NORTHWEST TERRITORIES
SUPERVISED FACILITY FEASIBILITY STUDY

REPORT
MARCH 21,2014

LIFESAVING SOCIETY
The Lifeguarding Experts

LIFESAVING SOCIETY®

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NORTHWEST TERRITORIES SUPERVISED FACILITY FEASIBILITY STUDY

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The Lifesaving Society is Canada's lifeguarding expert. The Society works to prevent drowning and water-related injury through its training programs, Water Smart® public education initiatives, water-incident research, aquatic safety management services, and lifesaving sport.

Annually, well over 1,000,000 Canadians participate in the Society's swimming, lifesaving, lifeguard, and leadership training programs. The Society sets the standard for aquatic safety in Canada and certifies Canada's National Lifeguards.

The Society is an independent, charitable organization educating Canadian lifesavers since the first Lifesaving Society Bronze Medallion Award was earned in 1896.

The Society represents Canada internationally as an active member of the royal Life Saving Society and the International Life Saving Federation. The Society is the Canadian governing body for lifesaving sport - a sport recognized by the International Olympic Committee and the Commonwealth Games Federation.

SUPERVISED FACILITY FEASIBILITY STUDY

NORTHWEST TERRITORIES

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The Lifeguarding Experts

About the Lifesaving Society

- Saving lives for over 100 years

The Lifesaving Society is a full service provider of programs, products, and services designed to prevent drowning. The Society saves lives and prevents water-related injuries through its training programs, Water Smart® public education, drowning research, aquatic safety management and lifesaving sport. The Society is a national volunteer organization and registered charity composed of ten provincial/territorial branches, tens of thousands of individual members, and over 4,000 affiliated swimming pools, waterfronts, schools, and clubs.

The Society has been teaching swimming, water safety and water rescue in Canada since 1986. Established in England (1891) as the Swimmers' Lifesaving Society, it became The Royal Lifesaving Society in 1904. Today, it is known simply as the Lifesaving Society. The Lifesaving Society is a leader and partner in the delivery of water safety education throughout Canada and around the world.

Teaching Canadians to save themselves and rescue others

Annually 1,000,000 Canadians participate in the Lifesaving Society's swimming, lifesaving, lifeguard, first aid, and leadership programs. Each year, the Society certifies thousands of instructors who provide the leadership for its training programs. Over 30,000 Canadians earn the Society's Bronze Medallion each year. As Canada's lifeguarding experts, the Lifesaving Society sets the standard for lifeguard training and certifies Canada's National Lifeguards.

Making Canadians Water Smart

The Lifesaving Society focuses Water Smart drowning prevention efforts on people most at risk - like men fishing in small boats - or on those who can make a significant difference, such as parents of young children. The Society delivers Water Smart messages through its swim program, through the media and community action. The Society's Swim to Survive® Program provides the essential minimum skills required to survive an unexpected fall into deep water.

Drowning Research

The Lifesaving Society conducts research into fatal and non-fatal drowning, aquatic injury and rescue interventions. Ongoing research and analysis supports the Society's evidence-based water rescue training and Water Smart drowning prevention education.

Setting the Standard

The Lifesaving Society establishes aquatic safety standards and consults on aquatic safety issues for the aquatic industry, governments and the judiciary. The Society offers a suite of services to help aquatic facility operators maintain and improve safe pool and waterfront operations. The Society performs aquatic safety audits and serves as experts in legal cases involving aquatic safety.

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Lifeguard Feasibility Study

Section 1

Purpose

The Government of Northwest Territories department of Industry, Tourism and Investment retained the Lifesaving Society to undertake a supervised facility feasibility study for Fred Henne and Hay River Territorial Parks.

It was agreed that the purpose of the supervised facility feasibility study was to research and provide information relevant to the challenges, benefits, and resources required to implement and sustain a staffed service at Fred Henne and Hay River Territorial Parks. Steps will be outlined indicating required qualifications, training, procedures that would be required for a staffed service. The supervised facility feasibility study would identify both benefits and challenges that a staffed service would face.

It was agreed that the scope of the supervised facility feasibility study would include research on what is being done across Canada. The Lifesaving Society would undertake discussions with other provincial/municipal lifeguard services that provide protection at outdoor waterfronts to assist in formulating recommendations in this report.

The report would not create specific documentation, policies, or procedures to be utilized at the supervised waterfront facilities.

On-going Support

The Lifesaving Society is a national charity working to prevent drowning and water-related injury. We save lives and prevent injury through our training programs, Water Smart®, public education, water incident research, aquatic safety management services, and lifesaving sport.

The Lifesaving Society enhances the quality of life of Alberta and Northwest Territories residents by setting health and safety standards and collaborating with partners for injury prevention, sport, recreation and active living initiatives, making Alberta and the Northwest Territories the safest places to live, work, and play.

The Waterfront Safety Standards are Lifesaving Society standards that recommend evidence based best practices for the safe operation and use of waterfronts. The standards are intended to assist owner/operators in making decisions for optimal safety at waterfronts. These best practices are evidence based, reflect the expert option, and position of the Lifesaving Society.

National Lifeguard certification is recognized as the standard for lifeguards in Canada. National Lifeguard develops a sound understanding of lifeguarding principles, good judgement, and a mature and responsible attitude toward the role of the lifeguard.

Lifeguard Feasibility Study Process

Section 2

Author

The Lifesaving Society authored this report and would like to thank the following individuals for their assistance.

Kelly Carter - Standards and Safety Manager Lifesaving Society as chief author

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Paul Deon - Director of Nova Social Lifeguard Service as contributor

Sean Healy - City of Vancouver as contributor

The Lifesaving Society has extensive experience in aquatics and facility evaluation.

Feasibility Study Focus

The Government of Northwest Territories Department of Industry, Tourism, and Investment engaged the Lifesaving Society to complete a supervised facility feasibility study. The focus of this study is to identify the benefits, challenges, steps, and costs to implement a staffed system at Fred Henne and Hay River Territorial Parks.

Feasibility Study Components

The supervised facility feasibility study includes:

- Review of employment, population, and income data for the City of Yellowknife and Town of Hay River
- Historical temperatures for the City of Yellowknife and Town of Hay River
- Lifesaving Society certification statistics
- Components of a surveillance systems
- Staffing requirements
- Budget impacts

Public Consultation

The Government of Northwest Territories may choose to share this report and consult with the public to identify further impacts, benefits, and constraints to provide a staffed service at the Fred Henne and Hay River waterfront facilities.

Reporting Process

Drawing on all documentation supplied by the Department of Industry, Tourism and Investment, the Nova Scotia Lifeguard Service, Environment Canada, Statistics Canada, and the City of Vancouver the Lifesaving Society has documented a draft report for review by the Department of Industry, Tourism and Investment.

Upon receiving feedback and updated information from the department of Industry, Tourism and Investment, the final report was formalized and delivered to the Department of Industry Tourism and Investment for consideration.

Executive Summary

Section 3

Benefits

Implementing a supervised facility at Fred Henne and Hay River Territorial Parks would assist in increasing the level of protection offered to the public to a Level 8.

A supervised system can assist in public education and raising awareness about water safe behaviors. Staff aim to intervene before an incident occurs. The focus is on prevention.

Challenges

Staff can not prevent every incident from occurring. In cases where the staff member misses something, it can have a devastating effect on the individuals involved in the rescue, along with witnesses, and the family.

Additional challenges that are unique to the waterfront facilities at Fred Henne and Hay River Territorial parks include:

- Stays light late during the summer months.
- Recruitment and retention of staff
- Sustainability
- Capacity
- Lifeguard can increase liability - Risk
- Short season
- Size of supervised area
- Type of area

Financial Requirements

It is estimated that it would cost $7,280 to set up a waterfront attendant service at both Fred Henne and Hay River Territorial Parks.

It is estimated that it would cost $122,769 to operate a waterfront attendant service seven (7) days a week from 10am to 6pm at both Fred Henne and Hay River Territorial Parks. This number is based on two (2) staff on duty.

It is estimated that it would cost $83,000 to set up a lifeguard system at both Fred Henne and Hay River Territorial Parks..

It is estimated that it would cost $232,392 to operate a limited lifeguard service two (2) days a week from 10am to 6pm at both Fred Henne and Hay River Territorial Parks. This number is based on four (4) staff working on duty.

It is estimated that it would cost $444,354 to operate a full time lifeguard service seven (7) days a week from 10am to 6pm at both Fred Henne and Hay River Territorial Parks. This number is based on four (4) staff on duty.

The budget numbers and staffing requirements provided in this report are estimates and could change based on facility needs. and recruitment challenges.

Social Impacts

Implementing a supervised waterfront at the Fred Henne and Hay River Territorial Parks will have significant impact community members and users. Community members and waterfront users will be required to follow the rules while using the facility. Systems and staff at the waterfront will be instrumental in educating the community and waterfront users on safe practices around water. There is potential that some community members and users will have challenges following behaviors and expectations that they will be required to provide at the waterfront.

Supervised waterfront require all users to support and follow the rules for the waterfront. This includes: staying within the swim area, access to the waterfront, active caregiver supervision of children, etc.

