for emergency services.
- Procedure for supporting customers with access needs.
- Cultural considerations and tikanga based practices.
- Procedure for customer information, communication with police, relatives and press.
- Reporting procedures, follow up actions and responsibilities, i.e. who, how, when.
- Aftercare for staff and customers involved in emergency situations.

Established and known procedures allow staff to focus on the situation and those requiring assistance. Confidence and teamwork will come through in-service training programme sessions. These should not be limited to lifeguards but should include all staff including emergency service personnel.

Whenever the pool is in use, a staff member trained in rescue, resuscitation and first aid must be on site to deal with emergencies.

Key steps in dealing with emergencies

Personal safety and the safety of staff is most important. Staff cannot assist in an emergency if they are injured.

Think: take a couple of seconds to assess the situation.

Observe: and ask to quickly build your knowledge of the situation.

Prioritise: formulate response as a list of priorities.

Call for help: if needed.

Advise: lifeguard in charge of the situation (if not you) and await instructions.

Attend: to the most serious situation first.

Direct: those assisting to attend to jobs you allocate.

Check: for any victims not receiving attention.

Secure: poolside supervision.

Contact: emergency services, if required.

Complete: necessary documentation.

Inform: appropriate managers.

Further information

Templates:

» 10.4 Emergency action plan

» 10.5 Pool rescues report

4.2 Civil defence emergencies

During civil defence emergencies, aquatic facilities and staff employed at the facility may have an important civil defence role to play in their local community. As all staff will be trained in first aid, perform a community role and operate a community facility they are best placed to assist the wider community during emergencies. Staff therefore need to be aware of the impact this will potentially have on their ability to go home during times of a civil emergency.

Figure 4: Civil Defence Emergency Kit

Further information

NZS HB 246:2010 Guidelines for risk management in sport and recreation

5. Equipment

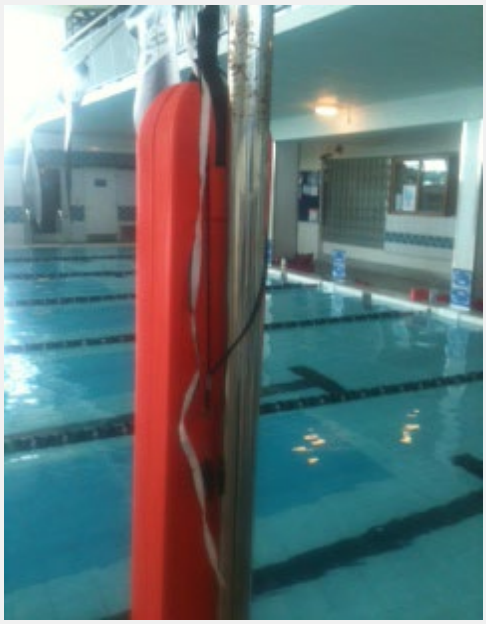
Rescue aids such as reach poles, rescue tubes and throw ropes must be strategically placed, regularly checked, maintained in good order, and fully accessible if they are to assist a rescue. Their location should be identified in the NOP. The use of rescue aids should be practiced regularly as part of the in-service training.

Location of first aid equipment, including a spinal board also needs to be strategically placed and all staff must know where their nearest first aid kit is located. As equipment type can vary between facilities, all staff must be familiar with and undergo training using the equipment specific to their facility such as AEDs, spinal board and oxygen kits.

In addition to the standard first aid and rescue equipment located at an aquatic facility; there should also be civil defence equipment and grab and go bags for staff. The location of the civil defence equipment should be near a fire exit door and responsibility for it detailed in the EAP. The emergency equipment and water should be checked and the water changed annually.

Figure 5: Grab & Go emergency kit

Figure 6: Aquatics rescue tube



For facilities that have oxygen it is important that staff are trained regularly in the correct handling, storage and use of the equipment.

