Aquatic Facility Safety Plan Template

A Guide for Operators

Reducing Risk and Promoting Healthy Recreational Water Experiences

NOVA SCOTIA

Disclaimer

This aquatic safety plan has been adapted with permission by the British Columbia Ministry of Health.

This document addresses some common situations that occur in aquatic facilities. It does not address every situation that may occur. Adapt this material to your specific facility and the expected minimum aquatic industry standards.

Table of Contents

Background

Operating an aquatic facility has become progressively more complex with the increased use of water recreational facilities, the introduction of waterslides, water rides, wave pools, and water spray play areas. The increased complexity of pool equipment, treatment systems and the emergence of chlorine resistant pathogens add to this complexity. This increases the potential of hazards and increases the risk of a recreational water illness and injury (RWII).[1]

A Hazard is a set of circumstances that could lead to injury, illness or loss of life. A risk is the probability that harm will occur as a result of exposure to a hazard.

Aquatic facilities present a variety of serious physical, chemical and microbiological hazards for which there are substantial risks. These hazards exist because of poor pool design, construction, and/or inadequate operation. Exposure to hazards involves inhalation, ingestion or dermal contact. All can increase the risk of recreational water illness, which can range from mild to severe, and which can be lethal (WHO, 2006).

Hazard identification, hazard mitigation, and risk reduction policies/strategies are essential to establish and maintain a healthy pool environment. An Aquatic Facility Safety Plan can be a tool to help identify facility specific hazards with the goal of hazard mitigation and risk reduction.

What is an Aquatic Facility Safety Plan?

An Aquatic Facility Safety Plan is a written document that is specific to each aquatic facility. The document provides information and describes actions aimed at protecting the health and safety of pool users.

An Aquatic Facility Safety Plan provides

- clear procedures for staff training, ongoing maintenance and upkeep of the facility
- actions to reduce the chance of harmful events
- instructions for responding/assisting to pool-related events and/or incidents

All the above may affect health and safety of pool patrons and staff.

What do I need to do as an aquatic facility owner, operator, manager?

An aquatic facility owner/operator/manager is responsible for the development of an Aquatic Facility Safety Plan specific for the facility. This will involve maintenance technicians and pool staff, given their familiarity with the day-to-day operation of the pool. It also may require the assistance of risk assessment expertise, such as those associated with any professional lifeguarding service providers. Once the Aquatic Facility Safety Plan is written, it must be implemented. This involves training staff, reviewing and updating the plan at least annually, making any required changes, and ensuring that a copy of the Aquatic Facility Safety Plan is always available onsite in a recognized location.

Remember: You may already have a lot of this information in place for your aquatic facility. The Aquatic Facility Safety Plan brings all the information together in a single document.

The plan should be easy to use (e.g., in a binder with tabs for each section).

1 Wellness, A. H. (2006). *Alberta Pool Standards.* Retrieved June 2011, from Alberta Health and Wellness: www.health.alberta.ca/documents/Standards-Pools.pdf

Section 1 – Aquatic Facility Characteristics

This section provides easy access to specific details of the pool(s) in the facility.

Check all boxes that apply and fill in the missing information. If the pool information is not up to date, calculations may be necessary.

Section 1 – Aquatic Facility Characteristics

1.1 Aquatic Administration / Information

Facility Name:	
Facility Address:	
Aquatic Facility Safety Plan Prepared by:	Date:
Last Reviewed/Updated by: *(Required at least once a year)*	Date:

Additional Information (if required)

Section 1 – Aquatic Facility Characteristics

1.1 Aquatic Administration / Information

Management Structure and Staff Trained in Aquatic Facility Safety Plan *(Update as required)*

By initialing below, I acknowledge that I have reviewed the Aquatic Facility Safety Plan and understand the sections relevant to my duties.

Job Title:	Report to:
Job Description/Relevant to Duties:	
Staff Training/Certification Requirements:	
Staff Name:	Initials:

Job Title:	Report to:
Job Description/Relevant to Duties:	
Staff Training/Certification Requirements:	
Staff Name:	Initials:

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Job Description/Relevant to Duties:	
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Section 1 – Aquatic Facility Characteristics

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Staff Training/Certification Requirements:	
Staff Name:	Initials:

Section 1 – Aquatic Facility Characteristics

1.1 Aquatic Administration / Information

Operation and Maintenance Responsibilities Related to Facility

Job Title or Company: *(e.g., pool operator, responsible person, building engineer, housekeeping, ACME Pool Company)*	
Duties: *(e.g., clean deck, test pool chemistry, monitor and repair equipment as needed)*	Reporting to:
Training/Certifications Required for Job Duties: *(refer to Appendix 3 for examples)*	
Current Employee Name:	Initials:

Job Title or Company:	
Duties:	Reporting to:
Training/Certifications Required for Job Duties: *(refer to Appendix 3 for examples)*	
Current Employee Name:	Initials:

Job Title or Company:	
Duties:	Reporting to:
Training/Certifications Required for Job Duties: *(refer to Appendix 3 for examples)*	
Current Employee Name:	Initials:

Section 1 – Aquatic Facility Characteristics

1.1 Aquatic Administration / Information

Programming Personnel

Job Title or Company: *(e.g., swim instructor, other)*	Reporting to:
Duties: *(e.g., clean deck; test pool chemistry; monitor and repair equipment as needed)*	
Training/Certifications Required for Job Duties: *(refer to Appendix 3 for examples)*	
Current Employee Name:	Initials:

Job Title or Company:	Reporting to:
Duties:	
Training/Certifications Required for Job Duties: *(refer to Appendix 3 for examples)*	
Current Employee Name:	Initials:

Job Title or Company:	Reporting to:
Duties:	
Training/Certifications Required for Job Duties: *(refer to Appendix 3 for examples)*	
Current Employee Name:	Initials:

Section 1 – Aquatic Facility Characteristics

1.1 Aquatic Administration / Information

Lifeguard, Assistant Lifeguards, Attendants

It is the responsibility of the aquatic facility operator/owner to hire lifeguards who are appropriately trained for their position and nature of responsibilities. This will help ensure the safety of pool patrons.

Job Title or Company: *(e.g., supervisory lifeguard, lifeguard, assistant lifeguard, other)*	Reporting to:
Duties:	
Training/Certifications Required for Job Duties:	
Current Employee Name:	Initials:

Job Title or Company:	Reporting to:
Duties:	
Training/Certifications Required for Job Duties:	
Current Employee Name:	Initials:

Job Title or Company:	Reporting to:
Duties:	
Training/Certifications Required for Job Duties:	
Current Employee Name:	Initials:

Section 1 – Aquatic Facility Characteristics

1.1 Aquatic Administration / Information

Lifeguard and Assistant Lifeguard Training and In-Service Training
Training may include, but is not limited to regular in-service training and specialized training, including scuba and other training through agencies like the Royal Lifesaving Society or Red Cross.

Training and In-Service Registry

Staff Name:	
Type of Training or In-Service Completed:	
Phone Number:	Date:

Staff Name:	
Type of Training or In-Service Completed:	
Phone Number:	Date:

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Section 1 – Aquatic Facility Characteristics

1.1 Aquatic Administration / Information

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Section 1 – Aquatic Facility Characteristics

1.2 Pool Details

Provide details for each pool in the facility.

