

The Recreation Center is requesting for funds to convert our natatorium from a traditional chlorinating system and muriatic acid pH balancing, to an updated salt-water sanitizing system and CO₂ pH balancer.

Currently the Recreation Center operates on a \$15,000 per year chemical budget to allow for proper disinfection and balancing of our water in both our pool and spa. The system we are interested in installing would reduce that annual budget to \$1,000 per year. The system operates through an electrolytic cell that temporarily converts a salt solution into 100% available chlorine inside a chamber that instantly sanitizes our water before allowing for another chemical change to revert the solution back to harmless saltwater. The only materials needed for this system would be salt that only has to be replaced every 3-5 years at a cost of approximately \$200 and the monthly CO₂ rental of ~\$10. This system not only allows for a decrease in our annual operating budget (The system will have paid for itself and start allowing for saving in only 20 months), but also eliminates the current issues we are experiencing with introducing chlorine to our water. With our current method of sanitation many of our customers complain about strong chemical odor, chloramines, and how dry or irritated their skin becomes because of exposure. With the saline chlorination system those problems are eliminated; without high levels of chlorine in the water organic materials are incapable of binding with the chlorine molecule to form the combined chlorines, or chloramines. Many bathers compare swimming in a saltwater pool to a “spa-like” experience because of the nourishing effect the salt-water has on your skin. An added bonus of this system would be the reduced oxidation in our natatorium. Currently the high amounts of chlorine cause calcium deposits and rusting on many surfaces, the salinity of the pool (~2,300ppm) would greatly reduce both of these freeing up man hours being used for maintenance with the current system. To balance the pH this new system will introduce CO₂ directly to the water as it cycles creating carbonic acid to naturally balance the water. With this setup we could eliminate the storage of 30gallon vessels of muriatic acid on-site. Currently the room where this acid is stored is in ruin due to corrosive properties of the fumes. CO₂ is void of these properties harming our facility. The equipment that would be replaced at the Recreation Center would be recycled for use at the Outdoor Swimming Pool as an upgrade.

Current Chemical Budget	\$15,000.00
Proposed Chemical Budget	\$1,000.00
Initial Start-Up Cost	\$25,885.57
Months Before Savings Begin	20
Monthly Upkeep	~\$10.00