Further information

Oxygen Kit Management and Best Practice Guidance – Thrive Spaces and Places

Templates:

- 10.6 Emergency and first aid equipment checklist
- 10.7 First aid, defibrillator and oxygen daily checklist
- 10.8 Oxygen kit checklist
- 10.9 Civil defence equipment checklist

6. Customer hygiene

Facility contamination by customers is a constant risk, which can be reduced by basic hygiene practices and customer education. Signage and information at the facility on health and hygiene practices reduces the likelihood of infections being spread through the facility.

Pool hygiene messages should include:

» No swimming for two weeks if customers have had diarrhoea.

» Taking children to the toilet before entering the pool.

» Putting babies in tight fitting togs or swimming nappies, not regular nappies.

» Telling staff if there has been a faecal accident in the pool.

» No underwear to be worn in pool.

Basic hygiene messages such as washing hands after going to the toilet or changing nappies, before handling food and showering can also reduce the risk of contamination to customers.

Figure 7: Hygiene information sign

Further information

Template: 10.10 What to Wear signage (Auckland Council)

7. Faecal incidents

Managing faecal incidents can be handled effectively and efficiently by staff following an established procedure. To reduce the likelihood of faecal incidents, especially in young children, encourage parents/caregivers to use appropriate swimwear. Swimwear designed especially for young children are available and could be available for sale at the facility.

Staff can be exposed to infectious material when dealing with a faecal incident. It is important that correct safety equipment, e.g. gloves, gumboots, disposable aprons are worn by staff when cleaning up from an incident.

There are different procedures according to the type of faecal incident.

7.1 Solids standard procedure

1. Inform pool users and reception.
2. Evacuate and isolate immediate area (affected pool).
3. Remove solids.
4. Remove all pool equipment/toys etc and disinfect.
5. Spot super-chlorinate (in excess of 100 mg/l) using a water can or similar.
6. Keep area clear for 30 minutes.
7. Ensure chlorine is adequately dispersed before allowing people to re-enter area. Spot test area to check chlorine dilution.
8. Ensure correct incident reporting procedure is followed.

7.2 Diarrhoea standard procedure

1. Inform pool users and reception.
2. Evacuate and isolate immediate area (affected pool).
3. Remove all pool equipment/toys etc and disinfect.
4. Remove any solids, vacuum to waste.
5. Increase FAC (free available chlorine) to no less than 5 mg/l.
6. Keep area clear, long enough for faecal matter to be removed by vacuum or turn-over (pool specific).

7. Ensure chlorine is adequately dispersed before allowing people to re-enter area.
8. Ensure correct incident reporting procedure is followed.

8. Cryptosporidium outbreak and other notifiable diseases

When a cryptosporidium or other notifiable disease outbreak occurs in the community or cases are associated with a pool, the local Public Health Service will contact the pool manager if there is a concern about risks to pools. During an outbreak the Public Health Service may ask the pool operator to test the water.

If any tests are positive, it is possible the facility will be asked to close. The Ministry of Health criteria for closing and re-opening swimming pools will be followed and administered by the Public Health Service and Environmental Officers for the local council in consultation with the pool manager.

If the test is negative the facility may remain open, unless advised otherwise. It is recommended that facility managers reinforce the message to customers regarding **not** using the pool if they have had diarrhoea in past two weeks.

In the event of an outbreak, a range of organisations can provide technical advice and guidance.

8.1 Cryptosporidium testing regime

If a pool is identified by the Public Health Service as a common risk factor, the facility may be asked to test the water. It is important to determine who pays for, and who is accredited to conduct the test.

Samples are often taken by a separate organisation, and care should be taken to ensure the pool manager and laboratory are satisfied that correct sampling procedure is followed. The internationally recognised test for *Cryptosporidium* is APHA 9711B. The sampling procedure should be provided by the laboratory carrying out the test. The quantity of water required for testing depends on the laboratory and can vary between 20L and 1000L of pool water.

It is important that pool managers ensure sampling equipment is cleaned thoroughly before each test, as specified by the accredited laboratory and according to APHA 9711B test method.

8.2 Testing laboratories

The Ministry of Health has advised that they currently recognise the following laboratories for testing Cryptosporidium.

