

Association of Aquatic Professionals (AOAP)

Position Paper: Layers of Protection Around Aquatic Environments to Prevent Child Drowning

Executive Summary

Drowning is one of the leading causes of unintentional injury-related death among children in the United States and worldwide. The Association of Aquatic Professionals (AOAP) recognizes the critical need for a multi-layered approach to drowning prevention, emphasizing the implementation of overlapping and redundant protective barriers—commonly referred to as “Layers of Protection.” This position paper outlines best practices, synthesizes key guidelines and recommendations from local, state, and federal authorities, highlights the Model Aquatic Health Code (MAHC), and incorporates principles from the AOAP’s Respect the Water Drowning Prevention Campaign and leading drowning prevention foundations.

Introduction

Drowning is a preventable tragedy. Each year, thousands of children lose their lives or suffer severe injuries due to drowning incidents. AOAP’s mission is to reduce drowning through advocacy, education, and the promotion of scientifically validated prevention strategies. Central to this mission is the concept of Layers of Protection—multiple, simultaneous safety measures designed to prevent unauthorized or unsupervised access to water and to reduce the risk of drowning at every aquatic environment.

Defining Layers of Protection

Layers of Protection refer to the strategic implementation of multiple, independent safety measures that work in conjunction to prevent drowning. If one layer fails, others remain in place to provide a safety net. The primary layers include:

1. **Supervision:** Constant, undistracted adult supervision whenever children have access to water.
2. **Barriers and Access Control:** Physical barriers such as isolation fences, self-closing/self-latching gates, pool covers, and alarms to restrict unsupervised access.
3. **Education and Awareness:** Drowning prevention education for children and caregivers, including water safety skills and CPR training.
4. **Water Competency:** Ensuring children and adults can swim and know how to survive in water.

5. **Emergency Response Preparedness:** Readiness to respond quickly and effectively in emergencies, including having rescue equipment and trained responders available.
6. **Regulation and Policy Enforcement:** Compliance with applicable laws, standards, and best practice guidelines.

AOAP Respect the Water Drowning Prevention Campaign

AOAP's Respect the Water Campaign is a national initiative aimed at raising awareness and promoting actionable steps to prevent drowning. The campaign's core principles include:

- **Recognize the Risk:** Understanding that drowning can happen to anyone, anywhere there is water.
- **Educate:** Promoting water safety education and drowning prevention messaging in communities.
- **Support Layers of Protection:** Advocating for the consistent use of supervision, barriers, and water competency.
- **Empower Communities:** Providing resources and toolkits to support local prevention efforts.

The campaign encourages aquatic facilities, schools, and community organizations to implement and promote the Layers of Protection as integral components of their safety protocols.

Local, State, and Federal Guidelines

Local Guidelines

- Many municipalities require fencing, pool covers, and alarms for residential pools.
- Local codes may specify minimum fence heights (typically 4 feet or higher) and gate requirements.
- Some jurisdictions require lifeguard presence at public pools and waterparks.

State Guidelines

- Most states have adopted versions of the International Swimming Pool and Spa Code (ISPSA), which sets minimum standards for pool barriers, gates, and alarms.
- State departments of health often regulate lifeguard certification, facility inspections, and water quality.

Federal Guidelines

- **Virginia Graeme Baker Pool & Spa Safety Act (VGB Act):** Requires anti-entrapment drain covers and other safety features in public pools and spas.
- **Consumer Product Safety Commission (CPSC):** Publishes guidelines for pool safety, fencing, and supervision (e.g., CPSC Pool Safely campaign).
- **Centers for Disease Control and Prevention (CDC):** Offers data, recommendations, and the Model Aquatic Health Code (MAHC) for aquatic safety.

Model Aquatic Health Code (MAHC)

The Model Aquatic Health Code (MAHC), developed by the CDC, is a comprehensive guidance document that provides science-based standards and best practices for designing, operating, and managing aquatic facilities. Key MAHC recommendations for drowning prevention include:

- **Physical Barriers:** Use of isolation fencing, self-closing/self-latching gates, and locked access points.
- **Supervision:** Staffing requirements for lifeguards and staff training in surveillance and emergency response.
- **Signage:** Clear signage regarding pool rules, depth markers, and emergency procedures.
- **Safety Equipment:** Readily available rescue equipment (shepherd's crooks, life rings) and AEDs.
- **Policies:** Mandatory swim tests for children, designated swim zones, and requirements for non-swimmers to wear life jackets.
- **Emergency Action Plans:** Facility-specific protocols for rapid response to drowning incidents.

Drowning Prevention Foundations and Leading Organizations

In addition to AOAP, several foundations and organizations provide critical resources and advocate for Layers of Protection, including:

- **National Drowning Prevention Alliance (NDPA):** Promotes the 5 Layers of Protection framework.
- **American Red Cross:** Offers water safety education, lifeguard training, and CPR/first aid certification.
- **YMCA of the USA:** Provides swim lessons and safety instruction.
- **Safe Kids Worldwide:** Campaigns for home pool safety and supervision.

- **Pool Safely (CPSC):** National public education campaign to reduce child drownings.
- **SwimSafe Foundation, Joshua Collingsworth Memorial Foundation, Live Like Jake Foundation:** Support water safety education, swim scholarships, and awareness campaigns.

Recommendations for Aquatic Environments

Residential Pools

- Install four-sided isolation fencing with self-closing/self-latching gates.
- Use alarms on doors, windows, and pool covers.
- Supervise children at all times.
- Teach swimming and water competency skills.
- Keep rescue equipment and a phone nearby.

Public Pools and Aquatic Facilities

- Adhere to MAHC and local/state codes for barriers and supervision.
- Employ certified lifeguards and conduct regular drills.
- Post clear, visible signage with safety rules and emergency instructions.
- Maintain emergency equipment and AEDs on-site.
- Provide swim testing and life jacket programs for youth.

Open Water and Natural Bodies of Water

- Provide signage warning of hazards.
- Encourage use of U.S. Coast Guard-approved life jackets.
- Promote designated swimming areas with supervision.
- Educate the public on the risks of currents, drop-offs, and cold water.

Conclusion

Preventing child drowning requires a collaborative, multi-layered approach rooted in redundancy and vigilance. The AOAP urges all stakeholders—parents, facility operators, policymakers, and community members—to prioritize the consistent implementation of Layers of Protection. By

adhering to the Respect the Water Campaign, following local, state, and federal guidelines, embracing the MAHC, and leveraging resources from leading prevention organizations, we can save lives and ensure that aquatic environments remain places of joy and safety for all children.

References

1. AOAP Respect the Water Drowning Prevention Campaign Materials
2. Model Aquatic Health Code (CDC)
3. Virginia Graeme Baker Pool & Spa Safety Act
4. NDPA: Five Layers of Protection
5. CPSC Pool Safely Campaign
6. American Red Cross Water Safety Resources
7. YMCA Swim Safety Guidelines
8. Safe Kids Worldwide Pool Safety
9. SwimSafe Foundation, Live Like Jake Foundation, Joshua Collingsworth Memorial Foundation

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