

Webinar: Implementation of the Model Aquatic Health Code in Pueblo County, Colorado

July 26, 2023 Webinar Q&A

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1. Have you encountered any issues since adopting the MAHC where you are now in conflict with your state regulations?

As of today, we [Pueblo Department of Public Health and Environment (PDPHE)] have not encountered issues since adopting the MAHC in the regards to conflicts with our state regulations. In the Colorado regulations for swimming pools (Swimming Pools and Mineral Baths, 5 CCR 1003-5), there is a provision that states, "A city, town, a city and county, or a county or district board of public health established pursuant to section 25-1-508, C.R.S. may, at its sole discretion, voluntarily choose to adopt the Model Aquatic Health Code, in whole or in part, into its local ordinances or rules, to be administered and enforced by such city, town, city and county, or local public health agency."

Additionally, there is also a provision that aims to reduce issues where construction standards in the MAHC conflict with other local codes and that section states, "Where pool and spa construction standards in the MAHC conflict with locally adopted building, electrical, or plumbing codes, the more stringent of the conflicting code language shall have precedence."

So far, there have not been any issues with local or state regulations.

2. I understand that Colorado Department of Public Health and Environment is now looking to adopt the MAHC on a statewide basis. Are they working with you to adopt your new regulations?

We [PDPHE] have met several times with our state health department to adopt the MAHC statewide. We are excited to use our MAHC adoption journey to benefit a potential statewide adoption and look forward to consistency in regulations across the state.

3. How many variances have you issued?

We [PDPHE] have issued one variance for automated equipment for a wading/kiddie pool. We have issued four chemical room storage waivers (a type of variance that we made into its own form to make it easier for operators to fill out that also listed specific criteria for the operator to follow to keep the variance in force). We have one compliance agreement in

effect currently to allow additional time for automated equipment to be installed.

4. How did you define an undue financial hardship?

Determining an undue financial hardship is largely dependent on the reasoning given by the facility requesting the variance as well as the cost estimate they provide. Oftentimes, asking the following question can clarify if the update is truly an undue financial hardship or if additional time is needed to prepare for the upgrade cost: “If you were given an additional year to make this update, would you be able to make the change?” If the applicant says, “Yes, given additional time, we could make this update” then we would implement a compliance agreement to give them additional time to make the update. If the applicant says, “No, additional time to prepare and save for this upgrade will not alleviate this financial burden” then we know that no matter how much time they are given, the upgrade constitutes an undue financial hardship. Before issuing the variance, it would be verified the facility could ensure public safety if a variance was granted.

5. Could there be further description of what a spa and fountain are?

Our [PDPHE’s] definition of a spa follows the 2018 MAHC “Spa” definition, which is “a structure intended for either warm or cold water where prolonged exposure is not intended. Spa structures are intended to be used for bathing or other recreational uses and are not usually drained and refilled after each use. It may include, but is not limited to, hydrotherapy, air induction bubbles, and recirculation.

Our fountains follow the MAHC definition for “Interactive Water Play Aquatic Venue”, which means “any indoor or outdoor installation that includes sprayed, jetted, or other water sources contacting bathers and not incorporating standing or captured water as part of the bather activity area. These aquatic venues are also known as splash pads, spray pads, wet decks. For the purposes of the MAHC, only those designed to recirculate water and intended for public use and recreation shall be regulated.” We [PDPHE] inspect the same number of fountains now as we did before the MAHC was adopted.

6. Is there a case study that could be provided regarding the work conducted on the Legionella/Pontiac fever investigation?

There is not an official published case study for the work conducted on the Legionella/Pontiac fever investigation. There was an internal report that was prepared following the incident. Please contact us [PDPHE] if you would like additional details about that investigation.

7. Did you find that the number of pools under your scope greatly increased with the MAHC? Did you start inspecting apartment and HOA pools which are not really covered by Colorado’s regulations?