Environmental Lab Services (Eurofins) PO Box 36-105, Moera, Lower Hutt 04 576 5016 or 0800 576 5016 info@eurofins.co.nz www.eurofins.co.nz
Watercare Services Laboratory PO Box 107-028, Manukau, Auckland 2150 09 539 7600 clientsupport@watercare.co.nz www.watercarelabs.co.nz
MicroAqua Tech Private Bag 11-222, Massey University, Palmerston North 06 356 9099, ext 81197

Further information

Public Health Contacts

Aquatic Specific Standards - Recreation Aotearoa

9. Incidents, common injuries and first aid

Staff need to be aware of all possible common injuries that could occur in an aquatic environment and the first aid treatment required for each injury. A comprehensive list of such injuries, how to identify and treat them is attached as a reference. These injuries are:

• Angina • Asthma • Bleeding • Cardiac arrest • Choking • Cramp	• Dislocation and fractures • Epilepsy • Fainting • Head injuries • Heart attack • Heat exhaustion	• Heat stroke • Hyperventilation • Hypoglycemia (diabetic shock) • Nose bleeds • Shock

Template: 10.11 Aquatic First Aid

9.1 Shallow water blackout

Shallow water blackout is the result of a lack of oxygen causing unconsciousness. The lungs deprived of oxygen suck any remaining oxygen from the blood supply, causing blackout quickly and often without warning to the victim.

Swimmers often breathe rapidly prior to submersion (hyperventilation) to lower the level of carbon dioxide in the body, which reduces the stimulation to breathe. While this is an important tool for free diving, swimmers inexperienced in this technique often exceed basic precautionary warning signs and deprive the body of vital oxygen stores.

Once submerged and underwater, a swimmer can be hidden from view of lifeguards. A series of events is then triggered, including the inhalation of water, possible convulsions, drowning and ultimately cardiac arrest and death.

Shallow water blackout can be avoided by ensuring that carbon dioxide levels in the body are properly calibrated prior to diving and that appropriate safety

measures are in place; this can be achieved if underwater swimmers/divers do the following:

» Alert the lifeguard to the intended activity.

» Do not hyperventilate prior to diving.

» Breathe normally. Allow the body to dictate the rate of breathing to ensure carbon dioxide levels are properly calibrated.

» Never swim alone. Dive in pairs, one to observe, one to dive.

» Buddy pairs must both know CPR.

Breath holding underwater is extremely dangerous and should not be undertaken by children or recreational swimmers. A seemingly innocent trick, game or competition can quickly become deadly. Whenever a lifeguard sees anyone performing a dangerous activity, it must be quickly stopped.

Case Study: WorkSafe Alert for swimming pools

This safety alert, received from WorkSafe, highlights the serious health and safety risks associated with any activity that could cause fainting or loss of balance near or in the water.

What happened

In July 2020, a seven-year-old boy drowned at a swimming complex in the North Island.

The boy had been swimming in a supervised pool. During a period of approximately three to four minutes the boy spun around and around in the water on a horizontal axis with his feet on the ground. As a result, he lost spatial awareness, causing him to sink below the water and drown.

The hazard of spinning and losing spatial awareness in an aquatic environment has not been widely identified as a risk in swimming pool complexes throughout New Zealand.

Spinning while in water can cause spatial disorientation which could lead to involuntary submersion and inhalation of water.

WorkSafe advice

We recommend all pool complexes immediately educate staff on the risk of people spinning or doing any activity that may cause them to faint or lose balance in, or near water.

Some considerations include:

» Consider implementing a system to readily identify children under the age of eight where active supervision by caregivers is required. For example, the use of wrist bands which identifies children who should be actively supervised to pool staff.

» Consider the use of information cards which can be given directly to caregivers outlining their responsibilities to actively supervise the children in their care. This may need to be in a variety of languages.

9.2 Procedure for notifiable event

If a death occurs at the facility, the EAP must clearly state the correct lines of reporting and communication plans for notifying the appropriate authorities, handling media and managing pool users.