Critical Risks

If a major incident were to occur at a supervised facility it will have a significant impact for the staff, the owner/operator, and the community. Supervised facilities are held to a higher standard when it comes to risk management. Often this results in higher insurance claims when they are submitted.

If staff at a supervised facility are determined to be negligent this can have a negative social and financial impact on both the owner and operator.

The Lifesaving Society's Supervised Facility Feasibility Study reports on ten categories:

- Site Information
- Current Capacity
- Operating Season
- Service Delivery Options
- Personnel
- Emergency Procedures
- Operating Procedures
- Communication and Education
- Risk Management
- Rescue Equipment

Site Information

Two sites were selected to be included in this report (Fred Henne Territorial Park and Hay River Territorial Park). Both sites are Territorial Parks with a waterfront that are located within municipal boundaries. Each site has unique challenges that may require different strategies to address implementation challenges when making the transition to a supervised waterfront.

Current Capacity

There currently is limited capacity in the Northwest Territories to support a lifeguard supervised waterfront. Lifesaving Society statistics indicate that there are no current certified Waterfront National Lifeguards living in the Northwest Territories. It is estimated that it may take 2-5 years to build the capacity to provide waterfront lifeguards at these sites.

There is good probability that a monitored waterfront could be established through the use of waterfront attendants and current capacity in the Northwest Territories exists to deliver the aquatic emergency care and shallow water attendant certification programs.

Operating Season

Weather will have a significant impact on the waterfront season at both Fred Henne and Hay River Territorial Parks. It is recommended that the waterfront be open for swimming between mid June through till the end of August.

Service Delivery Options

Before consideration be given to staffing the waterfront to become a supervised facility the level of protection needs to be raised and maintained at a level 7 layer of protection (Fred Henne Aquatic Safety Audit and Hay River Aquatic Safety Audit).

Supervised facilities are required to meet the requirements of all 8 layers of protection.

This report presents four (4) options for consideration when determining the need of implementing a supervised facility. Options presented include:

- No staffing service and maintaining the waterfront at a level 7 layer of protection
- Waterfront attendants (6-12 staff per waterfront, 2 working during operational hours)
- Limited Lifeguard Service (4-10 staff per waterfront, 4 working during operational hours)
- Full Lifeguard Service (8-16 staff per waterfront, 4 working during operational hours)

Personnel

Certification requirements differ based on the service option selected.

All staff at the waterfront should be in a uniform that is easily identifiable to the public.

Regardless of the service option selected staff or volunteers will be required to complete orientation training, pre-season training, on-going staff in-services, assist with facility operations and shut down.

It is anticipated that retaining staff will be difficult as it is seasonal work.

Emergency Procedures

It is expected that all supervised facilities have established emergency procedures in place that identify a variety of response procedures for staff to follow. It is recommended that staff are trained on all of the facility's emergency procedures and that procedures are practiced by staff on a regular basis.

Operating Procedures

There currently are no operating procedures developed for staff at either Fred Henne or Hay River Territorial Parks. A complete system will need to be developed prior to hiring and training staff for the season. This includes development of a staff structure, development of policy and procedure manuals, creation of a safety and supervision plan (Appendix J), and implementation of a occupational health and safety system.

Communication and Education

A communication system will need to be developed to allow for communication between staff, staff and emergency services, and effective communication with the public. Education systems are also recommended to be developed to raise public awareness to their responsibilities for using the waterfront.

Risk Management

Every owner and operator of a waterfront facility has an obligation to provide a safe environment for every user of the waterfront. This obligation has been very clearly identified and affirmed by court decisions across Canada. It is important for owners and operators to reference the Lifesaving Society's Waterfront Safety Standards when assessing safety at a waterfront.

Rescue Equipment

Based on the staffing system selected rescue equipment will be required for each waterfront. A list of recommended and optional rescue equipment has been included in this report. It is important to note that management will be responsible for providing training for staff on how to use each piece of equipment and establishing a safe work practice for each piece of equipment.

Closing

There is much work to be done to implement a supervised waterfront system at both Fred Henne and Hay River Territorial Parks. It is anticipated that significant time would be required to develop all of the policies, procedures, safety inspections, safe work practices required for start up. All of these policies in addition to recommendations from the Aquatic Safety Audit reports would be required to be in place before staff are placed at the waterfronts.

The Lifesaving Society has a commitment to provide ongoing support to the Government of Northwest Territories. The Society will continue to provide and improve its full service and training continuum. This continuum is available in communities throughout the Northwest Territories and includes Swim to Survive®, Swim for Life®, Canadian Swim Patrol, Bronze Medals, First Aid/CPR, BOAT, Lifesaving and Lifeguarding programs. The Lifesaving Society program continuum helps to build healthy and active communities across the Northwest Territories.

Site Information

Section 4

Both Fred Henne and Hay River Territorial Parks are located within municipal boundaries. Both sites would face unique challenges as a supervised facility. As unique sites they may require different strategies to address implementation challenges when making the transition to a supervised waterfront.

Site Name	Fred Henne Territorial Park
Site Address	Yellowknife, NWT
Owned by:	Government of Northwest Territories
Operated by:	Private Contractor
Operating Season	May 15 - September 15
Access:	The site can be accessed through the campground or from the public parking lot.
	The site is located 5km from downtown Yellowknife.
Change rooms:	The site has a male and female change room
Wash rooms:	Outhouse style toilets are available at both the South West and South East corners
	There are no showers available on site
Beach Amenities:	Volleyball courts, playground, lifejacket loaner station program
Unique Challenges	Include: uneven bottom, short swim season (2.5 months)
Other	Fred Henne Territorial Park is currently an unsupervised waterfront. There is no surveillance system, lifeguard equipment, lifeguard staff policies/procedures, or lifeguard staff structure in place.

Site Name	Hay River Territorial Park
Site Address	Hay River, NWT
Owned by:	Government of Northwest Territories
Operated by:	Private Contractor
Operating Season	May 15 - September 15
Access:	The site can be accessed through the campground or from the public parking lot.
	The site is located 7km from Hay River's town centre.
Change rooms:	The site has no change rooms
Wash rooms:	Outhouse style toilets are available at the beach.
	There are no showers available on site
Beach Amenities:	Fire pits, picnic tables, and a playground
Unique Challenges	Include: uneven bottom, short swim season (2.5 months), current from river, debris (including large trees),
Other	Hay River Territorial Park is currently an unsupervised waterfront. There is no surveillance system, lifeguard equipment, lifeguard staff policies/procedures, or lifeguard staff structure in place.

Current Capacity

Section 5

There is currently limited capacity in the Northwest Territories to support a supervised lifeguard system. Lifesaving Society statistics show that there are zero (0) certified waterfront lifeguards living in the Northwest Territories. There is some capacity for future as a number of residents have been trained in Bronze Cross, which is a prerequisite for the National Lifeguard - Waterfront certification. (See Appendix A - Lifeguard Capacity)

Considering there is no existing capacity in the Northwest Territories for a Lifeguard system to supervise the waterfronts identified, lifeguards would need to be recruited to come to the identified communities. Recruiting lifeguards from across Canada will come with expenses that include travel, accommodation, and food allowances to assist in recruitment.

Local recruitment and training makes Waterfront attendants are a viable option to consider. Responsible residents could be trained in the Lifesaving Society's shallow water attendant program in their local community. The prerequisites for this certification is minimal and the certification provides adequate training for staff to monitor activities at the waterfront and to respond to shallow water emergencies.

Lifeguard Training

The pathway to becoming a waterfront lifeguard includes being a proficient swimmer and completing the following training programs: Bronze Medallion (20 hours), Bronze Cross (20 hours), Standard First Aid (16 hours) , and National Lifeguard Waterfront (40 hours). Following the completion of the National Lifeguard Waterfront certification, lifeguards are be required to complete further training with their employer to orient them on the specific policies, procedures, and rescue techniques used at the facility in which they are employed.

Shallow Water Attendant

The pathway to becoming a shallow water attendant includes completing the following training programs Aquatic Emergency Care (20 hours), Shallow Water Attendant (4 hours).

More information on the training programs discussed above is located in Appendix A through E.

Employment Data

After reviewing the population and employment data for the City of Yellowknife and Town of Hay River it is determined that there is a healthy job market. With low unemployment rates it can be difficult to recruit future employees to work at the waterfronts. Additional challenges will be faced in recruitment of positions as the work is seasonal (only 2.5 months) of the year. Population and employment data can be found in Appendix H.

Size of Waterfront

The swim areas at both Fred Henne and Hay River Territorial Parks are significant in size. Research and data is needed to analyze usage and determine future options. It is recommended that management track and document user trends and statistics during operation to determine if changes could be made to further protect bathers and increase supervision effectiveness for the waterfront.

Operating Season

Section 6

Weather will have a significant impact on the waterfront season at both Fred Henne and Hay River Territorial Parks. After reviewing the weather patterns in 2013 it is recommended that the waterfront be open to the public from mid June to the end of August (See Appendix G - Weather Data).

There were no water temperature statistics available for Fred Henne or Hay River Territorial Parks. It is recommended that further data be obtained.