<table>
<tr><td rowspan="2">Pool 1</td><td colspan="4">Pool Name or Description: (e.g. main pool, hot tub)</td></tr>
<tr><td colspan="3">Facility</td><td>Date Constructed:</td></tr>
<tr><td>Pool Type</td><td>☐ Indoor
☐ Outdoor</td><td colspan="3">Choose one of the following:
☐ Public Pool ☐ Hot Tub ☐ Spray Pool (Recirculating)
☐ Wading Pool (< 61 cm depth) ☐ Spray Pool (Non-recirculating)
☐ Other Pool Type _____</td></tr>
<tr><td>Months of Operation</td><td colspan="4">12 months ☐ or List months of operation: _____ to _____</td></tr>
<tr><td colspan="2">Bather Load
(Refer to Appendix 2)</td><td>Area of Pool</td><td>Volume</td><td>Depth
Minimum _____
Maximum _____</td></tr>
<tr><td>Flow Rate</td><td colspan="4">Correct flow meter readings confirm flow through the main drain will not create a suction hazard and is adequate for the correct turnover rate. The flow rate can be found on the pool data sheet.
• All pools should have at least one flow meter.
• Hot tubs should have at least two flow meters.
• Pools with water features may have additional flow meters.</td></tr>
<tr><td></td><td colspan="4">Pool recirculation: _____ or Hot tub recirculation: _____
Water features: _____ Hot tub hydro air: _____</td></tr>
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<tr><td rowspan="2">Pool 2
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☐ Wading Pool (< 61 cm depth) ☐ Spray Pool (Non-recirculating)
☐ Other Pool Type _____</td></tr>
<tr><td>Months of Operation</td><td colspan="4">12 months ☐ or List months of operation: _____ to _____</td></tr>
<tr><td colspan="2">Bather Load
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Minimum _____
Maximum _____</td></tr>
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Water features: _____ Hot tub hydro air: _____</td></tr>
</table>

Section 1 – Aquatic Facility Characteristics

1.3 List of Equipment and Amenities

Items listed should be detailed in the Operation, Maintenance and/or Prevention sections of the Aquatic Facility Safety Plan.

Pool 1 Check all that apply:	☐ Diving Board(s) # _____ ☐ Starting Blocks ☐ Ladder(s) # _____ ☐ Rope Swing(s) # _____ ☐ Chair Lift ☐ Sauna ☐ Inflatable Play Equipment ☐ Underwater Lighting ☐ Bulkhead	☐ Slides over 10 ft. height ☐ Slides under 10 ft. height ☐ Portable Stairs ☐ Climbing Wall ☐ Ramp Entry ☐ Steam Room ☐ Spectator Seating ☐ Underwater Platforms	☐ Other Features _____ ☐ _____ ☐ _____ ☐ _____ ☐
Pool 2 ☐ N/A Check all that apply:	☐ Diving Board(s) # _____ ☐ Starting Blocks ☐ Ladder(s) # _____ ☐ Rope Swing(s) # _____ ☐ Chair Lift ☐ Sauna ☐ Inflatable Play Equipment ☐ Underwater Lighting ☐ Bulkhead	☐ Slides over 10 ft. height ☐ Slides under 10 ft. height ☐ Portable Stairs ☐ Climbing Wall ☐ Ramp Entry ☐ Steam Room ☐ Spectator Seating ☐ Underwater Platforms	☐ Other Features _____ ☐ _____ ☐ _____ ☐ _____ ☐
Pool 3 ☐ N/A Check all that apply:	☐ Diving Board(s) # _____ ☐ Starting Blocks ☐ Ladder(s) # _____ ☐ Rope Swing(s) # _____ ☐ Chair Lift ☐ Sauna ☐ Inflatable Play Equipment ☐ Underwater Lighting ☐ Bulkhead	☐ Slides over 10 ft. height ☐ Slides under 10 ft. height ☐ Portable Stairs ☐ Climbing Wall ☐ Ramp Entry ☐ Steam Room ☐ Spectator Seating ☐ Underwater Platforms	☐ Other Features _____ ☐ _____ ☐ _____ ☐ _____ ☐

Section 1 — Aquatic Facility Characteristics

1.3 List of Equipment and Amenities

Pool data sheets, engineered plans, and pool drawings should be included if available.

Location of pool data sheets: *(Recommendation—Post a laminated copy in the filter room)*
Location of engineered plans and/or pool drawings:

Additional Information (if required)

Section 1 — Aquatic Facility Characteristics

This space may be used to record additional information and/or details that are specific to your facility.

Section 2 – Pool Operation and Maintenance

The intent of this section is to:

- Provide written operating and maintenance procedures to ensure the health and safety of pool patrons and staff.
- Provide information regarding the equipment and supplies needed and how to handle them correctly and safely.

Section 2 — Pool Operation and Maintenance

2.1 Closure Policy – When to Close the Pool to Swimmers

- All staff should know when to close a pool. **There shall be a designated responsible person on duty all hours the pool is open. This designated person shall have the authority to close the pool.**
- The safety of the swimmers must always be considered when making this decision.
- Keep '**POOL CLOSED**' signs handy.
- When in doubt, close the pool and assess the situation. Seek guidance from other professionals if needed to correct the problem.
- Only reopen the pool when you know it is safe to do so.

Section 2 – Pool Operation and Maintenance

2.1 Closure Policy – When to Close the Pool to Swimmers

Criteria for Immediate Closure of a Pool

Designated positions with authority to close are: _____

A swimming pool is subject to immediate closure when any of the following conditions are observed:

Issue	Risk
Unsecured pool enclosures – shall be self-closing and self-latching gates	• Risk of drowning
Emergency telephone or alarm system missing or malfunctioning (where applicable)	• No means to get help
No or malfunctioning automatic shut off for high risk venues and hot tub (spas)	• Risk of entrapment, evisceration, and drowning
Life-saving safety equipment not available or not in good repair	• Unable to assist in an emergency situation
Lack of supervisory personnel and/or required lifeguards, or the required number of lifeguards is not available (where applicable)	• Risk of drowning or serious injury
Poor water clarity is insufficient to clearly see the main drain of the pool and/or the pool fails the black disc test	• Swimmer cannot see bottom increasing risk of injury • Unable to see if a person is in trouble under the water increasing risk of drowning • Indication of ineffective disinfection and/or filtration system
Lack of disinfectant residual in pool water and no disinfectant is available on site to resolve the issue	• Risk of disease transmission
pH outside of acceptable range: pH of above 8 mg/l or below 6 mg/l and no product to bring pH to appropriate range	• pH has a dramatic effect on water quality and the effectiveness of the disinfectant
Fecal (solid or diarrheal), vomit, or chemical release in the pool (see fact sheets)	• Risk of disease transmission or injury
Filtration or circulation system is not operative or is malfunctioning	• Risk of disease transmission • Increased risks of high turbidity interfering with clarity of pool • Diminishes the ability of proper disinfection
Missing or damaged drain cover or fittings	• Suction entrapment and entanglement risk • Drowning risk
Ground Fault Circuit interrupter missing or malfunctioning	• Electrical shock hazard
Improper chemical storage	• Improper or incompatible storage of chemicals can create a risk of fire, explosion, release and personal injury to anyone in or around the facility
Other Hazardous Conditions	• Risk of physical injury, such as power outage, broken glass, severe weather at outdoor site (thunder and lightning), water too hot in spas, or any other imminent health risk

Section 2 — Pool Operation and Maintenance

2.1 Closure Policy – When to Close the Pool to Swimmers

Any additional reasons for closure:

Section 2 — Pool Operation and Maintenance

2.2 Aquatic Water Chemistry

It is important to check pool chemistry on a regular basis to maintain pool water parameters within the acceptable ranges. This will help:

- promote adequate disinfection and good water clarity
- keep pool chemistry balanced
- reduce corrosion and scaling (this lowers long-term costs)

Appendix 3, Pool Parameters, of the Nova Scotia Operational Guidelines for Aquatic Facilities can be used as guidance.

Remember, your pool may need more frequent testing depending on the bather load, temperature, type of use, and type of pool.

It is important to use an approved test kit to check chemistry. Record your daily chemistry tests in a recording log and keep this as a reference.

You can attach your facility log sheet as an appendix.

Section 2 – Pool Operation and Maintenance

2.2 Aquatic Water Chemistry – Pool Water Chemistry Requirements

Parameters Requiring Testing	Testing Frequency	Minimum Test Results Required	Ideal Range
pH			
Alkalinity			
Cyanuric Acid [2]			
Salt Concentration			
UV reading			
Oxidation-Reduction Potential (ORP)			
Temperature			
Calcium Hardness			
TDS			
Clarity			
Pool Disinfectant [3]			
Free Available Chlorine			
FAC Increased Risk Venues			
FAC – Chlorine Cyanurate (stabilized chlorine – outdoor pool only)			
Combined Chlorine			
Bromine			
Spa Disinfectant			
Free Available Chlorine			
Combined Chlorine			
Bromine			
Other			
Other			

2 Check only if a stabilizer is used; not recommended with indoor pools.
3 Depending upon the product used, one of the listed disinfectant levels must be checked. Although the testing procedures are the same, required levels of disinfectant are higher if stabilized chlorine is used.