Employers must notify WorkSafe NZ as soon as possible of workplace notifiable events. The WorkSafe website gives more detail on what a notifiable event is. In case of emergency, call WorkSafe NZ on freephone 0800 030 040 (24 hours) and choose option 1.

» If necessary, contact emergency services by phoning 111.

» If reporting a hazardous substances emergency, call the New Zealand Fire Service on 111 and then the WorkSafe NZ Response Team on 0800 030 040.

It is a legal requirement not to disturb an accident scene until clearance is authorised by a Health and Safety Inspector except in certain situations, including when persons or property are at risk, as provided for by Section 26 of the Health and Safety at Work Act 2015. If you require scene clearance or other immediate assistance from a Health and Safety Inspector, call 0800 030 040.

WorkSafe NZ must be provided with written notice of the circumstances of the accident or serious harm within seven days by using a notification form obtainable from their website. Notification can be either online or written.

Further information:

Notifiable events - WorkSafe

9.3 Incident communication plan

It is important that all NOPs contain a communication plan for situations of serious incident or death. Ensuring staff are fully conversant with the communication plan will help them if the situation eventuates. The communication plan will cover topics such as who to contact, areas of responsibility in relation to the facility, emergency services, the media and caring for the family members of victims.

Further information

Template: 10.12 Notifiable event flowchart

9.4 PoolSafe® serious incident review service

In cases where a serious incident has occurred, it is recommended you undertake an independent review of notifiable events at your facility, either by your health and safety staff or an independent organisation.

Recreation Aotearoa can link you with an independent organisation who can conduct a review. See PoolSafe Incident Review for details.

In addition, any notifiable incident at a PoolSafe® accredited pool must also be reported to Recreation Aotearoa using the following link:

Notifiable Incident Report Form

Christchurch City Council have shared their guidance on Serious Incident Staff and Patient Support. This contains documented processes to assist in post incident investigations.

CCC Serious Incident, Staff and Patient Support Process

10. Templates

10.1 PoolSafe® criteria and checklist report

PoolSafe® requirements include written and observed evidence. Specific PoolSafe® criteria is available to members and is reviewed and updated every year.

Documented evidence	Criteria	Method of assessment
Pool supervision	All lifeguards must hold current and valid PLSA or PLPC.	Sight current and valid PLSA or PLPC certificates for all lifeguards.
	Every body of water is supervised by a qualified lifeguard (when open for use), at all times.	Review facility normal operating procedures (NOPs) relating to supervision of pools, customers and activities. Facility schematics should be included, detailing: • recommended static positions • patrolling routes.
Emergency Action Plan (EAP)	Existence of an Emergency action plan.	Evidence of the EAP and staff training is clearly apparent.
Pool Alone	Existence of a policy relating to child supervision.	Review facility NOPs relating to child supervision.
Risk Management Plan	Existence of a pool water risk management plan.	Evidence of a pool water quality risk management plan (PRMP) is clearly apparent.
Health and Safety	Confirm the operation of a health and safety management process.	Review facility NOPs relating to health and safety.
Water Quality	Water testing programme compliant with NZS 5826:2010.	Review facility NOPs relating to water quality.

Observed evidence	Criteria	Method of assessment
Water quality	Confirmation that staff understand and apply the faecal accident procedure.	Questioning to verify that staff understand the faecal accident procedure.
Supervision	Confirmation that all pools are supervised according to NOP.	Visual check and questioning to verify that staff understand and apply pool supervision policy.
Emergency Action Plan	Confirmation that staff understand and apply the pools EAP.	Visual check and questioning to verify that staff understand EAP.
Pool Alone	Confirmation that staff understand and apply the pools child supervision policy.	Visual check and questioning to verify that staff understand child supervision policy.
Health and Safety	Confirmation that staff understand and apply the pools health and safety policy.	Visual check and questioning to verify that staff understand health and safety policy.