It is also identified that there are no waterfront user statistics available for Fred Henne or Hay River Territorial Parks. User statistics could be valuable in determining trends that can assist in determining future staffing needs. This is an area where future research is recommended.

Service Delivery Options

Section 7

The following options can be considered when establishing a supervised facility. The estimated costs are to provide the service at both Fred Henne and Hay River Territorial Parks.

The budget estimates below do not include expenses for beach maintenance or the costs of raising the layer of protection at the waterfront from a level two (2) to level seven (7). The sample budget estimates are based on a sample operational schedule and would increase if additional staff were needed. Costs of the service option would also increase if the hours of service were to increase.

Option 1: **No Lifeguard Service**

This option would involve no further planning or implementation. The waterfront would remain at a level 7 layer of protection. Existing contract staff would provide maintenance to the waterfront with regular patrols completed by parks officers.

This option has minimal budget impact. The waterfront would remain unsupervised.

Option 2: **Waterfront Attendant**

This option would involve staffing the waterfronts with attendants who could enforce rules, observe behaviors, provide public education, and monitor beach use. Attendants would not provide constant surveillance of the water at the facility, but they can provide limited water rescue response based on level of training. There would be no lifeguard towers placed at the waterfront.

This would allow the waterfront to be designated a supervised facility.

The budget impact of this option would be minimal compared to a limited or full lifeguard service.

Estimated set up cost: $7,280

Estimated annual operating cost: $122,769

Estimated costs are for providing service seven (7) days a week from 10am to 6pm with two (2) waterfront attendants.

Option 3: **Limited Lifeguard Service**

This option would involve the Department of Industry, Tourism, and Investment identifying peak or high risk times and establishing a lifeguard service to operate during targeted hours. When the lifeguard is on duty the beach could reach layer of protection level 8 and when there is no lifeguard the layer of protection would be reduced to a level 7 layer of protection. While lifeguards are on-duty they would provide constant surveillance of the water, monitoring of activities, public education, and rescue response as required. Lifeguard towers would be placed at the waterfront.

The waterfront would be designated a supervised facility only while lifeguard protection is provided.

This option limits the operating cost of providing a lifeguard service but leaves the beach unsupervised during some operational periods.

Estimated set up cost: $83,000

Estimated annual operating cost: $237,392

Estimated costs are for providing service two (2) days a week and on general holidays from 10am to 6pm with four (4) lifeguards.

Option 4: **Full Lifeguard Service**

This option would involve restricting public beach access to times where lifeguard supervision is provided. While lifeguards are on-duty they would provide constant surveillance of the water, monitoring of activities, public education, and rescue response as required. Lifeguard towers would be placed at the waterfront.

This option provides the highest layer of protection at the highest cost.

Estimated set up cost: $83,000

Estimated annual operating cost: $444,354

Estimated costs are for providing service seven (7) days a week from 10am to 6pm with four (4) lifeguards.

Personnel

Section 8

There are options available to staff the waterfronts at Hay River and Fred Henne Territorial Parks. This section includes recommendations for certification and training of waterfront staff.

Lifeguards

National Lifeguard Waterfront certification along with Aquatic Emergency Care (AEC) is recommended as the certification requirement of lifeguards working at a waterfront in Canada. The sample budget is based on four (4) lifeguards during operational hours at both Fred Henne and Hay River Territorial Parks. The number of lifeguards required to supervise the facility may increase based on lifeguard to bather ratios, facility access, and operational requirements once these have been established.

Shallow Water Attendant

Any staff member or volunteer at the waterfronts who is not identified as a National Lifeguard is recommended to be certified by the Lifesaving Society as a Shallow Water Attendant. The sample budget is based on two (2) shallow water attendants during supervised hours at both Fred Henne and Hay River Territorial Parks. Additional shallow water attendants may be required based on number of users, facility access, and operational requirements.

Recruitment

There are no certified waterfront National Lifeguards in the Northwest Territories. National Lifeguards with a waterfront designation would either need to be recruited from across the country or Bronze Cross award holders would need to be targeted to take the National Lifeguard Waterfront certification.

Challenges can be expected recruiting lifeguards to work at Fred Henne Territorial Park as most positions will be seasonal. The weather limits the swimming season at Fred Henne Territorial Park due to its northern location. It is estimated that the waterfront would be opened mid June and closed at the end of August. Due to the seasonal work, students could be a target workforce.

Consideration may have to be given to providing housing, transportation, and a food allowance to assist in recruiting lifeguards from across Canada to work at the Fred Henne Territorial Park. It is estimated that it could take between 2-5 years to build system sustainability.

Retention

Many aquatic facilities face challenges in retaining staff. It is anticipated that retaining staff to work at the waterfront facility would be even more difficult as the work is seasonal.

Volunteers

If volunteers are to be considered they must all be certified and trained just like a staff member would be. It is expected that volunteers would be held to the same standard of care that a paid staff member would be in a court of law.

Uniforms

Staff uniforms would need to be selected. The Lifesaving Society recommends a yellow and red uniform for lifeguards. All staff should wear a uniform which permits them to be easily and quickly identified. The purpose of the uniform is to make the lifeguards stand out so that they are readily distinguished from bathers and spectators, and can be quickly contacted in case of an emergency or when assistance is required.

Training

Orientation Training

All new or returning staff shall receive orientation training before assuming their supervision duties. This training should include:

- Introduction to fellow staff members
- Exploration of job description and responsibilities
- Introduction to and evaluation of hazards and risks in the facility, and review of facility rules and policies concerning them
- Review of personnel policies and procedures
- Specific job-related training required to familiarize staff with facility's programs, activities, operation, maintenance, and policies and procedures concerning supplies and equipment
- Specific training in the facilities safety systems and emergency procedures
- Specific training in public relations and effectively dealing with the patrons

Pre-service Training

Pre-service training allows new staff and returning staff to review facility-specific supervision, rescue, and public relation skills. This training should include:

- Orientation
- Facility specific emergency procedures
- Skills and procedures
- Resuscitation skills and aquatic emergency care
- Communication and teamwork
- Physical fitness

Ongoing Staff In-services

A lifeguards job requires a high degree of judgement, knowledge, skill and fitness in both day to day guarding and in the stress of an emergency. In-service training helps sustain the lifeguards confidence in his or her ability to prevent incidents and respond competently when they do occur.

Waterfront Attendants require ongoing in-service training which include professional development, operational updates, skill practice, and emergency response training. In-service training helps sustain the waterfront attendants confidence in his or her ability to prevent incidents and respond competently when they do occur.

Facility Shut Down

At the end of the season the facility would need to be closed to the public and all equipment would need to be inspected and stored for the next year. Management should review the statistics from the year and use this for making adjustments to the staffing system for the next year.

Emergency Procedures

Section 9

It is expected that all supervised facilities have established emergency procedures in place that identify a variety of response procedures for staff to follow. It is recommended that staff are trained on all of the facilities emergency procedures and that procedures are practiced by staff on a regular basis.

The existing emergency procedures in place for Fred Henne and Hay River Territorial Parks do not include situations that might be encountered at a supervised waterfront. It is recommended that emergency procedures be expanded to include a procedure for any emergency staff may face at the waterfront and clearly identify the role and responsibilities of each staff member.

Sample Emergency Procedures

Missing Person

Drowning

Severe Weather

Bomb Threat

Major First Aid

Spinal Procedures

Scuba Injury

Fire

Public Relations

Workplace violence

Other emergency procedures as identified

Operating Procedures

Section 10

There currently are no operating procedures developed for staff at either Fred Henne or Hay River Territorial Parks. A complete system will need to be developed prior to hiring and training staff for the season. This section outlines some of the operation procedures that are recommended to be developed for both territorial parks.

Organisational Structure

An organisational structure will need to be developed for the option chosen to provide a supervised waterfront. A sample organisational structure has been included in Appendix K. Sample job descriptions to go with the sample organizational charts have been included in Appendix L.

Policy and Procedure Manual

This manual would contain the policies and procedures staff would be expected to follow while working. Items include: opening and closing procedures for each park, inspection procedures for (equipment, first aid kits, beach, etc.), public rules of use, staff hours of work, and other administrative policies. A sample list of contents for an Aquatic Staff Manual can be found in Appendix I.

Safety and Supervision Plan

It is industry practice that all supervised facilities have a Safety and Supervision Plan (Appendix J - Safety and Supervision Plan). This plan would need to be developed and tested for both Fred Henne and Hay River Territorial Parks. A Safety and Supervision Plan identifies how safety systems function to provide optimal safety for both staff and public.

Occupational Health and Safety

Employers are required to provide a safe environment for all workers. Implementing a staffing system with either paid staff or volunteers would require the development of a Occupational Health and Safety (OH&S) system for each work site. OH&S programs often include systems to assess and control hazards, perform work site inspections, investigate incidents, and program administration.

As part of the OH&S program, hazard assessments would need to be performed on each work task (eg. water rescue, cleaning, rule enforcement, working outdoors, etc.).

Communication & Education

Section 11

A communication and education system will need to be developed for the supervised waterfront. This will require procedures to be developed and equipment to be in place for implementation and use.

Staff Communication

Flag System

If it is determined that the waterfront will be supervised by a lifeguard, it is recommended that staff be trained on flag signals. Lifeguards often use flags to communicate messages over long distances where a radio or other communication device is not available.

