

QUALIFIED LIFEGUARD ZONES

A Comprehensive Guide for
Commercial Aquatic Venues

Developed with Wess Long, President, StarGuard ELITE

Introduction

For any commercial aquatic facility, dedicated Qualified Lifeguard surveillance is a critical component of providing a safe experience. Surveillance by Qualified Lifeguards plays a key role in the prevention of drowning, as well as the consistent monitoring of other potential risks and the enforcement of safety rules and regulations.

When determining how many Qualified Lifeguards may be needed for a specific environment, or the most effective placement of each Qualified Lifeguard, operators should be familiar with the following guidance and procedures. This guidance uses proven techniques and procedures to effectively establish Qualified Lifeguard zones and ensure surveillance meets industry standards for recognition and response.

For decades, there have been many other methods used to determine Qualified Lifeguard staffing including but are not limited to: Ratios of Qualified Lifeguards to bathers; surface area square footage; and the specific programming or activities occurring in the zone. These methods have various levels of merit however they potentially do not account for a wide variety of other factors including sightlines, response times, water depths, lighting, attractions, obstructions, or other elements that may prohibit a Qualified Lifeguard from being able to see a distressed or drowning bather and respond in a sufficient amount of time.

This guidance document is intended for commercial aquatic venues as identified in [Model Aquatic Health Code](#) (MAHC) 6.3.2.1. It does NOT apply to open-water or waterfront environments such as lakes, beaches, rivers, and the watersports area of artificial lagoons.

Establish a Qualified Lifeguard Staffing Plan

Section 6.3.3 of the MAHC establishes the minimum standards of a Safety Plan recommended for all aquatic facilities. The first element listed in the Safety Plan elements is a Staffing Plan.

When developing or revising a Qualified Lifeguard Staffing Plan, the owner/operator should ensure the plan accommodates the Qualified Lifeguard team's ability to:

1. Identify, communicate, and mitigate health and safety hazards
2. Facilitate closures, if necessary
3. Enforce rules and regulations
4. Respond to emergencies
5. Provide supervision adequate to achieve the above responsibilities

Minimum staffing levels should be driven by the following requirements:

- The need to establish zones of surveillance based upon the Qualified Lifeguard's ability to recognize and respond to aquatic emergencies
- The need to provide rotations for Qualified Lifeguards per MAHC 6.3.3.1.2
- The need to respond to emergencies as per the Safety Plan and the Emergency Action Plan for each zone of patron surveillance
- The need to provide periodic rest breaks, e.g., lunch, for Qualified Lifeguards within company or organizational policy and applicable labor laws
- The need to perform opening and closing responsibilities
- The need to provide pre-service training, and monthly in-service training
- The need to provide adequate supervision for the Qualified Lifeguard department

With these various requirements in mind, the next steps will be determining the specific quantity and location(s) to meet the standards.

The Basics of Positioning a Qualified Lifeguard

When beginning the process of determining how many Qualified Lifeguards an aquatic venue may need or where to position the Qualified Lifeguard(s), MAHC 6.3.3.1.1 provides specific guidance about a zone. The MAHC specifically states:

6.3.3.1.1 Zone of Patron Surveillance

When QUALIFIED LIFEGUARDS are used, the staffing plan shall include diagrammed zones of PATRON surveillance for each AQUATIC VENUE such that:

- 1. The QUALIFIED LIFEGUARD is capable of viewing the entire area of the assigned zone of PATRON surveillance;*
- 2. The QUALIFIED LIFEGUARD is able to reach the furthest extent of the assigned zone of PATRON surveillance within 20 seconds;*
- 3. Identify whether the QUALIFIED LIFEGUARD is in an elevated stand, walking, in-water and/or other approved position;*
- 4. Identifying any additional responsibilities for each zone; and*
- 5. All areas of each AQUATIC VENUE are assigned a zone of PATRON surveillance.*

The MAHC establishes that all areas of each venue are assigned a zone, and within each assigned zone the Qualified Lifeguard can view the **ENTIRE** area, including the surface, middle, and bottom of the pool. This ensures all areas of each venue (as designated by MAHC 6.3.2.1) within the facility are under the surveillance of a Qualified Lifeguard. Using this information will allow the operator to determine how many Qualified Lifeguards are needed, and the best positioning to locate each.

The next steps require the verification or validation of the zone. Verification or validation of a zone ensures the Qualified Lifeguard can reach the furthest extent of the zone within 20 seconds. This process also determines if a Qualified Lifeguard should be elevated, walking, or other approved positions.

The process to verify or validate a zone will be discussed in greater detail on the following pages.