10.2 Health and safety report form

AC - Investigation of Personal Health and Safety Reports

Is an investigation required for the event described overleaf?	Who should undertake the investigation?
An investigation is required if the event described involves... • An employee, volunteer, contractor, sub-contractor or "on-loan" worker • A serious harm injury to a member of the general public • Any near miss or injury accident that may have been contributed to by Council facilities or staff. **If the above circumstances don't apply – no investigation is required.**	• The designated leader for the workplace. • *And* an elected and trained health and safety representative. ***The seriousness of the event will dictate the need for other personnel or external specialists to be involved in the investigation. If in doubt – contact your H & S Advisor***
Complete Part A *and* B if an investigation *is* required	**Complete Part B if an investigation is *not* required**

Part A — Investigation Form

Further Background Details

List below names of witnesses and/or any others involved in the event	Name of supervisor(s) at the time of the event

Causes Identified – Checklists *(tick all causes identified)*

Immediate Causes - *What actions and/or conditions caused or could have contributed to this event?*

Contributing Actions Identified		Contributing Conditions Identified	
☐ Using equipment improperly	☐ Other	☐ No written procedures in place	☐ Other
☐ Using equipment without authority		☐ Inadequate induction/training for task	
☐ Improper lifting		☐ Poor housekeeping – disorder	
☐ Improper position for task		☐ Congestion or restricted action	
☐ Improper loading		☐ Inadequate or excess illumination	
☐ Improper placement		☐ Inadequate ventilation	
☐ Using defective equipment		☐ Inadequate guards or barriers	
☐ Operating at improper speed		☐ Inadequate or improper ppe	
☐ Failure to follow procedures for the task		☐ Defective tools, equipment or materials	
☐ Failure to use ppe at all or used improperly		☐ Inadequate warning system	
☐ Failure to warn		☐ Fire and explosion hazards	
☐ Failure to secure		☐ Hazardous environmental conditions, gases, dust, smoke, fumes, vapours.	
☐ Making safety devices inoperable		☐ Noise exposure	
☐ Removing safety devices		☐ Radiation exposure	
☐ Horseplay		☐ High or low temperature exposure	
☐ Under influence of alcohol or other drugs		☐ Wear and tear	

Basic Causes – *What specific personal or job factors caused or could have contributed to this event?*

Personal Factors Identified		Job Factors Identified	
☐☐Lack of knowledge	☐ Other *(list all other factors)*	☐ Lack of leadership/supervision	☐ PPE not supplied
☐ Lack of skill		☐ Inadequate work standards	☐ Abuse
☐ Improper motivation		☐ Inadequate purchasing	☐ Other *(list all other factors)*
☐ Inadequate capability		☐☐Inadequate engineering	
☐ Stress		☐ Inadequate maintenance	
		☐ Inadequate tools/equipment	
		☐ Unclear role	
		☐ Incorrect design	

Description of Causes Identified *(if required)*

Preventative Action Plan *What action has or will be taken to prevent a recurrence?*

Action	By Whom	By When

Names of Investigators	Date of Investigation

Part B — Manager or Designated Leader to Complete

Name	Signature	Date

Send this completed form to the your H&S Advisor on the day of occurrence or notification

Copy sent to

☐ Natasha King,
☐ Michael Groom
☐ Centre Manager
☐ If serious accident, also send a copy to Group Manager