Communication System

It is important that staff can communicate effectively with each other while on duty. A communication system will need to be researched and tested for each waterfront. It is recommended that consideration can be given to radios on a private frequency, and cell phones.

A communication method for staff to connect with each other, parks officers, campground contractors and emergency services will need to be selected. Options to consider may include cell phones, two way radios, and telephone stations.

Often facilities use a message book or another device to keep staff informed on current events, policy changes, and other important information regarding the workplace. It is recommended that a system be developed to facilitate information sharing between staff and with management.

Public Communication

Signage

Updated signage will be required to educate users on the rules at the supervised waterfront. Additional signage may be required if the beach will be open for use at times when staff is not on duty.

Flag System

The public will require education in regards to the beach flag system. The system can be used to communicate when staff are on duty, and water conditions.

Communication System

It is important that staff have a method to communicate messages to the public at the waterfront. Often staff require a device to enhance their ability to communicate to large groups or to users at a distance. Devices to consider include PA systems, megaphones, whistles, and air-horns.

Public Education

It is recommended that programs and events be scheduled at the facility to provide public education and increase awareness on how to be safe in, on, and around the water. This role is important to educate users on expectations for safe use, not only providing them with the rules for safe use but raising their understanding of the rationale behind each rule, and further increase their understanding of Water Smart® behaviors.

Lifejacket Loner Station Program

A Lifejacket l**oner station is** operating at Fred Henne Territorial Park. This is a strategic program and important to maintain and operate throughout the waterfront season as it provides education, information, and equipment to waterfront users. It is recommended that the Hay River Territorial Park work with the Lifesaving Society to implement a Lifejacket Loner Station Program at the waterfront.

Swim to Survive Training

Neither Fred Henne or Hay River Territorial Park currently offer Swim to Survive programming. This is essential training that every child (and adults) should have access to and is an important component to drowning prevention. It is recommended that this program be offered at both territorial waterfronts.

Risk Management

Section 12

Every owner and operator of a waterfront facility has an obligation to provide a safe environment for every user of the waterfront. This obligation has been very clearly identified and affirmed by court decisions across Canada. It is important for owners and operators and staff to reference the Lifesaving Society's Waterfront Safety Standards when assessing safety at a waterfront.

It is important that staff at supervised waterfronts are currently certified while working at the waterfront. The Lifesaving Society establishes certification standards for aquatic environments.

Risk Management Plan

The Lifesaving Society recommends that every facility have a risk management plan.

It is recommended the following risk management process be used to determine risk and impact for each waterfront and include six (6) steps for developing a risk management plan.

- Identify Concerns
- Assess Safety
- Measure The Likelihood And Impact
- Rank Potential Incidents
- Develop Options
- Implement Strategy

Insurance

The owner and operator of a waterfront facility shall make certain that an insurance policy and liability coverage are in place to cover the facility, staff, volunteers, and users. Insurance coverage will need to be in place before staff are placed at the waterfront. It is important to understand the type of coverage and any requirements, limitations, or exclusions that may be conditions of the insurance policy.

Public Expectations and Behaviors

It is important that all of the posted rules are followed and enforced at the supervised waterfront. To assist with this process standardized messaging could be developed for staff to providing users with rational for each of the rules. Failure to enforce the posted rules could result in an increased liability for the owner/operator.

Access Control

Access to the waterfront will need to be established, evaluated, reviewed, and managed for each site. It will have to be determined if access will be allowed when the facility is not supervised. Data is not available on public use to indicate if access control will be required at the facility.

Lifeguard to Bather Ratio

There are no legislated lifeguard to bather ratio for waterfronts. Lifeguard to bather ratios will need to be established for each site and be included in the facility Safety and Supervision Plan. The Lifesaving Society conducts Lifeguard Positioning Analysis to assist operators in determining lifeguard positions, lifeguard to bather ratios, and the identification of limitations in the lifeguard surveillance system.

The Lifesaving Society's public pool safety standards can be considered and referenced in the development of lifeguard to bather ratios for each waterfront. The following chart identifies the minimum number of lifeguards for public (general/open) recreational swims in a pool of 400 square meters or less..

Number of bathers on the deck and in the pool	Minimum number of lifeguards on deck, on duty
0-40	1
41-80	2
81-140	3
141-200	4
201 and beyond	One additional lifeguard for each additional 100 bathers or fraction thereof

The pool lifeguard to bather ratios provided in this report represent a minimum standard for public pools. Circumstances like pool size, depth, design, equipment, usage, ability of patrons may require more lifeguards to be on duty to maintain a safe level of supervision.

Some additional factors to consider when determining lifeguard to bather ratios are:

- Type of activity
- Location of bathers / size of swim area
- Facility design
- High risk areas
- Waterfront amenities
- Age of users
- Swim ability

Rescue Equipment

Section 13

The equipment listed in this section is a recommendation for consideration in setting up a supervised facility. Equipment recommendations in this section are broken up into three categories.

Required rescue equipment which contains recommended items for any type of supervised facility. All facility staff should be trained to use this equipment.

Additional rescue equipment which includes specialized items that are recommended for a lifeguard supervised waterfront.

Optional rescue equipment which includes optional items for consideration at lifeguard supervised facilities.

Required Rescue Equipment

For all supervised facilities

Spine board Head Piece

Cost: $104+

Requirement: 1

Recommended: 1 for each spine board and 1 backup

Spine Board

Cost: $330+

Requirement: 1

Recommended: 2-3 additional boards for training/ back up

Throw Bag

Cost: $95.00+

Requirement: 1 per lifeguard station

Recommended: 2 for each lifeguard station

Rescue Tube

Cost: $75+

Requirement: 1 per lifeguard on duty lifeguard

Recommended: 12 for training/back up

First Aid Kit

Cost: $45+

Requirement: 1 per lifeguard station

Recommended: Lifeguard carry a fanny pack while patrolling

Beach Flag System

Cost: $30+ per flag

Requirement: 1 per lifeguard station

Recommended: 3 flags of each colour

Additional Equipment

Specialized equipment recommended for lifeguard supervised facilities.

Mask and Snorkel

Cost: $50.00+

Requirement: 1 per lifeguard on duty

Recommended: 1 for each lifeguard staff member

Rescue Board

Cost: $1200+

Requirement: 1 per lifeguard station

Recommended: 2 additional boards for training/ back up

Lifeguard Supervised Area Flags

Cost: $30+ per flag

Requirement: 1 per lifeguard station

Recommended: 2 flags

Lifeguard Chair or Tower

Cost: $27,303+

Requirement: 1 per lifeguard station

Recommended: 2 additional boards for training/ back up

Binoculars

Cost: $25+

Requirement: 1 per lifeguard station

Recommended: 1 for back up

Fins

Cost: $45+

Requirement: 1 per lifeguard

Recommended: additional for training / replacement

Optional Equipment

Optional equipment for lifeguard supervised facilities

Rescue Craft

Cost: $12,000+

Recommend: 1

Rescue Sled

Cost: $1,875+

Recommend: 1 per rescue craft

Oxygen Kit

Cost: $350+

Recommend: 1

With spare bottle, masks, and tubing

Closing

Section 14

There is much work to be done to implement a supervised waterfront system at both Fred Henne and Hay River Territorial Parks. It is anticipated that significant time would be required to develop all of the policies, procedures, safety inspections, safe work practices required for start up. All of these policies in addition to recommendations from the Aquatic Safety Audit reports would be required to be in place before staff are placed at the waterfronts.

In addition to development of administrative policies and procedures the Department of Industry, Tourism, and Investment would need to determine what level of supervision they are capable of providing at the waterfronts, taking into consideration the challenge of staff recruitment, financial resources, and public expectations.

It is important that whatever system is decided on that supports be made available to ensure its sustainability. Community involvement and support will be valuable when building a sustainable waterfront supervision system. Public buy in to the system is beneficial as the public will be required to follow all of the posted and enforced rules at the waterfronts.

Although staffing a waterfront can assist in preventing incidents and providing a professional rescue response when required. It is important for the public to take accountability for their behaviors while using the waterfront facilities. It is not possible to provide a staff person 24 hours a day seven days a week, to control all access points to open water, or to watch one individual all of the time. Public education aimed at promoting WaterSmart® behaviors when in, on, and around the water are essential to saving lives and preventing injury.

"Within Arms Reach" is a slogan used at aquatic facility's across Canada to remind caregivers to remain within arms reach of children at all times when they are in, on, or around water. This is a requirement to access supervised facilities, caregivers and their children who do not remain within arms reach may be asked to leave the facility.

Recently the Lifesaving Society and the Government of Northwest Territories was awarded a national award for collaboration on injury prevention through the work of the drowning prevention action group. The Northwest Territories Water Smart® program is an example of collaboration between the Lifesaving Society and the Government of Northwest Territories. Over the past 3 years this program has provided fundamental life skills relating to Water Smart® behaviors to twenty-five communities in the Northwest Territories. The Water Smart® program also contains a waterfront module that can be taught at every community to assess safety at their local swimming spot.