Section 2 – Pool Operation and Maintenance

2.3 Aquatic Water Test Kit and Reagents

- Have step-by-step written instructions on how to use the pool test kit. Keep a copy of your instructions in your Aquatic Facility Safety Plan and one in your test kit. Water often damages instructions.
- All reagents have a limited shelf life and you need to know what the shelf life is. Consult manufacturer's instructions. Complete the shelf life table below.
- Write the correct expiry date on each bottle upon opening *(e.g., add 6 months to the date of purchase).*
- Store your reagents according to the manufacturer's directions. Do not switch the reagent caps. Store in a cool, dark place, avoiding temperature fluctuations.
- Make sure your colour comparator and vials are in good condition with no discoloration or cracks.

Additional sheet attached.

Reagent Shelf Life *(Refer to test kit reagent instructions for use)*

Name of Reagent	Shelf Life (months)

2.3 Aquatic Water Test Kit and Reagents

Provide step-by-step written instructions on how to use the test kit and take readings.

Name and Type of Test Kit:

Section 2 – Pool Operation and Maintenance

2.4 Aquatic Water Chemical Adjustment

Being able to effect change in your pool water chemistry, when needed, quickly is key to smooth aquatic operation. Knowing your pool volume will help determine how much of each chemical to use. Post the pool volume where the chemicals are stored so that it is handy for calculations.

Note: Chemicals must be used according to label instructions and in compliance with WHMIS.

If an outside company maintains the pool, describe when the company should be called to troubleshoot and who should be called. This is particularly important on weekends and holidays.

Provide step-by-step written instructions on how to adjust pool chemistry from startup:

☐ Additional sheet attached N/A ☐ Maintained by pool company

Provide product-specific procedures for troubleshooting:

☐ Additional sheet attached N/A ☐ Maintained by pool company

2.4 Aquatic Water Chemical Adjustment

Provide product-specific procedures for troubleshooting:

Provide product-specific procedures for troubleshooting:

2.4 Aquatic Water Chemical Adjustment – Trouble Shooting *(Attach additional sheets as required)*

Problem	Possible Cause	Remedy
ALGAE GROWTH • green algae • slippery walls • algae stains • black algae	Hot sunny weather	Maintain free available chlorine (FAC).
	Pool temperature too high	Keep below 26.7°C (80°F).
	Poor circulation (dead spots in pool)	Reposition directional outlets and check efficiency of pump. Hand dose corners. Check flow rate.
	Low wet spots on deck	Eliminate, if possible. Hand dose with dry chlorine.
	Low free available chlorine (FAC)	Maintain a FAC greater than 5.0 ppm overnight. Brush walls vigorously, then vacuum. Add algicide and adjust pH.
	Total available chlorine (TAC) mostly made up of combined available chlorine (CAC)	Superchlorinate. Maintain FAC and combined chlorine (CC) at recommended concentrations.
ATHLETE'S FOOT		
CARBONATE PRECIPITATE •scale/cloudy/residue		
CHLORINE CONSUMPTION HIGH		

Section 2 – Pool Operation and Maintenance

2.4 Aquatic Water Chemical Adjustment – Trouble Shooting *(Attach additional sheets as required)*

Problem	Possible Cause	Remedy
CHLORINE RESIDUAL TOO HIGH		
CHLORINE RESIDUAL LOW		
CHLORINE ODOUR, SWIMMER'S EYE AND SKIN IRRITATION		
CLOUDY WATER	High CC	Superchlorinate.
	pH too high	Lower pH.
	Total alkalinity too high	Reduce until balanced.
	Calcium hardness too high	Lower until balanced.
	Extremely small particles in pool water caused by storm	Floc sand with clear-aid or alum.
	Poor circulation in certain areas	Readjust directional ball inlets
	Excessive total dissolved solids	Dilution Drain and fill
	In pools using diatomite filters, it is usually due to diatomaceous earth in the pool. Faulty pre-coat procedures to broken or torn elements are the usual cause.	Check and/or repair filter elements. Check and adjust pre-coat procedures.
	Improper application of non-chlorine shock treatment chemicals	Follow manufacturer's instructions. Use calcium hypochlorite.

2.4 Aquatic Water Chemical Adjustment – Trouble Shooting *(Attach additional sheets as required)*

Problem	Possible Cause	Remedy
CLOUDY RED-BROWN WATER		
COLOURED WATER – BROWN, BLUE, BLACK *(usually after initial filling of pool)*		
COLOURED WATER GREEN		
COLOURED WATER MURKY BROWN		
CORROSIVE WATER • corroded/stained fixtures • pump/heater pipe corrosion		

2.4 Aquatic Water Chemical Adjustment – Trouble Shooting *(Attach additional sheets as required)*

Problem	Possible Cause	Remedy
GREEN HAIR		
pH DIFFICULT TO READ		
pH DROPPING		
pH FLUCTUATING		
pH HIGH		
pH LOW		

2.4 Aquatic Water Chemical Adjustment – Trouble Shooting *(Attach additional sheets as required)*

Problem	Possible Cause	Remedy
SAND IN POOL		
SCALE FORMATION ON POOL WALLS OR EQUIPMENT		
SCUM ON POOL WALLS		
SLIPPERY POOL DECKS		
TURBIDITY		
WHITE RING AROUND THE WATER LEVEL TILE		

Section 2 – Pool Operation and Maintenance

2.4 Aquatic Water Chemical Adjustment – Trouble Shooting *(Attach additional sheets as required)*

Problem	Possible Cause	Remedy

Section 2 – Pool Operation and Maintenance

2.5 Safe Handling of Chemicals

Provide step-by-step written procedures for the safe handling of chemicals and storage. Describe how to safely add chemicals directly to the pool. If you are a small facility with few chemicals on site then only basic information may be needed. The greater the volume of chemicals used, the more detailed this section needs to be.

Always read and follow label directions.

Tip: Use a highlighter to make the important items easier to find on the Material Safety Data Sheet (MSDS).

Chemicals used: *(e.g., sodium hypochlorite)*
Essential Information / Precautions: *(e.g., Corrosive, causes severe eye injury, skin burns, and respiratory burns. Do not mix with muriatic acid. Chlorinator tank requires containment. Storage procedures:)*
Required Personal Protective Equipment:

Chemicals used:
Essential Information / Precautions:
Required Personal Protective Equipment:

Section 2 – Pool Operation and Maintenance

2.5 Safe Handling of Chemicals

Chemicals used:
Essential Information/Precautions:
Required Personal Protective Equipment:

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Essential Information/Precautions:
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Section 2 – Pool Operation and Maintenance

2.5 Safe Handling of Chemicals

Chemicals used:
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Essential Information/Precautions:
Required Personal Protective Equipment:

Section 2 – Pool Operation and Maintenance

2.6 Preventative Maintenance of Mechanical Equipment

Record in a daily log when maintenance was done.

Location of installation and operating manuals: _____

The following table should be used as a guide to make a Mechanical Maintenance Schedule for a particular facility. The list provides examples of equipment that may be found in your facility and is not intended to be a complete list.