Create Zone Charts

For each Qualified Lifeguard position, the facility should create and maintain documentation of diagrammed zones for each zone of patron surveillance. This documentation is commonly referred to as a Zone Chart or Zone Map, and should include the following elements:

- The name of the aquatic venue (pool or attraction name)
- The common name of the position
- A short description of the zone (including any landmarks or unique characteristics such as ropes, lines, buoys, rocks, or other markers that exist to help in identifying the zone parameters)
- Any special considerations or procedures (such as requirements for sitting, standing, roving, in-water, or other approved methods required to maintain appropriate surveillance)
- A diagram or visual depiction of the zone. Diagrams may be developed using site plans, photos, maps, drawings, or sketches. It should clearly illustrate the body of water, the zone of patron surveillance, and the specific position of the Qualified Lifeguard.
 - If allowed to rove, the roving area should be designated.

Zone Charts can also include any position-specific additional responsibilities, such as rule enforcement considerations or attraction operation requirements.

Zone Charts should be reviewed during job orientation and/or attraction-specific training. Zone Charts should be conspicuously posted either at each Qualified Lifeguard position and/or other areas commonly frequented by Qualified Lifeguards (office, break room, etc.).

Conduct Zone Verifications

To ensure proper positioning of a Qualified Lifeguard and confirm the assigned zone can provide surveillance and response within the confines of [MAHC 6.3.3.1.1](#), the facility must conduct a practical test of the zone to ensure it meets the standards. This procedure is commonly referred to as a Zone Verification (or Zone Validation).

Conduct Zone Verification *(continued)*

Zone Verification does two things:

1. Confirms the placement of the Qualified Lifeguard can reach the furthest extent of the zone within 20 seconds.
2. Determines if a Qualified Lifeguard should be elevated, standing, seated, roving, or other approved positions.

Zone Verifications are performed by placing a silhouette or manikin along the extremes of each zone as well as locations within the zone. Zone extremes include the edges of the zone, as well as any features, entry/exits, attractions, ramps compliant with The Americans with Disabilities Act (ADA), or other unique aspects of the zone. During the Zone Verification process, a Qualified Lifeguard must verify that **all manikin and/or silhouette placements are visible from the designated Qualified Lifeguard position**. As an alternative to manikins or silhouettes, there may be other submersible devices designed for the purpose of verifying a zone.

When conducting a Zone Verification, the Qualified Lifeguard must have complete visibility of the top, middle, and bottom of all aspects of the respective zone. Zone Verifications must be conducted at various times of the day to account for movement of the sun and the potential resultant issues from glare or other environmental factors. Zone Verifications should additionally account for the potential activities within the zone, water features/attractions operating in the zone, lighting (natural & artificial), operational atmospheric conditions (weather), and other factors which may impact surveillance of a zone. **It is important that Zone Verifications are conducted with the same operational conditions that may exist while a Qualified Lifeguard will be on duty**. Zone Verifications should not be conducted only when a pool has all systems off and optimal lighting is achieved.

Conduct Zone Verification *(continued)*

For each Qualified Lifeguard position, the facility should create and maintain documentation of Zone Verifications. The documentation can accompany the Zone Charts. Zone Verification documentation should include:

- The name of the aquatic venue (pool or attraction name)
- The common name of the position
- The method of verification (manikin, silhouette, or other)
- A short description of the zone verification conditions (time, weather, lighting, operational conditions, etc.)
- Any additional special considerations or notes
- Confirmation that the entire zone was verified and tested
- Qualified Lifeguard(s) signatures certifying the visibility of all manikins and/or silhouettes

Zone Verification documentation should not show any “blind spots” as the purpose of this process is to verify the absence of any occlusions to the Qualified Lifeguard’s view of the entire zone including the surface, middle and bottom areas. If a physical or environmental occlusion exists and cannot be removed, such that the zone cannot be verified from the existing position of the Qualified Lifeguard, then the Qualified Lifeguard position, the Qualified Lifeguard zone, and/or the Qualified Lifeguard staffing levels should be adjusted to meet the standards as MAHC 6.3.3.1.1.

This guidance document was developed in coordination with **Wess Long**, president of [StarGuard ELITE](#). If you have questions or need additional guidance, contact CMAHC's Technical Director **Dewey Case** at Dewey.Case@CMAHC.org or CMAHC@CMAHC.org.

About CMAHC: [The Council for the Model Aquatic Health Code](#) (CMAHC) promotes health and safety for public swimming facilities in the United States. As a member-driven organization, CMAHC exists exclusively to advocate, evolve, innovate, promote implementation, organize research in support of, and advise [the Centers for Disease Control and Prevention](#) (CDC) on needed updates to [the Model Aquatic Health Code](#) (MAHC). Owned by the CDC, the MAHC is the only all-inclusive national pool code that addresses current aquatic issues.