The Lifesaving Society has a commitment to provide ongoing support to the Government of Northwest Territories. The Society will continue to provide and improve its full service and training continuum. This continuum is available in communities throughout the Northwest Territories and includes Swim to Survive®, Swim for Life®, Canadian Swim Patrol, Bronze Medals, First Aid/CPR, BOAT, Lifesaving and Lifeguarding programs. The Lifesaving Society program continuum helps to build healthy and active communities across the Northwest Territories.

In closing it is important to note the focus of this feasibility study is for two waterfronts in the Northwest Territories. The Lifesaving Society has affiliate delivery partners located in communities throughout the Northwest Territories and will continue to work with them 12 months a year. This provides the opportunity to build sustainability and capacity in the Northwest Territories for safer waterfronts.

The Lifesaving Society is a National Charity that has a single mandate for drowning and injury prevention. The expertise and service of the Lifesaving Society is available and accessible to all (public, members, government, organizations, etc.).

Since the 1970's the Lifesaving Society has a long and proud history of working with communities, residents, and the Government of Northwest Territories.

Lifeguard Capacity

Appendix A

Lifeguard Capacity

Certified and current National Lifeguard - Pool as of March 10, 2012

Northwest Territories: 84

Yellowknife: 24

Hay River: 14

Certified and current National Lifeguard - Waterfront as of March 10, 2012

Northwest Territories: 0 (Lifesaving Society)

Yellowknife: 0 (Lifesaving Society)

Hay River: 0 (Lifesaving Society)

National Lifeguard - Pool certification but not current (January 1, 1970 - March 10, 2012)

Northwest Territories: 927

Yellowknife: 195

Hay River: 55

Have National Lifeguard - Waterfront certification but not current (January 1, 1970 - March 10, 2012)

Northwest Territories: 23

Yellowknife: 5

Hay River: 2

These statistics are from Lifesaving Society reports run on March 11, 2014. Number of certifications listed are for award holders whose address is recorded in the Lifesaving Society's member management database for the area identified.

Bronze Cross

Currently Certified as of March 10, 2012

Northwest Territories: 48

Yellowknife: 8

Hay River: 4

Lifesaving Society report run on March 10, 2014. Number of certifications listed are for award holders whose address is recorded in the Lifesaving Society's member management database for the area identified.

Certified between January 1 1970 to January 1, 2014.

Northwest Territories: 954

Yellowknife: 283

Hay River: 126

(Lifesaving Society)

Bronze Medallion

Currently Certified as of March 10, 2012

Northwest Territories: 64

Yellowknife: 19

Hay River: 4

Lifesaving Society report run on March 10, 2014. Number of certifications listed are for award holders whose address is recorded in the Lifesaving Society's member management database for the area identified.

Certified between January 1 1970 to January 1, 2014.

Northwest Territories: 1192

Yellowknife: 434

Hay River: 176

(Lifesaving Society)

National Lifeguard - Waterfront

Appendix A

The National Lifeguard waterfront certification is designed to develop fundamental values, judgement, knowledge, skills, and fitness required by waterfront lifeguards. The National Lifeguard waterfront course emphasizes the lifeguarding skills, principles and practices, and the decision making processes which will assist the lifeguard to provide effective safety and supervision in waterfront environments.

Course Prerequisites

Lifesaving Society Bronze Cross
16 years of age

Course Length

40 hours

Test Items

1. Demonstrate knowledge of the principles and techniques of the lifeguarding included in the National Lifeguard test items, and answer questions drawn from the Canadian Lifesaving Manual and Alert: Lifeguarding in Action, including:

- Explain the role and responsibilities of the National Lifeguard in terms of role-modeling, prevention and rescue.
- Describe how critical incident stress can impact lifeguards responding to both successful and unsuccessful rescues.
- Define the legal obligations of the lifeguard in terms of duty and standard of care, liability and negligence.
- Provide an example of a training activity to improve one component of physical fitness (muscular endurance, cardiovascular endurance, strength, speed, power or flexibility) as identified by the evaluator.
- Explain how to adapt emergency procedures for a waterfront with only one trained lifeguard on duty; how to use auxiliary staff or bystanders; and discuss the value of written procedures as part of the staff manual.
- Provide examples of regulations that govern workplace heath and safety for lifeguards (e.g.; WHMIS, Occupational Health and Safety, Worker's Compensation) and legislation regarding harassment and violence in the workplace.

Explain the benefits of oxygen therapy, automated external defibrillation (AED) and oropharyngeal airways.

Explain proper selection of rescue equipment appropriate for open-water environments including: mask, fins and snorkel, rescue craft.

2a. Demonstrate aerobic endurance: Run 100 metres with a rescue aid to enter the water; swim 100 metres to recover a conscious victim; tow the victim 100 metres - all within 6 minutes.

2b. Demonstrate anaerobic fitness: Approach 5 metres on a beach with a rescue aid and fins; enter the water, don fins and swim 50 metres.

2c. Demonstrate strength and fitness: Approach 5 metres on the beach; enter the water to turn over and recover a passive or unconscious victim in waist-deep water; return the victim to shore and carry or drag 15 metres form the waters edge.

3. Demonstrate an understanding of:

- Features that vary from waterfront to waterfront (or from time to time) and how analysis of these affects lifeguarding.
- Environmental hazards of a waterfront

4. Demonstrate effective communication with patrons, victims, other lifeguards, supervisors and emergency service personnel.

5a. Demonstrate effective waterfront supervision using observation skills and scanning techniques.

5b. Demonstrate effective waterfront supervision using lifeguard positioning and rotation.

5c. Demonstrate ability to recognize situations in which early intervention may prevent a rescue emergency.

6. Demonstrate three entries with a rescue aid and three removals appropriate for a waterfront environment.

7. Demonstrate effective use of a rescue board or rescue craft; Approach 5 metres on the beach; enter the water with a rescue craft; pick up a victim 100 metres away and return to shore.

8. Demonstrate skin diving skills: Wearing a mask, fins and snorkel, swim 5 metres at the surface; head first surface dive and swim 15 metres underwater; surface, purge snorkel and swim 5 metres at the surface.

9. Demonstrate an effective search of the waterfront for a missing person as both a member and a leader of a lifeguard team.

10a. Demonstrate effective management of a distressed or drowning victim in deep water.

10b. Demonstrate effective management of a submerged, non-breathing victim and perform 10 cycles fo 30 compressions: 2 ventilations on a CPR manikin.

10c. Demonstrate effective management of a suspected spinal-injured victim with the assistance of back-up lifeguards and bystanders.

10d. Demonstrate effective management of an injured swimmer.

11. Respond to emergency situations as a single lifeguard and as both a member and leader of a lifeguard team.

Aquatic Emergency Care (AEC)

Appendix B

Aquatic Emergency Care (AEC) provides comprehensive training covering all aspects of standard first aid, CPR, AED, as well as skills specific to emergencies in an aquatic setting (shallow water rescue, and aquatic spinal management training). This course is recommended for lifeguards, aquatic instructors, lifesavers, and other individuals who may need to respond to a first aid emergency in an aquatic setting. Includes CPR C and AED certification. Swimming ability is not required.

Course Prerequisites

None

Course Length

20 hours

Test Items

1. Demonstrate primary assessment of a victim including:
   - Scene survey, level of consciousness, airway, breathing, circulation, major bleeding, mechanism of injury.
   - Define the legal obligations of the lifeguard in terms of duty and standard of care, liability and negligence.
2. Demonstrate one rescuer adult cardiopulmonary resuscitation on a manikin (with AED).
3. Simulate the treatment of a conscious adult with an obstructed airway. Including complications (pregnant or obese person).
4. Simulate the treatment of an unconscious adult or child with an obstructed airway.
5. Demonstrate the effective direction of bystanders to activate EMS.
6. Demonstrate the recognition and care of a victim suffering from:
   - hyperventilation
   - asthma
7. Demonstrate recognition and care of a victim suffering from:
   - shock
   - heart attack or angina
   - external bleeding
   - stroke / transient ischemic attack (TIA)
8. Demonstrate the recognition are care of a burn injury
9. Demonstrate the recognition and care of a facial injury
10. Demonstrate the recognition and care of an unconscious victim. Victim types should include fainting.
11. Demonstrate an understanding of the anatomy and the physiology of the respiratory and circulatory systems as well as the general principles of first aid.
12. Demonstrate an understanding of the principles of universal precautions, including barrier devices, washing hands, and using gloves.
13. Demonstrate an understanding of the legal implications of providing first aid treatment.
14. Demonstrate an understanding of the effects of stress on victims, rescuers, and bystanders, as well as the consequences of an unsuccessful rescue.
15. Demonstrate a secondary assessment of a victim including:
   - vital signs
   - head-to-toe
   - history
16. Demonstrate one-rescuer child cardiopulmonary resuscitation on a manikin (with AED).
17. Demonstrate one rescuer infant cardiopulmonary resuscitation on a manikin.