Equipment: Filters

Model # / Type:
What Needs to be Checked: *(e.g., filter media functioning, no grease build-up in sand, backwash gauges)*
Maintenance Frequency: *(e.g., replace sand every 2 years)*

Equipment: Chemical Feeder

Model # / Type:
What Needs to be Checked: *(e.g., tubing, build-up of minerals, clogging)*
Maintenance Frequency:

2.6 Preventative Maintenance of Mechanical Equipment

Equipment: Ozone

Model # / Type:
What Needs to be Checked:
Maintenance Frequency:

Equipment: Pumps

Model # / Type:
What Needs to be Checked: *(e.g., hair and lint strainer, cavitation, unusual noise, leaks)*
Maintenance Frequency:

Equipment: Water Heater

Model # / Type:
What Needs to be Checked: *(e.g., scaling/corrosion)*
Maintenance Frequency:

2.6 Preventative Maintenance of Mechanical Equipment

Equipment: Ventilation

Model # / Type:
What Needs to be Checked: *(e.g., vents dirty, etc.)*
Maintenance Frequency:

Equipment: Ultraviolet

Model # / Type:
What Needs to be Checked:
Maintenance Frequency:

Equipment: Ultraviolet Light Tube

Model # / Type:
What Needs to be Checked:
Maintenance Frequency:

2.6 Preventative Maintenance of Mechanical Equipment

Equipment: Specific Play Feature(s)

Model # / Type:
What Needs to be Checked:
Maintenance Frequency:

Equipment: _____

Model # / Type:
What Needs to be Checked:
Maintenance Frequency:

Equipment: _____

Model # / Type:
What Needs to be Checked:
Maintenance Frequency:

Section 2 – Pool Operation and Maintenance

2.6 Preventative Maintenance of Mechanical Equipment

Equipment: _____

Model # / Type:
What Needs to be Checked:
Maintenance Frequency:

Equipment: _____

Model # / Type:
What Needs to be Checked:
Maintenance Frequency:

Equipment: _____

Model # / Type:
What Needs to be Checked:
Maintenance Frequency:

Section 2 – Pool Operation and Maintenance

2.7 General Pool Maintenance

Write a detailed maintenance schedule specific to your facility. This can be done by describing the daily and long-term tasks associated with a job description, or by outlining the tasks that need to be done in the facility as a whole, as below.

Daily Task List

Weekly Task List

Section 2 – Pool Operation and Maintenance

2.7 General Pool Maintenance

Monthly Task List

Yearly Task List

2.8 Pool Cleaning Schedule

Area: Floors	**Chemical, Cleaner or Other Products Used**	**Safe Handling:** *(refer to MSDS)* List all the critical information including personal protective equipment.	**Cleaning Frequency**	**Person or Position Responsible**
Change Room				
Showers/ Washrooms				
Halls				
Pool Deck				
Floor/Deck Drains				
Other:				

Area: Surfaces	**Chemical, Cleaner or Other Products Used**	**Safe Handling:** *(refer to MSDS)* List all the critical information including personal protective equipment.	**Cleaning Frequency**	**Person or Position Responsible**
Benches/ Lockers, etc.				
Shower Walls				
Toilet Bowls				
Sinks/Mirrors				
Other:				

Section 2 – Pool Operation and Maintenance

2.8 Pool Cleaning Schedule

Area: Pool Basin	**Chemical, Cleaner or Other Products Used**	**Safe Handling:** *(refer to MSDS)* List all the critical information including personal protective equipment.	**Cleaning Frequency**	**Person or Position Responsible**
Tiles at Water Mark				
Skimmer Baskets				
Vacuuming				
Other:				

Area: Supplies	**Chemical, Cleaner or Other Products Used**	**Safe Handling:** *(refer to MSDS)* List all the critical information including personal protective equipment.	**Cleaning Frequency**	**Person or Position Responsible**
Toilet Paper/ Towels				
Soap				
Other:				

Other Areas:	**Chemical, Cleaner or Other Products Used**	**Safe Handling:** *(refer to MSDS)* List all the critical information including personal protective equipment.	**Cleaning Frequency**	**Person or Position Responsible**
Pool Play Features				

More complex aquatic facilities will require more complex cleaning procedures.

If outsourcing cleaning services, ensure appropriate above information is obtained.

Section 2 — Pool Operation and Maintenance

This space may be used to record additional information and/or details that are specific to your facility.

Section 3 – Lifeguarding

Lifeguarding needs are different for every facility. You need to provide details specific to your facility and expand upon this section of the Aquatic Facility Safety Plan as necessary.

Staffing needs are dependent on various factors, including patron age and skill level, pool size, type, and special features and services offered (e.g., slides, birthday parties, and instruction). Coordinating supervision levels to meet the needs throughout the daily operation planning, evaluation and scheduling.

This section will help you

- provide staffing-to-patron ratios and schedules for all times that the facility is in use
- develop written lifeguarding procedures for your facility
- Consultation with a professional life guard service provider is recommended

Section 3 — Lifeguarding

3.1 Lifeguard to Patron Ratio

Minimum staffing levels must be maintained at all times. An aquatic facility operator must ensure that when the pool is open to the public, pool supervision is provided by at least one lifeguard and one assistant.

The lifeguard to patron ratio is to be determined jointly by facility management, senior aquatic staff, and the lifeguard service provider, based on the design of the facility, patron activity, type of patrons, pool features in use at any given time , and various other factors.

The facility manager must ensure that when the pool is open to the public, pool supervision is provided by the number of lifeguards and assistants as required in the Aquatic Facility Safety Plan. The number of lifeguards and other employees on duty must be adequate to ensure supervision of all pool patrons.

Describe the Lifeguard to Patron Ratio for Your Facility

Number of Swimmers:	Number of Lifeguards:	Number of Assistants/Attendants:
Pool Activity:		
Notes:		

Number of Swimmers:	Number of Lifeguards:	Number of Assistants/Attendants:
Pool Activity:		
Notes:		

Section 3 — Lifeguarding

3.1 Lifeguard to Patron Ratio

Describe the Lifeguard to Patron Ratio for Your Facility

Number of Swimmers:	Number of Lifeguards:	Number of Assistants/Attendants:
Pool Activity:		
Notes:		

Number of Swimmers:	Number of Lifeguards:	Number of Assistants/Attendants:
Pool Activity:		
Notes:		

Number of Swimmers:	Number of Lifeguards:	Number of Assistants/Attendants:
Pool Activity:		
Notes:		

Section 3 — Lifeguarding

3.1 Lifeguard to Patron Ratio

Describe the Lifeguard to Patron Ratio for Your Facility

Number of Swimmers:	Number of Lifeguards:	Number of Assistants/Attendants:
Pool Activity:		
Notes:		

Number of Swimmers:	Number of Lifeguards:	Number of Assistants/Attendants:
Pool Activity:		
Notes:		

Number of Swimmers:	Number of Lifeguards:	Number of Assistants/Attendants:
Pool Activity:		
Notes:		

Section 3 — Lifeguarding

3.2 Lifeguard Procedures

Communication

- Describe any communication protocols between staff, use of public address systems, use of whistles, and use of radios, hand signals, etc.

Positions and Rotations

- Describe any procedures for lifeguarding, such as what areas to check.
- Provide guidelines for use and supervision of play equipment
- Describe any restrictions related to age and adult supervision required.

Describe Lifeguard Procedures for Your Facility

Lifeguard Procedures:	Notes:

Lifeguard Procedures:	Notes:

Section 3 — Lifeguarding

3.2 Lifeguard Procedures

Describe Lifeguard Procedures for Your Facility

Lifeguard Procedures:	Notes:

Lifeguard Procedures:	Notes:

Lifeguard Procedures:	Notes:

Section 3 — Lifeguarding

3.2 Lifeguard Procedures

Describe Lifeguard Procedures for Your Facility

Lifeguard Procedures:	Notes:

Lifeguard Procedures:	Notes:

Lifeguard Procedures:	Notes:

Section 3 — Lifeguarding

This space may be used to record additional information and/or details that are specific to your facility.

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

The intent of this section is to:

- Develop written procedures enabling you and your staff to efficiently and safely handle injuries, emergencies or incidents in your facility.
- Describe the equipment that is required and the emergency procedures for staff to follow for each type of situation.
- Describe preventative measures to reduce the risk of occurrence of emergencies.

Remember: Staff must be trained in the implementation of all emergency response procedures.

A site plan, diagram or outline of the entire facility should be posted in a visible area and by the phone. The site plan should include the locations of

- alarms
- phones
- exits
- specialized emergency equipment
- the best emergency vehicle access location

Keep a copy of these procedures in the Aquatic Facility Safety Plan.

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

4.1 Emergency Response – Communication and Planning

Communication is essential during an emergency. Consider these points when developing your plan.