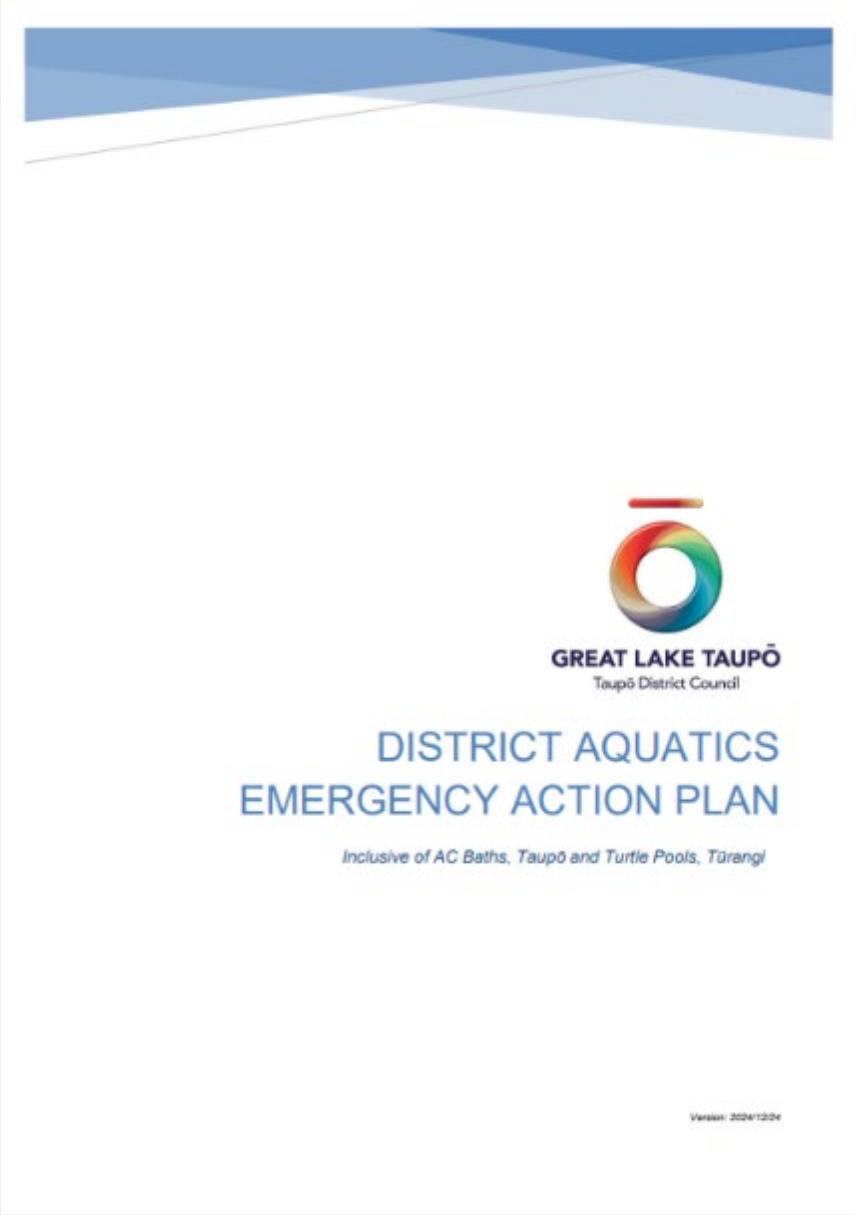
10.3 Hazard identification form

Lane Pool	Hazard	Potential harm	Significant hazard	Practical to eliminate	All practical steps to minimise	Controls required, action proposed
Lane ropes	Injury	No	No	No	Yes	check, maintenance
Diving blocks						
Roll out channel (if broken)						
Broken / loose tiles						
Entry ladders						
Pool						

10.4 Emergency action plan

The Taupō District Council's Emergency Action Plan for the AC baths is an exemplar for an aquatic facility and details the different scenarios to be considered and included.

Emergency Action Plan – AC Baths Taupō District Council



10.5 Pool rescues report

A dry rescue is a rescue performed from poolside using a rescue aid such as throw rope, reach pole etc. and no further treatment or follow up is required with the person rescued. If a hazard has been identified as a cause or during the rescue, please follow standard hazard identification procedures.