18. Demonstrate two-rescuer cardiopulmonary resuscitation on a manikin.

19. Demonstrate the treatment of a conscious child with an obstructed airway.

20. On a manikin, demonstrate the treatment of a conscious infant with an obstructed airway.

21. Simulate the treatment of an unconscious adult, child or infant with an obstructed airway.

22. Demonstrate the recognition and care of a victim with a suspected spinal injury on land.

23. Demonstrate the recognition and care of a victim suffering from:

- Heat cramps, heat exhaustion, and head stroke
- Hypothermia and frostbite

24. Demonstrate the recognition and care of a bone or joint injury.

25. Demonstrate the recognition and care of an abdominal or chest injury.

26. Demonstrate the recognition and care of a head injury.

27. Demonstrate the recognition and care of a seizure victim.

28. Demonstrate the recognition and care of a diabetic emergency.

29. Demonstrate the recognition and care of a victim suffering from suspected poisoning.

30. Demonstrate care of a victim with a suspected spinal injury in the water. Rescuer is to make all decisions and give direction regarding any assistance required.

31. Perform one rescue in an aquatic emergency situation designed to emphasize efficient victim recover, safe removal, from the water and competent victim care. Victim suffering ONE of: bone or joint injury; abdominal or chest injury; heat, cold, or pressure injury; facial injury; suspected spinal injury' severe chest pain; unconscious; external bleeding; and other medical emergency.

32. Demonstrate the treatment and care of a victim suffering from a pressure-related injury.

Bronze Cross

Appendix C

Bronze Cross is designed for lifesavers who want the challenge of more advanced training including an introduction to safe supervision in aquatic facilities. Bronze Cross is a prerequisite for all advanced training programs including National Lifeguard and Instructor certification.

Course Prerequisites

Bronze Medallion

Course Length

15-20 hours

Test Items

1. Starting on a deck, dock, or beach, demonstrate an entry and swim 50 m or yd. head up approach with a shoulder loop and line or rescue tube to a passive victim or manikin, and then tow the victim 50 m or yd. to safety.

2. Swim head-up for two sets of 6 x 25 m or yd. while maintaining a consistent pace and work-to-rest ratio. Rest for one minute between sets. Check your pulse after the last repeat in each set.

3. Swim 600 m or 650 yd. in 18 minutes or better using any combination of strokes of the candidates choice.

4. Demonstrate primary assessment f a conscious victim and a unconscious victim, including:

- Level of consciousness
- Airway
- Breathing
- Circulation
- Major bleeding
- Mechanism of injury
- Demonstrate secondary assessment of a victim, including:
- Vital signs
- Head-to-toe survey
- History

5. Demonstrate single rescuer adult, child, and infant cardiopulmonary resuscitation (CPR) on a manikin including:

- Complications with resuscitation (vomiting/drowning)
- Adaptations (mouth-to-nose, stoma)

6. Demonstrate two-rescuer adult, child, and infant cardiopulmonary resuscitation (CPR) on a manikin.

7. a) Simulate the treatment of a conscious adult or child with an obstructed airway.

b) On a manikin, demonstrate the treatment of a conscious infant with an obstructed airway

c) Simulate the treatment of an unwitnessed unconscious adult, child, or infant with an obstructed airway.

8. Demonstrate the care and treatment of a victim suffering from hypothermia.

9. Walk an aquatic environment scene, evaluate the ongoing activities, and demonstrate how to educate peers about safe aquatic leisure choices. Evaluate and correct, where appropriate hazardous conditions in unsupervised areas.

10. Recover and immobilize a face-down breathing victim with a suspected cervical spinal injury found in deep water. Transport to shallow water. Recruit and direct a trained bystander to assist. Demonstrate the ability to manage vomiting while maintaining immobilization.

11. Using bystanders, organize a logical underwater search of an area with both shallow and deep water to a maximum of 3 metres.

12. Perform a rescue involving two or more victims. One victim requires rescuer assistance, while the other

victim(s) can follow directions for self rescue and assist as bystanders once at the point of safety. The situation is designed to emphasize communication skills, victim care, removals, and follow up including contact with EMS.

13. Perform a rescue of a submerged, non-breathing victim. The situation is designed to emphasize victim care, removal, and follow up including contact with EMS.

14. Perform a rescue of an injured victim in a situation in which there are two rescuers. The rescue requires a 50 m or yd. approach and a 50 m or yd. return. The situation is designed to emphasize either contact or non-contact rescues, victim care, removals, and follow-up including contact with EMS.

15. Perform a rescue of a victim suffering injuries or conditions in a situation that emphasizes rescuer response to deteriorating circumstances and requires the use of bystanders. The rescue requires a 20 m or yd. approach and a 20 m or yd. return.

Bronze Medallion

Appendix D

The Lifesaving Society's Bronze Medallion Award teaches an understanding of the lifesaving principles embodied in the four components of water rescue education - judgement, knowledge, skill, and fitness.

Rescuers learn tows and carries, and defence and release methods in preparation for challenging rescues of increased risk involving conscious and unconscious victims of various types. Lifesavers develop stroke efficiency and endurance in a timed swim.

Course Prerequisites

Bronze Star or 13 years old

Course Length

15-20 hours

Test Items

1. Demonstrate accuracy in throwing buoyant aids. Throw a distance of 8 m placing the aid within 1 m of the centre of a target three times out of four.

2. Simulate self-rescue techniques for the following circumstances:

- Ice
- Moving Water
- Swamped or capsized boat

3. Starting in the water, demonstrate 20 m or yd. head-up approach, surface dive to recover a submerged victim or manikin, and return to the starting point using a control carry to support and carry the victim.

4. Demonstrate three defences from the front, side, and rear and three releases from the front, side, and rear. Assume a ready position and communicate verbally after each defence or release.

5. Swim head up 6 x 25 m or yd. maintaining a consistent pace and work-to-rest ratio. Check your pulse after the last repeat.

6. Swim 500 m or 550 yd. in 15 minutes or better using any combination of strokes of the candidates choice.

7. Demonstrate single rescuer adult and child cardiopulmonary resuscitation (CPR) on a manikin, including:

Complications in resuscitation (vomiting/drowning)

Adaptations (mouth-to-nose, stoma)

8. a) Simulate the treatment of a conscious adult or child with an obstructed airway

b) simulate the treatment of an unconscious adult or child with an obstructed airway

9. Demonstrate the appropriate recognition and care of a victim suffering from the following circulatory emergencies:

a) Shock

b) Heart attack or angina

c) External bleeding

d) Stroke and Transient Ischemic Attack (TIA)

10. Walk around an aquatic environment scene evaluate the ongoing activities, and where appropriate, model safe aquatic leisure choices.

11. Recover and immobilize a conscious breathing victim with a suspected cervical spinal injury in shallow water. Demonstrate recovery and immobilization with both a face-up and face-down victim. Recruit and direct bystanders to assist.

12. Perform a logical underwater search of a specified area to a maximum depth of 3 m

13. Perform a non-contact rescue in an aquatic situation designed to emphasize a low-risk rescue, victim care, removals with a bystander assistance, and follow-up including contact with EMS.

14. Perform a rescue of a non-breathing victim located in deep water, 5 m from a point of safety. The situation involves an unsupervised environment and is designed to emphasize victim care, removals with bystander assistance, and follow-up with including contact with EMS.

15. Perform a rescue of a distressed or drowning victim in open water, requiring a 20 m or yd. approach and 20 m or yd. return. The situation is designed to require either a contact or non-contact rescue with emphasis on victim recognition and appropriate care.

Shallow Water Attendant

Appendix E

The Shallow Water Attendant Program will provide candidates with scanning, communication and public relations skills to assist them in attending waterslide landing areas, lazy rivers, and other areas where the water is less than 1.2m deep and under the direction and leadership of an National Lifeguard.

Course Prerequisites

14 Years of age

Aquatic Emergency Care

Course Length

4 hours

Test Items

1. Explain the role and responsibilities of the Shallow Water Attendant in terms of: Incident Prevention, Rescue Response & Public Relations.
2. Identify aquatic based amenities and identify the increased potential for danger in aquatic amenities.
3. Demonstrate an understanding of safety considerations and effective controlling for the following types of slide run outs and landing pools: Moderate slides, High speed slides, Drop-off slides, Free-fall slides, "Kiddie" slides
4. Demonstrate an understanding of safety considerations and effective supervision for river rides, including: Continuous rivers, Stop-and-go rivers, Slow rivers, & Activity rivers
5. Demonstrate an understanding of safety considerations and effective control for hot tubs
6. Establish effective supervision of shallow water using observation skills and scanning techniques.
7. Demonstrate effective communication of water safety policies to the public and victims. Demonstrate effective customer service skills while situated in a water environment.
8. Explain how to adapt emergency procedures for a facility; discuss the value of written procedures as part of a staff manual.

Population and Employment Data

Appendix F

Total Population:

City of Yellowknife:

2011- 19,234 (Statistics Canada)
2012 - 19,752 (NWT Bureau of Statistics)

Town of Hay River

2011 - 2,806 (Statistics Canada)
2012 - 3,601 (NWT Bureau of Statistics)

Unemployment Rate

City of Yellowknife:

2009 - 5.6% (NWT Bureau of Statistics)

Town of Hay River

2006 - 7.7% (NWT Bureau of Statistics)

Northwest Territories

2009 - 10.3% (NWT Bureau of Statistics)

Wage Data

City of Yellowknife

Lifeguard rate: $28.56-33.50 per hour

Town of Hay River:

Senior Lifeguard rate: $23.01 - 30.09 per hour

Lifeguard rate: $18.59 per hour

Hay River supplys a housing allowance of $5,815.20 per full time employee

Weather Data

Appendix G

There is no water temperature data available for Long Lake.