- A chain of command should be developed as part of an emergency response plan.
- A phone or other acceptable means of communication must be provided at a convenient location at all pools. All staff should know the location of the nearest telephone.
- Usually a large number of people congregate at the scene of an emergency. The emergency plan must include crowd control and on-going supervision of the facility.
- Access for arriving emergency personnel should be evaluated with an access route pre-determined. During an emergency it is extremely important to provide rescue personnel with detailed directions to your facility.
- What is your planned route to be used for emergency response and evacuation at your facility?
- Who is responsible for meeting the emergency vehicle and directing it to the site?
- Who is responsible and has authority to close a pool to the public when an imminent health risk develops?

Things to consider when developing emergency response plan

- ☐ A chain of command is established
- ☐ A map/diagram providing locations of emergency exits, emergency phones, stop buttons, location of first aid room and kit, routes to be used in response to emergencies and evacuations
- ☐ Emergency phone numbers are posted at the emergency telephone(s)
- ☐ 911 script developed
- ☐ Rules and signage posted
- ☐ Staff certification, training and regular in-services developed and in place
- ☐ A method of communication between staff such as whistles or hand signals should be established and staff should be familiar with it
- ☐ Supervision and crowd control during and emergency/evacuation
- ☐ Emergency stop buttons are in place and functioning
- ☐ Potential emergencies and incidents identified
- ☐ Other:

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

4.1 Emergency Response – Communication and Planning

Is a telephone or other means of communication readily accessible at the pool? ☐ Yes ☐ No	Describe other means of communication:
Indicate the chain of command established for your facility during an emergency:	
Where is the first aid room or first aid kit located?	
Who is responsible for performing crowd control duties in the event of an emergency at the pool?	
What is your planned route to be used for emergency response and evacuation at your facility?	
Who is responsible for meeting the emergency vehicle and directing it to the site?	
Who is responsible and has the authority to close a pool to the public when an imminent health risk/emergency develops?	

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

4.1 Emergency Response – Communication and Planning

Phone Numbers

It is important to have easy access to emergency response numbers and to keep the list current. Use the following templates to create Emergency Contact Lists for your facility.

Emergency contact people should include police, ambulance, fire, and others as listed below.

Emergency Contact List *(Post next to the telephone or in another visible location if no telephone is available)*

First Responders	Ambulance **911**	Fire Department **911**	Police **911**
Additional Contact Information	Local Hospital ( )	Gas Company ( )	
	Poison Control ( )	Other ( )	
	Public Health Department ( )	Other ( )	
	Pool Company ( )	Other ( )	
Building Contacts Trained in First Aid / Emergency Response / CPR			
	( )	Cell ( )	
	( )	Cell ( )	
	( )	Cell ( )	
	( )	Cell ( )	
	( )	Cell ( )	
	( )	Cell ( )	

Viewed and updated by:

Print Name: _____ Print Date: (yyyy/mm/dd) _____

Section 4 — Procedures in the Event of a Serious Injury, Emergency or Incident

4.1 Emergency Response – Communication and Planning

911 Emergency Call/Script Policy

The Emergency Management Office (EMO) administers the 911 Emergency Service within Nova Scotia. The following information has been provided by 911[4].

When you call 911 the call taker will ask, "911, what is your emergency?" Stay on the line with the call taker and answer all questions. Expect to be asked:

- The nature of the emergency
- The complete address of the emergency, including civic number, street name and type, community and county
- To confirm the telephone number you are calling from

The call taker will then link you directly to the appropriate emergency responders — fire, police, ambulance or the poison information centre — in your area. Speak directly with the agency and provide any additional information they need.

It is essential to post your civic address so emergency responders can find you. Make sure that your civic number is posted in front of your business, and that it is clearly visible from the road day or night. This will assist police, firefighters and paramedics in being able to locate you as quickly as possible if an emergency should occur. If the civic number is posted directly on your place of business ensure that there is sufficient light so it is visible from the roadway at night. * Civic address by-laws vary by municipality. For proper posting of your civic number please contact your municipal office.

If you call 911 from a traditional landline phone the call taker has immediate access to your address; however if you are calling from a cell phone or VoIP phone you must be able to provide information about your location to the call taker.

Never Hang Up. You may have called 911 by accident, or the situation may have resolved itself; however it is important to let the call taker know this. If you hang up, the 911 call taker will assume that something has gone wrong. They will attempt to call the number back and may even have help sent. This ties up valuable 911 and police resources that could be responding to a real emergency.

Know the Capabilities of Your Device. You can call 911 from a variety of devices (traditional landline, cellular, VoIP); however the information that accompanies your call differs considerably with each device. It is important that you are familiar with the benefits and limitations of the various devices you use. For more information on cellular and VoIP visit the sections on this site. You may also wish to contact your service provider for more details.

Using a Traditional Landline. This is currently the safest way to make a 911 call in Nova Scotia. When calling 911 from a traditional landline telephone, the call taker has immediate access to:

- Your phone number (even if it is a non-listed or non-published number)
- Your complete address
- Police, fire and medical responders for your area

4 www.novascotia.ca/dma/emo/911/

Section 4 — Procedures in the Event of a Serious Injury, Emergency or Incident

4.1 Emergency Response – Communication and Planning

If you call 911 from a landline telephone and you cannot speak, emergency responders can still be dispatched because your address appears on the 911 call taker's screen. It is important to have at least one conventional phone that plugs directly into the wall. Portable phones require electricity and will not work during power outages.

Never Pre-program 911. It is illegal in Nova Scotia to program 911 into any telephone, including cellular phones, as this often causes accidental calls to 911.

911 Calls Requiring Special Assistance. Each call taker is equipped to receive 911 calls directly from individuals who are using a TTY device for the hearing or speech impaired.

If English is Not Your First Language. Nova Scotia's 911 system provides translation services in more than 170 languages. The 911 call taker has the ability to "conference in" an interpreter to translate calls.

911 will work with your organization to ensure an effective system is in place in case of an emergency.

A. Facilities with Emergency Phone at Pool Side

- Provide an emergency phone script, which includes the facility civic address, including street name, type, town and county and all details required to assist in locating the pool site.
- Post in view of the emergency phone.
- Include in the instructions any number that must be dialed to reach an outside line, such as a 7 or 9.
- If the emergency phone is automatically directed to an intermediate party such as the front desk or maintenance ensure someone is always there to receive the call and that they know the proper protocol and the civic address (chain of command).

Section 4 — Procedures in the Event of a Serious Injury, Emergency or Incident

4.1 Emergency Response – Communication and Planning

Example of Emergency Phone Procedure

1. Dial **911**. (If an additional number is required to reach an outside line, provide that information.) They will ask "what is your emergency?"
2. **State your emergency**. Specify "police, ambulance or fire."
3. State your name along with the civic address and the phone number you are calling from:

   My name is: _____

   The civic address is: _____
   (Facility civic number, Street name, Street type, Town, Community, County)

   The swimming pool phone number is: _____
   (Facility phone number)
4. The best entrance way to use is: _____
   (Provide directions; e.g., Front entrance through the parking lot)
5. **Send someone** to meet and direct the emergency personnel to the scene. _____
   (e.g., Front desk staff)
6. **Ask** for the estimated time of arrival of emergency services.

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

4.1 Emergency Response – Communication and Planning

Sample Script 1

Dial **911** (If an additional number is required to reach an outside line, provide that information.)
They will ask "what is your emergency?"

I need fire services.

My name is: _____

The address is: _____
(Facility civic number, Street name, Town, Community, County)

The phone number is: _____
(Facility phone number – if on cell)

The best way to enter the pool area is by the front entrance through the parking lot.

Can you tell me when help will arrive?

Sample Script 2

Dial **911** (If an additional number is required to reach an outside line, provide that information.)
They will ask "what is your emergency?"

I need an ambulance.

My name is: _____

The address is: _____
(Facility civic number, Street name, Town, Community, County)

The phone number is: _____
(Facility phone number – if on cell)

The best way to enter the pool area is by the front entrance through the parking lot.