As per Colorado state statute, we [PDPHE] do not inspect apartment or HOA pools. These are categorized as “Private Pools” in our old regulations and are exempt from inspection currently in Colorado. However, if we were to add apartment complexes and HOA pools after a change in state statute, there would be an additional 15+ venues added to our inspection list.

8. Did your inspections take significantly longer? (post-MAHC implementation)

Prior to adopting the MAHC, we [PDPHE] began tracking inspection time in a better way to allow easier data analysis. We were able to capture an average of .94 hours from 28 routine inspections (including time to write the report) in November and December 2021 (pre-MAHC). Looking at inspection time prior to November 2021 would be more cumbersome.

Since starting MAHC inspections and updating internal policies for time tracking, the average time for our inspectors to complete field work and the subsequent report writing for a routine recreational water inspection is 1.92 hours. This was the average time from 115 routine inspections. We expect those averages to go down as fully trained inspectors become more comfortable with the inspections. Overall, we saw an average increase in inspection time of .98 hours.

9. Do your regulations also include the requirements for lifeguards at pools? If they are required, were there any exemptions?

Our [PDPHE’s] regulations do include the requirements for lifeguards at pools per MAHC 6.3.2 Aquatic Facilities Requiring Qualified Lifeguards. We [PDPHE] do not have exemptions written in the code specifically for lifeguards. As of today, we have not encountered a facility that did not have lifeguards where required per MAHC 6.3.2.

Safety personnel were not required in our old regulations, 5 CCR 1003-5, but facilities were proactive in maintaining safety personnel on their own, so there have been no issues during our inspections.

10. When you were surveying these facilities for the current equipment, was this done during routine inspections or was this a survey that was sent out?

The survey was sent out to all inspected recreational water facilities in Pueblo County. We [PDPHE] would have liked to visit each facility to collect the information in-person, but there was little time to do so between our PDPHE Board of Health meetings in addition to the work required for COVID-19 mass vaccination clinics.

When a routine inspection was conducted in that time frame, a survey was solicited on-site to ensure the highest response rate possible. With this method, we received responses from 89% of our recreational water facilities.

11. With the MAHC, what did you close a pool for?

Our list of Imminent health hazards are as follows:

6.6.3.1 A Violations Requiring Immediate Correction or Closure

Any of the following violations are IMMEDIATE HEALTH HAZARDS which shall require immediate correction or immediate POOL closure:

- 1) Failure to provide supervision and staffing of the AQUATIC FACILITY as prescribed in MAHC 6.3.4.1;
- 2) Failure to provide the minimum DISINFECTANT residual levels listed in various sections of this CODE;
- 3) pH level below 7.0;
- 4) pH level above 8.0;
- 5) Failure to continuously operate the AQUATIC VENUE filtration and DISINFECTION equipment;
- 6) Use of an unapproved or contaminated water supply source for potable water use;
- 7) Unprotected overhead electrical wires within 20 feet horizontally of the AQUATIC VENUE;
- 8) Non GFCI protected electrical receptacles within 20 feet of the inside wall of the AQUATIC VENUE;
- 9) Failure to maintain an emergency lighting source;
- 10) Absence of all required lifesaving equipment on DECK;
- 11) AQUATIC VENUE bottom not visible;
- 12) Total absence of or improper depth markings at an AQUATIC VENUE;
- 13) Plumbing CROSS-CONNECTIONS between the drinking water supply and AQUATIC VENUE water or between sewage system and the AQUATIC VENUE including filter backwash facilities;
- 14) Failure to provide and maintain an ENCLOSURE or BARRIER to inhibit unauthorized access to the AQUATIC FACILITY or AQUATIC VENUE when required;
- 15) Use of unapproved chemicals or the application of chemicals by unapproved methods to the AQUATIC VENUE water;

- 16) Broken, unsecured, or missing main drain grate or any submerged suction outlet grate in the AQUATIC VENUE;
- 17) Number of BATHERS/PATRONS exceeds the THEORETICAL PEAK OCCUPANCY;
- 18) Broken glass or sharp objects in AQUATIC VENUE or on DECK area;
- 19) Water temperature exceeds 104°F.
- 20) Bacteria exceeds acceptable limits in two consecutive lab-tested water samples; or
- 21) Any other item determined to be a public health hazard by PDPHE.