The average air temperature for Yellowknife, NWT in 2013:

Month	Mean Temperature C	Max Temperature C	Min Temperature C
January	-31.1	-27.6	-34.6
February	-20.1	-16.4	-24.1
March	-17.6	-11.3	-23.8
April	-9.4	-3	-15.7
May	7.8	16.3	2.0
June	16.1	22.1	9.9
July	15.1	20	10.1
August	15.8	20.2	11.4
September	9.8	14.2	5.5
October	1.3	4.5	-1.9
November	-14.1	-10.4	-17.7
December	-30.7	-26.4	-34.4

(Environment Canada)

There is was no water temperature data available at the time of this report for the Great Slave Lake.

The average air temperature for Hay River, NWT in 2013:

Month	Mean Temperature C	Max Temperature C	Min Temperature C
January	-23.8	-19.5	-28
February	-15.1	-10.5	-19.7
March	-16.7	22.7	10.7
April	-8.2	-3.2	-13.2
May	7.5	13.7	1.3
June	14.4	19.6	9.1
July	16.1	21.1	11.0
August	15.7	20.9	10.5
September	12.4	17.6	7.1
October	3.2	7.1	-0.7
November	-11.6	-7.6	-15.5
December	-25.1	-20.7	-29.5

(Environment Canada)

Budget Summary

Appendix H

This budget is an estimate of what it would cost to operate a supervised waterfront at both Fred Henne and Hay River Territorial Parks.

Option 2: Waterfront Attendants

Staff Wages	$63,260 / park
Professional Fees	$430 / park
Equipment	$2,310 / park
Administrative Supplies	$1,425 / park
Total	$67,425 / park
Grand Total	$134,8479

Start Up Costs: $7,280
Annual Operating Expense: $122,769
Season: June 14 to September 1
Based on service from 10am to 6pm 7 days a week
at both Fred Henne and Hay River Territorial Parks

Option 3: Limited Lifeguard Service

Staff Wages	$99,841 / park
Recruitment	$8,800 / park
Professional Fees	$650 / park
Equipment	$47,105 / park
Administrative Supplies	$1,500 / park
Travel	$2,300
Total	$160,196 / park
Grand Total	$320,392

Start Up Costs: $83,000
Annual Operating Expense: $237,392
Season: June 14 to September 1
Based on service from 10am to 6pm Saturdays and Sundays
at both Fred Henne and Hay River Territorial Parks

Option 4: Limited Lifeguard Service

Staff Wages	$192,717 / park
Recruitment	$20,600 / park
Professional Fees	$980 / park
Equipment	$44,285 / park
Administrative Supplies	$1525 / park
Travel	$3,300
Total	$242,807 / park
Grand Total	$485,614

Start Up Costs: $83,000
Annual Operating Expense: $444,354
Season: June 14 to September 1
Based on service from 10am to 6pm 7 days a week
at both Fred Henne and Hay River Territorial Parks

Limitations

The numbers provided above do not include:

- Additional costs that may be incurred by private contractors such as office space, telephones, insurance, computers, etc.
- Capital project costs
- Waterfront maintenance costs (ie. sand sifting, security, etc.)
- Costs for additional staff if required
- Unexpected expenses

Sample - Aquatic Staff Manual

Appendix I

This list is included as an example for developing an Aquatic Staff Manual for a supervised waterfront facility. Content may be added or removed based on the identified training needs and job duties of the targeted staff. For some items it may be more appropriate to reference the staff member to another manual that may contain further details.

Introduction

- Welcome - identify the target of the manual (ie. Lifeguard/instructor)
- Table of Contents - page numbers and index - so information can be found quickly
- Vision/Mission of organization
- Staff conduct; Norms of behavior
- Facility location(s) and phone numbers
- Directions for travel to facility
- Facility description - answers to commonly asked questions (eg. Dimensions, depth, special features

Emergency Procedures

- General procedures - minor and major
- Detailed facility specific procedures - may include spinal procedures, evacuation procedures for fire or chemical exposure, power failure, missing person, lightning, bomb threat, violence, etc.
- Emergency signals
- Emergency phone procedures
- Follow-up procedures
- Management contact and notification procedures - include contact phone numbers
- Incident reporting procedures - include sample forms
- Procedures for handling the media

Aquatic Supervision Procedures

- Signals and staff communication system
- Lifeguard rotation procedures
- Lifeguard positions
- Lifeguard to bather ratios and decision making procedures
- Safety in change rooms
- Instructor safe teaching practices and class size restrictions
- Procedures for managing visiting groups (ie. Schools, camps) - briefing groups, supervision requirements

Operational Procedures

- Opening and closing procedures
- Equipment required on deck
- First aid stations - locations and required supplies
- Waterfront fouling procedures
- Daily telephone and emergency equipment checks

- Visibility check and procedures

Patron Rules

- Admission requirements of waterfront access without accompaniment
- Definition of direct supervision
- Age for opposite sex change room access
- General facility rules
- Equipment specific rules - hot tubs, diving boards, slides, pool toys, etc.
- Rule enforcement policies and patron discipline procedures
- Maximum bather load
- Customer service guidelines
- How to respond to customer complaint

Note: For maximum effectiveness, write the rules in the same wording used to explain the to customers.

Regulations

- List those regulations which are relevant for the staff targeted by the manual
- Use clear wording

Instructional Program Information

- Registration information
- First lesson procedure
- Final lesson procedure
- End of session paperwork
- Registration transfer policies
- Parent/spectator policies
- Facts on cross contamination
- Information on common childhood and communicable diseases
- Instructional devices for rescue breathing practice - use and disinfection
- Class cancellation and make-up policies - due to weather, pool fouling, etc.

Human Resources and Administration

- Position job descriptions
- Terms of employment
- Staff qualifications and records
- Staff orientation and in-service training requirements
- Staff work attendance and replacement policies
- Staff evaluation
- Staff discipline
- Staff uniform

- Pay rates and payroll procedures
- Time sheets
- Facility keys
- Facility rental - booking procedures
- Facility log book

Occupational Health

- WHMIS
- Sun and environmental safety
- Cash and reception safety (ie. Robbery safety program)
- Solo lock-up procedures
- Harassment policies
- Cross contamination protective measures

Maintenance and Water Testing

- Cleaning procedures
- Equipment repairs
- Water testing and records

Safety and Supervision Plan Contents

Appendix J

It is recommended that a safety and supervision plan contain the following information:

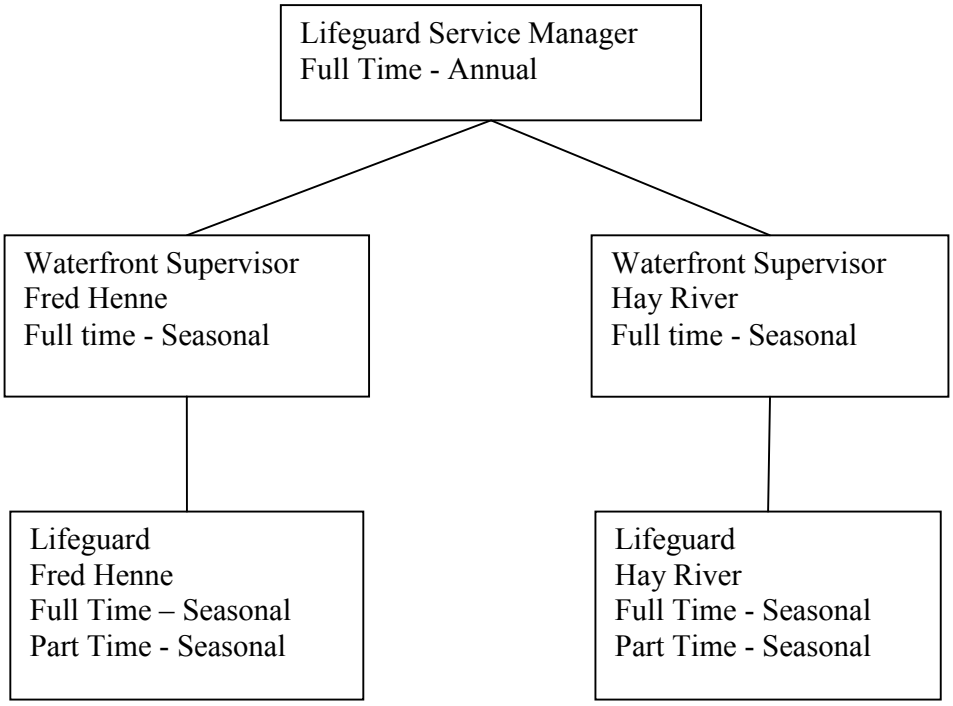
- Lifeguard Positions
- Rotation Plan
- Surveillance requirements
- Location of Lifesaving equipment
- Access to emergency services
- First Aid kit locations and contents
- Lifeguard to bather ratios
- Bather safety plans for special events
- Equipment inspection requirements
- Additional information as required

The Lifesaving Society has a Safety and Supervision Toolkit available as a comprehensive resource for pool owners, operators, and managers. It contains resources, tools and documents that can be used to establish policies, procedures and practices to create optimal safety. These tools provide supports that can assist owner/operators in meeting regulatory requirements for public and staff safety, updating systems to meet current industry practices and help manage risk at aquatic facilities.