Name	Address	Phone	Staff member	What happened

10.6 Emergency and first aid equipment checklist

Emergency equipment

Essential equipment	• First aid kit(s) • Spinal board • Reach pole • Rescue tube • Evacuation kit
Optional equipment (recommended)	• Defibrillator (AED) • Oxygen • Rope throw bags • Lifeguard bum bags (containing whistle, plasters, notebook, pen, antiseptic wipes, resuscitation mask, disposable gloves)

First Aid checklist

Equipment	Quantity	Checked (sign)
Adhesive plasters	Min 6	
Antiseptic towel	Min 6	
Wound dressing	Min 3 rolls	
Triangular bandage	Min 1	
Sterile irrigation	Min 4	
Med sized gloves	Min 2 pairs	
Survival blanket	1	
Roll of bandage tape	1	
Scissors	1	

10.7 First aid, defibrillator and oxygen daily checklist

Location, condition and supply checklist Month:					
Date	**First aid**	**Oxygen**	**Defibrillator**	**Staff sign**	**Comments**
1st					
2nd					
3rd					
4th					
5th					
6th					
7th					
8th					
9th					
10th					
11th					
12th					
13th					
14th					
15th					
16th					
17th					
18th					
19th					
20th					
21st					

Location, condition and supply checklist			**Month:**		
Date	**First aid**	**Oxygen**	**Defibrillator**	**Staff sign**	**Comments**
22nd					
23rd					
24th					
25th					
26th					
27th					
28th					
29th					
30th					
31st					

10.8 Oxygen kit checklist

Equipment	Quantity	Date	Checked (sign)
Oxygen bottle	1		
Bag mask	1		
Oxygen therapy mask adult	1		
Oxygen therapy mask child	1		
Oxygen therapy mask baby	2		
Hi oxygen mask	1		
Yoga mat	1		
Container of OPA	1 (of 8)		
Scissors	2		
Bag of gloves	1		
Stethoscope	1		
Blood pressure cuff kit	1		
Patient assessment guide	1		
Oxygen/defibrillator checklist	1		
Defibrillator	1		

10.9 Civil defence equipment checklist

This equipment can be stored in a wheelie bin and located by emergency exit doors. Quantities are for 50 people.

Contents	Quantity	Date	Checked (sign)
Water	10L		
Disposable cups	50		
Tarp 3.6 x 3.6m	3		
Sturdy torch and batteries	1		
Spare batteries	1		
Emergency blankets	50		
Hand sanitiser (250mls)	2		
Disposable gloves (box)	1		
First aid kit (large)	1		
Dust masks	50		
Duct tape	2 rolls		
Notebook and pen	1		
Permanent marker	2		
Sledgehammer	1		
Crowbar	1		
Glass cutting resistant gloves	1 pair		

10.10 What to wear signage

Figure 8: What to wear signs

10.11 Aquatic first aid

Condition	Characteristics	Treatment
Angina	• Similar symptoms to a heart attack. • Condition often known to the victim. • Often triggered by exercise.	• Same as for heart attack. • Assist victim with medication.
Asthma	• Constriction of the inner airway, causing victim to wheeze and dry cough. • Victim will often know the symptoms.	• Reassure and help with medication while patient is sitting or leaning forward. • Encourage slow relaxed breathing: if symptoms persist seek medical attention.
Bleeding	• Blood loss (internal and external). • Internal bleeding may be characterised by swelling, hard lumps, pain and discomfort. • Other symptoms the same as shock.	• External – rest and reassure victim; elevate wound, cover and apply direct pressure and call emergency services. • Internal – treat as shock. • Call emergency services.
Nosebleed	• Blood loss (internal and external). • Internal bleeding may be characterised by swelling, hard lumps, pain and discomfort. • Other symptoms the same as shock.	• Sit, lean forward, head tilted forward and breathe through mouth. • Apply pressure to soft part of nose to stop blood flow. • Reassess after 3 minutes. • Seek medical attention if bleeding persists.