Can you tell me when help will arrive?

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

4.1 Emergency Response – Communication and Planning

Write a procedure including a script for facilities with poolside emergency phone in the box below.

Section 4 — Procedures in the Event of a Serious Injury, Emergency or Incident

4.1 Emergency Response – Communication and Planning

B. Facilities without Emergency Phone at Poolside

- Provide a procedure with the location of nearest telephone or individual(s) on duty with a phone, cellphone, satellite phone, or emergency radio (e.g., concierge, manager, front desk, strata member, etc.).
- Provide other systems/alternate methods of alerting emergency responders as applicable (e.g., location of alarms/horns/intercom devices, etc.).

Remember to post procedure in a visible location at the pool.

Write a procedure for facilities with no poolside emergency phone in the box below.

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

4.2 Emergency Accident / Incident Response Procedures

Emergency response procedures should be easy to follow. Incidents should be recorded in the daily log book.

Major incidents should be recorded on an Incident Report form (sample forms are provided in Appendix 4, and can be changed as necessary for the facility).

The following table provides examples of various types of injuries or events that may occur.

Emergency response plans can help identify practices that reduce the likelihood of emergencies.

Patrons who are injured must be advised to see their doctor, even if they are feeling well, such as in the case of a head injury.

Note: This list does not cover all possible incidents and may need to be modified to meet the needs of a particular facility.

Type of Incident: Medical Emergencies

Drowning

Defined by the World Health Organization: Drowning is the process of experiencing respiratory impairment from submersion/immersion in liquid. This definition does not imply fatality, or even the necessity for medical treatment after removal of the cause, nor that does any fluid necessarily enter the lungs. With this definition in mind ensuring a robust understanding of the risks of "drowning" is essential in emergency planning.

Facility Procedure ☐ Additional sheet attached	**Prevention** *(may include)* • Signage posted • Staff training • Pool monitoring • Ensure all pool changes are approved • Access points secure • Depth markings visible • Water quality • Other:

Major Incidents

- Chest pain
- Seizures
- Spinal and/or head injury
- Allergic reactions
- Broken bones or sprains

Facility Procedure ☐ Additional sheet attached	**Prevention** *(may include)* • Signage posted and rules enforced (including play feature specific information) • Staff training • Other:

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

4.2 Emergency Accident / Incident Response Procedures

Type of Incident: Medical Emergencies

Minor Incidents/First Aid	
Facility Procedure ☐ Additional sheet attached	**Prevention** *(may include)* • Signage posted • Patron education • First aid kit well-stocked • No glass on deck • Other:
Heat-Related Incidents	
Facility Procedure ☐ Additional sheet attached	**Prevention** *(may include)* • Hot tub operates at maximum temperature of 40ºC • Signage posted • Tempering valves and taps on showers • Clock to monitor time spent in hot tub • Access to tempered water to cool down • Staff monitoring of hot tub, sauna, steam room areas • Provide shaded area at outdoor pools • Other:

Type of Incident: Illness Prevention

Fecal/Vomit/Blood/Body Fluid Incidents *(refer to fact sheets)*	
Facility Procedure ☐ Additional sheet attached	**Prevention** *(may include)* • Signage posted • Patron education • Develop procedures for different types of incidents • Other:

Section 4 — Procedures in the Event of a Serious Injury, Emergency or Incident

4.2 Emergency Accident / Incident Response Procedures

Type of Incident: Illness Prevention

Disease Outbreaks *(e.g., rashes, eye or ear infection, athlete's foot, fungal infections) Advise Nova Scotia Health and Wellness if there are complaints.*	
Facility Procedure ☐ Additional sheet attached	**Prevention** *(may include)* • Signage posted and rules enforced • Exclude patrons as per required signage *(e.g., if patrons are obviously ill; have diarrhea and/or communicable diseases)* • Minimize dirt from entering pool *(e.g., no shoes on pool deck, no dirt draining from planters)* • Ensure soap is available at hand sinks / showers • Follow Aquatic Facility Safety Plan cleaning procedures • Balance pool chemistry • Prevent animals from entering pool enclosure • Other:

Type of Incident: Patron-Related Emergencies

Entrapped Person	
Facility Procedure ☐ Additional sheet attached	**Prevention** *(may include)* • Physical inspection *(e.g., no gaps between 3.5 and 9 inches, no catch points)* • Signage • Patron education • Develop procedures *(e.g., provide scissors in first aid kit)* • Other:
Suction Hazards	
Facility Procedure ☐ Additional sheet attached	**Prevention** *(may include)* • Flow-through main drain not to exceed 1.5 ft/sec (flow meters regularly checked) • Inspection of main drain and skimmers • Develop procedures for shutting down pumps • Main drain replacement when needed • Equalizer lines disabled • Other:

Section 4 — Procedures in the Event of a Serious Injury, Emergency or Incident

4.2 Emergency Accident / Incident Response Procedures

Type of Incident: Patron-Related Emergencies

Slide/Diving Board/Play Feature Evacuation	
Facility Procedure ☐ Additional sheet attached	**Prevention** *(may include)* • Staff Training • Physical inspection *(e.g., no gaps between 3.5 and 9 inches, no catch points)* • Signage • Patron education • Develop procedures *(e.g., provide scissors in first aid kit)* • Other:
Hostile Person	
Facility Procedure ☐ Additional sheet attached	**Prevention** *(may include)* • Staff training *(i.e., to recognize and handle people influenced by drugs and/or alcohol)* • No drinking, alcohol, or drugs • Other:
Missing Person	
Facility Procedure ☐ Additional sheet attached	**Prevention** *(may include)* • Parents supervise children • Patron education • Other

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

4.2 Emergency Accident / Incident Response Procedures

Type of Incident: Facility Emergencies

Gas Leak		
Facility Procedure	☐ Additional sheet attached	**Prevention** *(may include)* • Know where and how to shut off gas at the meter • Maintenance *(e.g., leak prevention; check for corrosion)* • Monitoring systems as required *(e.g., propane, natural gas, chlorine, ozone)* • Staff training • Other:
Chemical Spill		
Facility Procedure	☐ Additional sheet attached	**Prevention** *(may include)* • Staff training and personal protective equipment (PPE) • Knowledge of chemicals and chemical interactions • Proper storage • Material Safety Data Sheets (MSDS) • Other:
Fire *(consult with Fire Marshal's office)*	*Include:* • Evacuation plan • Site plan including the location of alarms, exits, specialized equipment, etc. • Chemical room door clearly marked, inform fire department of chemical storage	
Facility Procedure	☐ Additional sheet attached	**Prevention** *(may include)* • Staff training • Fire alarms and extinguishers • Exit sign clearly marked • Maintenance/inspection checklist • Other:
Power Failure		
Facility Procedure	☐ Additional sheet attached	**Prevention** *(may include)* • Staff training • Emergency lighting tested and functioning • Emergency generator • Other:

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

4.2 Emergency Accident / Incident Response Procedures

Type of Incident: Facility Emergencies

Sewer Back-Up	
Facility Procedure ☐ Additional sheet attached	**Prevention** *(may include)* • Staff training • Other:
Electrical Discharge	
Facility Procedure ☐ Additional sheet attached	**Prevention** *(may include)* • Monthly ground fault circuit interrupter checks of underwater lights • Ground wires in good condition • Other:
Air Quality *(Plan for the worst case scenarios for chemical spills and mixtures of chemicals)*	
Facility Procedure ☐ Additional sheet attached	**Prevention** *(may include)* • Staff education • Maintain pool chemistry • Control combined chlorine • Clean and maintain ventilation system • Monitor warning signs *(e.g., log air quality complaints)* • Other:

Section 4 — Procedures in the Event of a Serious Injury, Emergency or Incident

4.2 Emergency Accident / Incident Response Procedures

Type of Incident: Natural Disasters

Lightning	
Facility Procedure ☐ Additional sheet attached	**Prevention** *(Insert procedures for your facility)* • Be proactive *(e.g., check weather forecast)* • Close outdoor pool in thunderstorm • Other:
Flood, Earthquake, Other	
Facility Procedure ☐ Additional sheet attached	**Prevention** *(Insert procedures for your facility)* • Staff Training • Other:

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

4.2 Emergency Accident / Incident Response Procedures

Type of Incident: _____

Specific Incident:	
Facility Procedure	**Prevention** *(Insert procedures for your facility)*

Type of Incident: _____

Specific Incident:	
Facility Procedure	**Prevention** *(Insert procedures for your facility)*

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

4.2 Emergency Accident / Incident Response Procedures

Type of Incident: _____

Specific Incident:	
Facility Procedure	**Prevention** *(Insert procedures for your facility)*

Type of Incident: _____

Specific Incident:	
Facility Procedure	**Prevention** *(Insert procedures for your facility)*

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

4.2 Emergency Accident / Incident Response Procedures

Type of Incident: _____

Specific Incident:	
Facility Procedure	**Prevention** *(Insert procedures for your facility)*

Type of Incident: _____

Specific Incident:	
Facility Procedure	**Prevention** *(Insert procedures for your facility)*

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

4.3 Emergency Equipment

All pool facilities shall have various types of emergency, safety, and first aid equipment to help respond to injuries and/or incidents.