Organizational Structure

Appendix K

The following is a proposed organisational structure for Option 2: Waterfront Attendants



Option 3: Limited Lifeguard Service
It is recommended that one part time (1) waterfront supervisor be hired for each site.

It is recommended that four (4) to six (6) part time National Lifeguards be hired to provide a staffed service at each waterfront two (2) days a week from 10am to 6pm. Additional lifeguards may be required based on user needs (number of bathers, unique challenges, extension to operational hours, etc.)

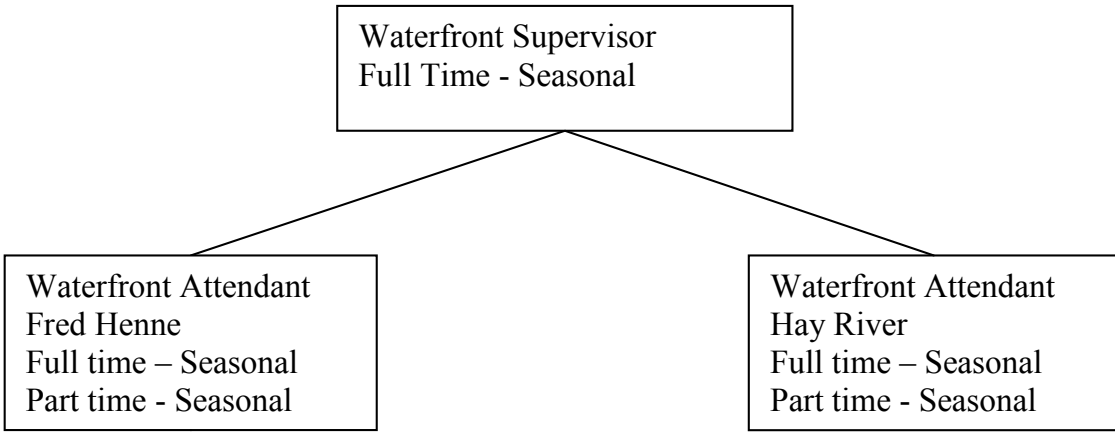
The proposed budget includes funding for four (4) lifeguards to be on duty during operational hours.

Option 4: Full Lifeguard Service
It is recommended that one (1) full time waterfront supervisor be hired for each site.

It is recommended that Four (4) full time National Lifeguards be hired in combination with four (4) to eight (8) part time National Lifeguards to provide a staffed service at each waterfront seven (7) days a week from 10am to 6pm. Additional lifeguards may be required based on user needs (number of bathers, unique challenges, extension to operational hours, etc.)

The proposed budget includes funding for four (4) lifeguards to be on duty during operational hours.

The following is a proposed organisational structure for Option 3 and 4: Lifeguard Service



Option 2: Waterfront Attendants

The proposed budget includes funding for one (1) full time waterfront supervisor to b hired to supervise the waterfront staff at both Fred Henne and Hay River Territorial Parks.

Consideration can be given to hiring two (2) Full time Waterfront Attendants in combination with two (2) to six (6) part time waterfront attendants to provide a staffe service at each waterfront seven (7) days a week from 10am to 6pm.

The proposed budget includes funding for two (2) waterfront attendants to be on duty during operational hours.

Job Descriptions

Appendix L

Title	Manager, Lifeguard Services
Date	TBA
Supervised By	TBA
Subordinates	Beach Captain(s), Lifeguards
Job Summary	The manager of lifeguard services will provide support to the waterfront management team through the organization of special events and carrying out assigned administrative responsibilities.
Job Duties	1. Management of staff
	2. Budgeting
	3. Programming
	4. Ordering
Job Specifications	1. Demonstrated knowledge of lifeguarding
	2. University degree
	3. Theoretical knowledge of accounting principles, inventory control, personnel management, and office protocol. Ability to prioritize and manage workload efficiently and without direct supervision.
	4. Working knowledge of PC applications such as MS Office, and familiarity with Windows XP and a network environment.
	5. National Lifeguard and Standard First Aid/CPR certification.
	7. Excellent organizational, verbal, and written communication skills
	8. 18 years of age
	9. Successful completion of a criminal records check.
Working Conditions	Monday to Friday from 10am-6pm (Eight hour shifts); 40 hours per week. Occasional weekend work.
Remuneration	$40.00 - $45.00 per hour
Term of Employment	Full-Time, Ongoing

Title	Waterfront Supervisor
Date	TBA
Supervised By	Manager, Lifeguard Services
Subordinates	All beach staff employed at their specific beach sites
Job Summary	Under the direction of the manager of lifeguard services, the Waterfront Supervisor is responsible for beach operations at their assigned beach location. The waterfront supervisor also fulfils job requirements of a Beach Lifeguard.
Job Duties	1. Assumes responsibility for the supervision of waterfront staff.
	2. Assists the manager of lifeguard services in his/her duties as requested.
	3. Assumes responsibility for the proper conduct and performance of the duties of staff under his/her supervision.
	4. Directs and assigns daily tasks and in-service.
	5. Ensures proper daily documentation of statistics and other administrative forms.
	6. Coordinates and organizes beach projects, utilizing other beach staff under the direction of the manager of lifeguard services.
	7. Assumes the responsibilities other responsibilities as required.
Job Specifications	1. National Lifeguard Waterfront Option. (Persons can apply with Pool Option)
	2. Lifesaving Society Aquatic Emergency Care / AED / CPR-C.
	3. One season with waterfront or surf lifeguard experience.
	4. National Lifeguard/First Aid/CPR Instructor/Examiner certification preferred.
	6. A high degree of mental alertness for long periods of time.
	7. Successful completion of the physical fitness-screening test.
	8. 18 years of age
	8. Successful completion of a criminal records check.
Working Conditions	Shift Rotation Sunday to Thursday / Tuesday to Saturday from 10am-6pm (Eight hour shifts); 40 hours per week.
Remuneration	$35.00 - $40.00 per hour
Term of Employment	May 26 to September 1, 2014

Title	Lifeguard
Date	TBA
Supervised By	Waterfront Supervisor
Job Summary	Under the supervision of the Waterfront Supervisor (or designate), supervises the designated swimming and beach areas; maintains constant surveillance to ensure the safety of bathers in the water and on the beach; keeps daily records; maintains beach and rescue equipment; performs related duties as assigned by the Waterfront Supervisor; participates in public relations projects and completes required in-service training.
Job Duties	1. Supervision of the designated swimming area. 2. Records and maintains daily, weekly, and monthly records. 3. Maintains the beach and rescue equipment. 4. Maintains personal fitness. 5. Completes reports as required. 6. Public education.
Job Specifications	1. National Lifeguard Waterfront Option. 2. Lifesaving Society Aquatic Emergency Care / AED / CPR-C. 4. A high degree of mental alertness for long periods of time. 5. Successful completion of the physical fitness-screening test consisting of a two mile run, a 500m swim and a 50 m. manikin approach/carry. 6. 18 years of age 7. Successful completion of a criminal records check.
Working Conditions	Eight hour shifts, up to 40 hours weekly. Hazards associated with outdoor aquatic environment and of rescuing drowning victims (e.g.: sun, inclement weather, dangerous water conditions)
Remuneration	$30.00 - 35.00 per hour
Term of Employment	June 10 to September 1, 2014

Title	Waterfront Attendant
Date	TBA
Supervised By	Waterfront Supervisor
Job Summary	Under the supervision of the waterfront supervisor, the waterfront attendants will monitor activities taking place at the waterfront, educate the public on Water Smart® behaviors, and work with Park Officers to provide a safe and inviting environment for users. Waterfront attendants will support public relations projects to raise public awareness of safe behaviors around in, on, and around water.
Job Duties	1. Monitor activities at the waterfront. The waterfront attendant is NOT a Lifeguard, their role is to monitor the activities taking place at the waterfront. They are not required to provide continuous surveillance of the water area. 2. Promote Lifesaving Society Water Smart® behaviors. Educate the public on how to be safe in, on, and around the water. Waterfront attendants will support Lifesaving Society Water Smart® activities to raise awareness of the drowning problem. 3. Run Lifesaving Society Swim to Survive Program. 4. Waterfront rule enforcement.
Job Specifications	1. Lifesaving Society Shallow Water Attendant. 2. Lifesaving Society Aquatic Emergency Care / AED / CPR-C. 4. Strong verbal communication skills. 5. Ability to swim. 6. 16 years of age. 7. Successful completion of a criminal records check.
Working Conditions	Eight hour shifts, up to 40 hours weekly. Hazards associated with working outdoors in an aquatic environment(e.g.: sun, inclement weather, etc).
Remuneration	$16.00 - $20.00 per hour
Term of Employment	June 10 to September 1, 2014

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