Condition	Characteristics	Treatment
Cardiac arrest	• Heart stops beating, no breathing, pulse or response to stimulation or signs of life.	• CPR or defibrillation. • Call emergency services.
Choking	• Blockage of the airway. • Victim is having difficulty breathing, look of fear and grabbing at throat, possibly a laboured breathing or grasping sound. • May begin to turn blue in colour around lips.	• Assess victim “can you breathe”, “are you choking,” check for obvious airway blockages. • Support victim: apply up to 5 back blows and up to 5 abdominal thrusts (Heimlich). If unsuccessful and victim loses consciousness assess situation and begin resuscitation. Take care to check the airway.
Cramp	• Muscles tightening involuntarily.	• Gentle stretching/extension of the muscle. • Gently massage the area.
Dislocations and fractures	• Localised pain, deformities, shock, lack of movement and swelling.	• Make victim comfortable, support injured area and do not attempt to move joint. • Treat for symptoms such as shock. • Depending on seriousness call emergency services.
Epilepsy	• Short circuit of the brain causing symptoms including fitting, convulsions and rigid motionless.	• In water: From behind keep victims face above water until seizure subsides. Monitor signs of life. • Out of water: Move obstructions and keep victim safe until seizure subsides. Monitor signs of life.

Condition	Characteristics	Treatment
Fainting	• Temporary lack of blood to the brain commonly caused by over exertion, exiting spa pools and saunas too quickly, and dehydration.	• Unconscious: Assess situation and monitor signs of life. • Conscious: Lie victim down, elevate legs, check condition is not shock and check for secondary injuries. • Victim to rest and possibly give sips of water.
Head injuries	• Common in pools due to slippery floors. • Victim may experience confusion, pain, decreasing level of consciousness, swelling and bleeding (internal and external). • Skin becomes ashen in colour. • Shortness in breath may occur.	• Make victim comfortable and check for cause. • Assess extent of injury and treat accordingly (could it be a spinal?). • Seek or advise further medical care for all head injuries. • Call emergency services.
Heart attack	• Lack of blood supply to the heart. • Pressure, tightness in chest, pain radiating out from chest to shoulders, face and arms. • Sweating, clammy skin, vomiting, breathing and fainting. • May lead to cardiac arrest.	• Make victim comfortable in seated position with legs raised. • Keep warm and reassure. • Ask victim for medication. • Monitor ABC and call for emergency services. • If victim losses consciousness assess situation and monitor signs of life.

Condition	Characteristics	Treatment
Hyper ventilation	• Too much and too rapid breathing. • Common where swimmers have swum long distances underwater. • Over excitement may be cause. • Risk of victim blacking out or fainting.	• Monitor ABCs. • Calm and reassure victim. • Ask victim to breath slowly and controlled.
Hypoglycaemia (diabetic shock)	• Low sugar level in bloodstream. • Signs and symptoms are similar to shock. • Victim may become aggressive.	• Victim is often known as a diabetic and may request sugar. • If consciousness is lost, assess situation. • Check ABCs.
Shock	• Inadequate blood supply around the body often associated with trauma or a severe allergic reaction. • Rapid yet shallow breathing, rapid weak pulse, victim may vomit, feels faint with clammy cold skin.	• Lie victim down, legs elevated. • Assess victim for the cause and treat. • Monitor signs of life and vomiting may occur. • If consciousness is lost assess situation and check signs of life. • In case of an allergic reaction call emergency services immediately.

Condition	Characteristics	Treatment
Stroke	• Interrupted blood flow to the brain. • Paralysis to one side of face and/or body. • Loss of bladder and bowel control, difficulty speaking, one side of face goes limp, dizziness, headache and/or loss of consciousness. • Face – when smiling, one side droops. • Arms – one arm drifts downward. • Speech – slurred. • Tongue – hangs to one side.	• Assist victim to a comfortable semi-prone position with head up. • Call emergency services. • If consciousness is lost assess situation and check signs of life.
Heat exhaustion	• Too long spent in hot surroundings with insufficient care and liquid intake. • Victim may have headache, exhausted but restless. • Stomach cramps, with pale, cold, clammy skin. • Breathing shallow and with rapid weak pulse.	• Victim to lie down in cool place. • Encourage sipping of liquid soft drink with little salt added.
Heat stroke	• As per heat exhaustion. • Unconsciousness may occur and victim will have a high temperature. • Pulse will be full and bounding and noisy breathing.	• Victim to be placed in cool environment. • If unconscious check ABCs. • Douse body in cold water and/or cover with wet sheet or blanket.

10.12 Notifiable event flowchart

Serious incident or death occurs