Staff should know where all emergency equipment is located and be appropriately trained to use it. Emergency equipment must be routinely checked as per manufacturer's specifications.

Fill in the following table to record all emergency equipment and their locations.

Emergency Equipment *(Check all that apply)*	**Location**
☐ A non-conductive reaching pole at least 3.5 metres in length mounted at poolside*	
☐ A throwing ring attached to a line of at least 6 mm in diameter and having a length of at least half the width of the pool plus 3 metres mounted at poolside	
☐ First aid kit *(See Appendix 5 for sample Contents of First Aid Kit)*	
☐ A spine board (with at least 3 straps and a head-securing device)**	
☐ Oxygen equipment *(400 litres or greater)* with regulator and protective carrying case and a spare oxygen tank **	
☐ Full set of airways **	
☐ Automated External Defibrillator (A.E.D.)	
☐ Personal protective equipment including pocket mask and gloves	
☐ Eyewash stations	
☐ Other:	
☐ Other:	

** A shorter pole can be used if it is identified there is sufficient space. ** Lifeguards, assistants or other personnel must be trained in their use.*

Section 4 — Procedures in the Event of a Serious Injury, Emergency or Incident

4.4 Evacuation Procedures

A good evacuation procedure is important for all aquatic facilities. It is important to consider extreme weather conditions when writing the evacuation plan.

For example, include procedures required if you need to evacuate the building when facility users include

- patrons in bathing suits in winter
- special needs patrons
- different age groups (e.g., preschool children or elderly)

It is also important to know:

- escape routes, routes to nearest hospital, etc
- meeting area / muster station

Staff should be familiar with evacuation procedures. Procedures should be practiced and dates recorded.

Evacuation Procedure

Write clear procedures for evacuating your facility (include where to go, how to keep warm if your facility is open in the winter, etc.)

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

4.5 Facility Signage

The Nova Scotia Operational Guidelines for Aquatic Facilities recommend specific signage be posted in visible locations. Signs can help inform and educate patrons and will help prevent health risks, injuries, and accidents. Consider the needs of your facility to determine which additional warnings or instructions are required.

It is important to know the signs posted in your facility and to keep them in good condition. The use of pictograms as described in the Nova Scotia Operational Guidelines for Aquatic Facilities should be used as much as possible to deal with language barriers and literacy levels.

The following table provides a checklist for recommended signage for pools and hot tubs.

Recommended Signage *(Check all that apply)*	
☐ Pool Rules *(Rules shall be posted in a prominent position within the pool enclosure)*	☐ Hot Tub Rules *(Rules shall be in easy view of all users of the hot tub)*
☐ No Lifeguard on Duty– children must be supervised by an adult *(Posted at each entrance to the pool)*	☐ Location of Emergency Phone
☐ Location of First Aid Kit	☐ Location of Exits
☐ Emergency Numbers and Facility Address Posted by the Phone	☐ No Animals Allowed Except Guide Animals
☐ Bather Load	☐ Diving Area Rules
☐ Pool Slide Rules	☐ Pool "play equipment" Rules
☐ Emergency Procedures for Patrons	☐ Chemical Storage Room *(Sign on door)*
☐ Do Not Drink Pool Water	
Other Signs:	

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

This space may be used to record additional information and/or details that are specific to your facility.

Section 4 – Procedures in the Event of a Serious Injury, Emergency or Incident

This space may be used to record additional information and/or details that are specific to your facility.

Section 5 – Appendices

The following appendices are provided as a resource to help write your Aquatic Facility Safety Plan. The appendices can also be used for future reference.

Section 5 — Appendices

Appendix 1 — Web Links: General Resources *(Please note this is not an exhaustive list)*

Nova Scotia Health and Wellness — Public Health — Environmental Health
www.novascotia.ca/dhw/environmental/public-swimming-pools.asp

Pool Courses and Resources

National Swimming Pool Foundation (USA)
www.nspf.org

Lowry School for Pool and Spa Chemistry
www.lowryschools.com

Recreational Facilities Association of Nova Scotia
www.rfans.com

Lifesaving Society, Nova Scotia Branch
www.lifesavingsociety.ns.ca

Nova Scotia Red Cross Association
www.redcross.ca/where-we-work/in-canada/nova-scotia

The United States Centers for Disease Control and Prevention (CDC)
www.cdc.gov/healthywater/swimming/

Section 5 – Appendices

Appendix 2 – Bather Load Calculations

The bather load for your pool can be found on your Pool Data Sheet. If you are not able to find your Pool Data Sheet, then you can calculate the bather load for your pool using the information below.

Imperial: Maximum bathing load = (D/27) + (S/10)

Where D is the area of the swimming pool in square feet (ft^2) where the water depth is more than 5 feet, and S is the area of the swimming pool in ft^2 where the water depth is less than 5 feet. Pool depths of less than 2 feet shall not be considered in the calculations.

Metric: Maximum bathing load = (D/2.5) +(S/0.93)

Where D is the area of the swimming pool in square metres (m^2) where the water depth is more than 1.5 m, and S is the area of the swimming pool in m^2 where the water depth is less than 1.5 m. Pool depths of less than 60 cm shall not be considered in the calculations.

Note: Bather load for hot tubs may be determined at a rate of 30 cm (1 ft) of seating per person.

Section 5 – Appendices

Appendix 3 – Training Examples

Examples of staff training that you may require for your pool include:

- new staff training regarding Aquatic Facility Safety Plan and orientation to facility
- pool operator training
- lifeguard
- assistant lifeguard
- swimming instruction
- first aid
- specialized first aid equipment training
- WHMIS (specialized)
- injury prevention program (e.g., back care)
- violence in the workplace

Section 5 – Appendices

Appendix 4 – Accident Report

Date:	Time of Accident:
Name and position of person filling out form:	Contact Number:
Individual(s) involved:	☐ Additional sheet attached
Name:	Age:
Address:	Contact Number:
Name:	Age:
Address:	Contact Number:
Description of what occurred:	☐ Additional sheet attached

Location of Accident:

☐ Shallow End	☐ Change Rooms	☐ Among Trees	☐ Other (please specify)
☐ Deep End	☐ Outside Pool Grounds	☐ Wading Pool	
☐ Diving Boards	☐ Open Lawn	☐ Paddling Pool	
☐ Pool Deck / Sidewalk	☐ Fence	☐ Hot Tub	

Appendix 4 – Accident Report *(continued)*

Actions taken: *(Include equipment used)* ☐ Additional sheet attached	
Site and nature of injury: *(Include condition of subject and first aid)*	
Witness(es) or Others: ☐ Additional sheet attached	
Name:	
Address:	Contact Number:
Name:	
Address:	Contact Number:
Other Staff on Duty for that Activity or Time Period:	
Name:	Name:
Name:	Name:
Follow-up needed: ☐ Yes ☐ No	**Follow-up completed or accident resolved:** *(date)*
Manager or person in charge:	
Print Name:	Signature:

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Appendix 4 – Accident Report: Additional Space

