

Rhode Island Department of Health

Cost-Benefit Analysis

Licensing Aquatic Venues

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Background

The Rhode Island Department of Health (The Department) has the authority to review and approve all aquatic venues in Rhode Island. Prior to an aquatic venue opening, the Department will review and approve engineering plans for construction, then inspect to ensure that the construction of the aquatic venue was done according to the design plans and that the equipment, such as pumps and filters, were installed properly. Aquatic venues are then inspected annually thereafter.

With a rise in aquatic venue applications and a stagnant number of Department staff to review applications, there has been a considerable backlog of applications over the past few years. Each aquatic venue review takes an average of 40 hours of staff time, and sometimes more depending on the complexity of the design.

Department staff that review the aquatic venue plans are engineers who have received licensure from a professional licensing organization. As such, the independent engineers hired by an aquatic venue owner would have the same background as Department engineers.

Proposed Regulation

The proposed regulation would provide aquatic venue applicants or licensees an option to either have the Department to review all design and construction of aquatic venues or allow the applicant or licensee, at his or her own expense, to hire a professional engineer to review plans and specifications for the construction of the new aquatic venue, or substantial and non-substantial alterations to existing aquatic venues, or an in-kind replacement for existing aquatic venues.

The regulation also permits a private engineer, hired by the aquatic venue owner at his or her own expense, to conduct a conformance inspect after the completion of the construction and certify to the Department that the aquatic venue was built in accordance with the Aquatic Venue Design Compliance Form.

Costs and Benefits

There is currently no fee charged by the Department to review plans for pools. However, there is an annual aquatic venue fee that the Department charges and ranges from \$25 to \$250 depending on the type of aquatic venue and non-profit status.

Aquatic venue licensees or applicants who elect to use a private engineer would incur an additional cost but would likely have a quicker approval process. There are many engineering specialties that would be qualified to perform this type of work such as a civil or environmental engineer. The Bureau of Labor Statistics provides that the median Rhode Island civil engineer hourly wage is \$47.73¹. As the engineer would additionally design the pool plan and specifications, this will take longer than just reviewing the plan and specifications that the Department currently does. It is estimated that it normally would take between 40 to 120 hours, depending on the complexity, for a professional engineer to design the aquatic venue². The regulation requires the professional engineer to submit a compliance document that demonstrates conformity with Department regulations and statutory requirements. As the Department's professional engineers are the ones reviewing these forms but not filling it out, it is difficult for the Department to estimate the amount of time it will take for the hired engineer to complete the forms. However, it generally takes the Department's professional engineers 1 to 20 hours to review the compliance checklist, and if there are multiple variances, it could take even longer. It would be reasonable to assume, that a similar amount of time would be necessary for a non-Department professional engineer to compile the required information. This would then provide a total range of 41 to 140 hours for a professional engineer. This process would cost the aquatic venue owner between \$1,956.93 and \$6,682.20.

For aquatic venue owners that want to modify the existing aquatic venue, it would likely take considerably less time as the engineer is modifying an existing structure. Design plans for a pool renovation are estimated to take around 80 hours to complete³. Using estimates from the Department's professional engineers to complete the compliance checklist it would take between two to 15 hours. Costing the aquatic venue owner a total of between \$3,913.86 and \$4,534.35.

For in-kind replacements, the amount of time for design and review of these plans is one to five hours (using estimates based on experience from the Department's professional engineers) and would cost the aquatic venue owner \$47.73 and \$238.65.

¹ U.S. Bureau of Labor Statistics. (2022, March 31). *Rhode Island - May 2021 OEWS State Occupational Employment and Wage Estimates*. Occupational Employment and Wage Statistics. https://www.bls.gov/oes/current/oes_ri.htm

² Lira, J. (2021, June 8). How Long Does It Take to Build a Pool? California Pools. <https://californiapools.com/swimming-pool-blog/insights/how-long-does-it-take-to-build-a-pool/#:%7E:text=In%20general%2C%20you%20can%20expect,needed%20to%20achieve%20your%20vision>

³ California Pools & Landscape. (2021, July 6). How Long Does It Take To Remodel A Pool? <https://www.calpool.com/remodel-construction-timeline/>

Once the aquatic venue is constructed, the professional engineer would be required to conduct a conformance inspection. Based upon the Department’s own professional engineers who have previously conducted conformance inspections, it is estimated to take between 1 and 3 hours to complete. This would cost the aquatic venue owner between \$47.73 and \$143.19.

The total annual statewide costs can be determined by a summation of the annual number applications. Using a five year look back at the number of applications for each type of plans. On average there are eight new aquatic venues, nine alteration applications (seven substantial and two non-substantial) and two in-kind replacements for existing aquatic venues.

Annual Statewide Costs for All Applicants	
New Aquatic Venues	\$15,655.44 - \$53,457.60
Alteration of Aquatic Venue	\$35,224.74 - \$40,809.15
In-Kind Replacements	\$95.46 - \$477.30

The above estimates are the maximum statewide costs should all aquatic venue applicants or licensees elect to use a private engineer; however, this is unlikely to occur. If just half of the applicants elect to use a private engineer, then the estimated statewide costs are the following:

Annual Statewide Costs for Half of Applicants	
New Aquatic Venues	\$7,827.72 - \$26,728.80
Alteration of Aquatic Venue	\$15,655.44 - \$18,137.40
In-Kind Replacements	\$47.73 - \$238.65

Professional engineers must achieve and maintain licensure to be qualified for doing this work, which the Department engineers also maintain. As both Department engineers and privately hired engineers are held to the same licensing standards, there is no anticipated societal costs due to higher risk or safety by allowing independent professional engineers to design and review aquatic venue construction or modification. Additionally, if deemed necessary by the Department, the Department could still review the design compliance and inspect and approve all equipment used for an aquatic venue prior to the licensing approval.

The proposed regulation would reduce the backlog of aquatic venue plans currently with the Department and provide aquatic venue owners with an option for quicker approvals of their applications and thus construction can begin sooner.

Determination

Based on the above analysis, RIDOH has determined that the current proposed regulation provides quicker but equally safe design and construction of aquatic venues.

Pursuant to R.I. Gen. Laws § 42-35-2.8, RIDOH has determined:

1. The benefits of the proposed rule justify the costs of the proposed rule; and
2. The proposed rule will achieve the objectives of the authorizing statute in a more cost-effective manner or with greater net benefits than other regulatory alternatives.

Therefore, RIDOH's proposed regulation is the most cost-effective solution as benefits outweigh the costs.