IHH #3 Note: Our [PDPHE's] minimum pH parameter is 7.0, not the 6.5 listed in the MAHC. Our old regulations allowed a minimum pH of 7.2. At our next program evaluation, we will consider lowering the pH parameter to 6.5.

IHH #20 Note: Bacterial samples for total coliform are taken at routine inspections for interactive play features (fountains or spray pads) only. Historically, these are the venues that received positive water samples for total coliform. Samples for other venues are made upon request.

12. Do you require crypto testing on water from your splash pads?

We [PDPHE] do not require crypto testing on water from any venue in Pueblo County, just total coliform testing for recirculated fountains and spray pads.

13. How many facilities within your jurisdiction fit the “semi-private” pool definitions? Do these facilities have a higher number of pool accidents that show up in your reporting?

We [PDPHE] have 48 semi-public venues, which makes up about 65% of the venues in Pueblo County. Semi-public pools are defined as pools associated with hotels, motels, country clubs, health clubs and mobile home parks.

Of the three incidents that occurred at Pueblo County venues, two occurred at semi-public pools and one occurred at a public pool.

14. What is APX implementation cost from HS GovTech?

Please reach out to HS GovTech for more information; however, we [PDPHE] did learn the cost of implementing your data into HS GovTech can vary depending on the following factors:

- The number of estimated users, including admin users
- The programs you would like to use with the HS GovTech software
- The estimated number of inspections annually per program (ballpark)

15. What sorts of platforms did you use for surveying the stakeholders in your community and what platform did you receive the best response on? Also, where did you pull source information to create the “Pool Safety & You” class material?

We [PDPHE] used *SurveyMonkey* for the MAHC adoption surveys and added a QR code to the *SurveyMonkey* survey on hard copy surveys to give operators options for filling out the survey. The hope is they will use the QR code to lessen manual data entry though.

We seemed to get the best responses when we visited a facility for a routine inspection and got the survey filled out during the inspection. Unfortunately, we did not have the manpower to do this in-person approach for every facility during the survey collection window. This mismatch survey collection approach required us to use Excel to analyze and visualize results in the end, but it was a small price to pay to get feedback.

We used Zoom polls during stakeholder meetings for feedback before and after the meetings.

The “Pool Safety & You” class is one of our upcoming projects, so we have yet to pull together resources to create this course. We have general topics in mind for what to cover that would benefit any responsible supervisor of a venue, but we have much research to do before getting this project operational. Per the MAHC, a responsible supervisor is an individual on-site that is responsible for water treatment operations when a “qualified operator” is not on-site at an aquatic facility”. Our goal is to have this course ready by mid-2024. We welcome any feedback or resources others may have if this type of course has been created elsewhere.

16. What are the different kinds of facilities you have? How many are municipal facilities versus private owners?

The recreational water facilities we [PDPHE] inspect align with definitions from our old regulations, 5 CCR 1003-5, and are as follows:

- Semi-public pools, which are defined as pools associated with hotels, motels, country clubs, health clubs and mobile home parks.
- Public Pools, which are defined as pools that are not private pools or semi-public pools.
 - A “Private Pool” means any pool which is constructed in connection with or appurtenant to single family dwellings, condominiums or apartment

houses, and which is used solely by the persons maintaining their residence within such dwellings, condominiums or apartment houses and the guests of such persons. Private pools are exempt from these regulations.

We have 8 municipal facilities with a mixture of pools, kiddie pools, and interactive play features as well as 4 municipal fountains. The remaining 36 facilities are privately owned.

17. Did you increase inspection fees to cover the longer routine inspections?

A fee analysis was conducted in early 2023 and fees were increased in part to cover the increased inspection time for MAHC inspections.