Individuals involved: *(include witnesses or other)*	
Name:	Age:
Address:	Contact Number:
Name:	Age:
Address:	Contact Number:
Name:	Age:
Address:	Contact Number:
Description of what occurred:	
Actions taken:	

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Appendix 4 – Incident Report

Date:	Time of Incident:
Name and position of person filling out form:	Contact Number:
Individual(s) involved:	☐ Additional sheet attached
Name:	Age:
Address:	Contact Number:
Name:	Age:
Address:	Contact Number:
Description of what occurred:	☐ Additional sheet attached
Actions taken: ☐ See also Incident Response Log*	☐ Additional sheet attached
Follow-up needed: ☐ Yes ☐ No	**Follow-up completed or incident resolved:** *(date)*
Manager or person in charge:	
Print Name:	Signature:

**www.novascotia.ca/dhw/environmental/documents/Are-You-Prepared-for-a-Body-Fluid-Release-Incident.pdf*

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Appendix 4 – Incident Report: Additional Space

Individual(s) involved:	
Name:	Age:
Address:	Contact Number:
Name:	Age:
Address:	Contact Number:
Name:	Age:
Address:	Contact Number:
Description of what occurred:	
Actions taken:	

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Appendix 5 – Sample First Aid Kit Contents

The following first aid kit items must be kept clean and dry and must be ready to take to the scene of an accident. A weatherproof container is recommended for all items except the blankets. Blankets should be readily available to the first aid attendant.

Quantity	Item
3	Blankets
24	14 cm x 19 cm wound cleaning towelettes, individually packaged
150	Sterile adhesive dressings, assorted sizes, individually packaged
12	10 cm x 10 cm sterile gauze dressings, individually packaged
4	10 cm x 116.5 cm sterile pressure dressings with crepe ties
10	20 cm x 25 cm sterile abdominal dressings, individually packaged
12	Cotton triangular bandages, minimum length of base 1.25 m
2	2.5 cm x 4.5 m rolls of adhesive tape
2	5 cm x 4.5 m rolls of adhesive tape
6	7.5 cm x 4.5 m crepe roller bandages
1	500 ml sterile 0.9% sodium chloride solution (saline) in unbreakable container
1	60 ml of liquid antibacterial soap in unbreakable container
1	Universal scissors
1	11.5 cm stainless steel sliver forceps
1	Penlight or flashlight with batteries
1	7.5 cm x 4.5 m Esmarch gum rubber bandage
1 to 6	Pairs of medical gloves (preferably non-latex)
1	Portable oxygen therapy unit consisting of a cylinder (or cylinders) containing compressed oxygen, a pressure regulator, pressure gauge, flow meter and a non-rebreathing mask (may be kept in a separate container from the other supplies)
1	Oropharyngeal airway kit (may accompany the portable oxygen therapy unit)
1	Manually operated self-inflating bag-valve mask unit with an oxygen reservoir (may accompany the portable oxygen therapy unit)
6	Patient assessment charts
1	First aid records and pen
1	Pocket mask with a one-way valve and oxygen inlet

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Appendix 6 – Chemical Adjustment

Chemical Adjustment Summary

Parameter	To Increase	To Decrease
TA	Add Sodium Bicarbonate	Add Muriatic Acid
CH	Add Calcium Chloride	Dilute with soft water
pH	Add Sodium Carbonate (Soda Ash)	Add Muriatic Acid or Sodium Bisulphate

Section 5 – Appendices

Appendix 7 – General Preventative Maintenance Checklist

The following are some of the items that should be included in your schedule: *(add items as required)*

☐ Pool basin is free from algae, debris, and is clean	☐ Shower temperature is below 49°C
☐ Checked for entrapment hazard	☐ Ground fault circuit interrupter for underwater lights functioning
☐ Check water intakes for possible suction hazards	☐ Backflow prevention devices are functional *(e.g., air gap, reduced pressure backflow assembly, hose bib vacuum breaker, annual testing, reduced backflow assembly)*
☐ Check for any safety hazard, such as sharp projections	☐ Clock working and in place
☐ Main drain is secure and in good repair	☐ Adequate lighting for pool area
☐ Checked for signs of deterioration *(missing tiles, cracks, etc.)*	☐ Pool temperature ≤ 37°C
☐ Skimmer basket cleaned	☐ Hot tub ≤ 40°C
☐ Handrails, ladders, and deck equipment secure	☐ Flow meters working properly
☐ Water level is correct for removal of floating debris	☐ Drains secured and not broken
☐ Depth markings clearly visible	☐ Floating weirs
☐ Steps are clearly marked in a contrasting colour	☐ Other:
☐ Floors are in good condition with non-slip surfaces, free of pooled water, and free of ice in freezing conditions	
☐ Adequate fencing, doors, gates, and alarms to prevent unauthorized entry	
☐ Drinking water fountain is operational	☐ Other:
☐ First aid kit well stocked	
☐ Rescue equipment in good condition and easily accessible	
☐ Signage is in place	

Appendix 7 – General Preventative Maintenance Checklist *(continued)*

☐ Other:	☐ Other:
☐ Other:	☐ Other:
☐ Other:	☐ Other:
☐ Other:	☐ Other:
☐ Other:	☐ Other:
☐ Other:	☐ Other:
☐ Other:	☐ Other:
☐ Other:	☐ Other:

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Appendix 8 – Fecal / Vomit / Body Fluid Response Protocol

Insert procedures specific to your facility. See links to approved protocols.

Web links:

Nova Scotia Department of Health
www.novascotia.ca/dhw/environmental/public-swimming-pools.asp

The United States Centers for Disease Control and Prevention (CDC)
www.cdc.gov/healthywater/pdf/swimming/pools/fecal-incident-response-recommendations.pdf

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Appendix 9 – Water Test Interference[5]

The following table summarizes some common interferences and how they impact the test colour in disinfectant tests.

Test	**Interference**			
	High Chlorine	**Metals: Cu, Fe, Mn**	**High Calcium**	**Monopersulfate**
Chlorine	At approximately 10 ppm, may cause partial or total bleaching of the DPD reagents, resulting in lower pink colour intensity, or no pink colour at all.	None	May cause the sample to turn cloudy white when adding DPD #1.	Will cause a false positive (more intense pink colour) for combined chlorine at any level and for free chlorine at high levels (over 25 ppm).
pH	May create a different indicator, chlorphenol red, that is purple at pH 6.6 and higher.	None	None	None
Total Alkalinity	May cause the beginning colour to be light blue and the end-point to be yellow, rather than the expected starting green colour and red (pink) endpoint.	None	None	None
Calcium Hardness	None	Expected blue colour never fully develops, and the endpoint approaches blue, but fades to a light purple.	None	None
Other:				
Other:				
Other:				
Other:				
Other:				
Other:				

5 The United States Centres for Disease Control and Prevention (CDC). (2014) Model Aquatic Health Code-First Edition Annex Retrieved from the web at www.cdc.gov/healthywater/pdf/swimming/pools/mahc/Complete-First-Edition-MAHC-Annex.pdf

Section 5 – Appendices

References:

British Columbia Ministry of Health. (2012). Pool Safety Plan Guide for Pool Operators adapted with permission. www.health.gov.bc.ca/protect/pdf/pool-safety-plan.pdf

Nova Scotia Department of Health and Wellness. (2014) Nova Scotia Operational Guidelines for Aquatic Facilities retrieved from the world wide web at www.novascotia.ca/dhw/environmental/public-swimming-pools.asp

The United States Centers for Disease Control and Prevention (CDC). (2014) Model Aquatic Health Code-First Edition Annex Retrieved from the web at www.cdc.gov/healthywater/pdf/swimming/pools/mahc/Complete-First-Edition-MAHC-Annex.pdf

The United States Centers for Disease Control and Prevention (CDC). (2014) Model Aquatic Health Code-First Edition The Code. Retrieved from the web at www.cdc.gov/healthywater/pdf/swimming/pools/mahc/Complete-First-Edition-MAHC-Code.pdf

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This space may be used to record additional information and/or details that are specific to your facility.


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