

Creative Funding Brings New Life to Aquatic Center

BY TANYA LAMB

An natatorium – or aquatic center as it is more commonly known – is a source of recreation and fun for any school, and Juanita High School in Kirkland, Washington, is no exception. At Juanita High School, which is in the Lake Washington School District (LWSD), the aquatic center has been a resource for high school students since it was built with the school in 1971.

At the aquatic center, people can participate in many activities such as competitive swim team, diving and lap swimming in an indoor facility that can be used year-round. The public has enjoyed use of the pool as well for open swim, lifeguard training, aquatic swim clubs and swimming lessons for children. In addition, the pool serves as a training center for the U.S. Masters swim program.

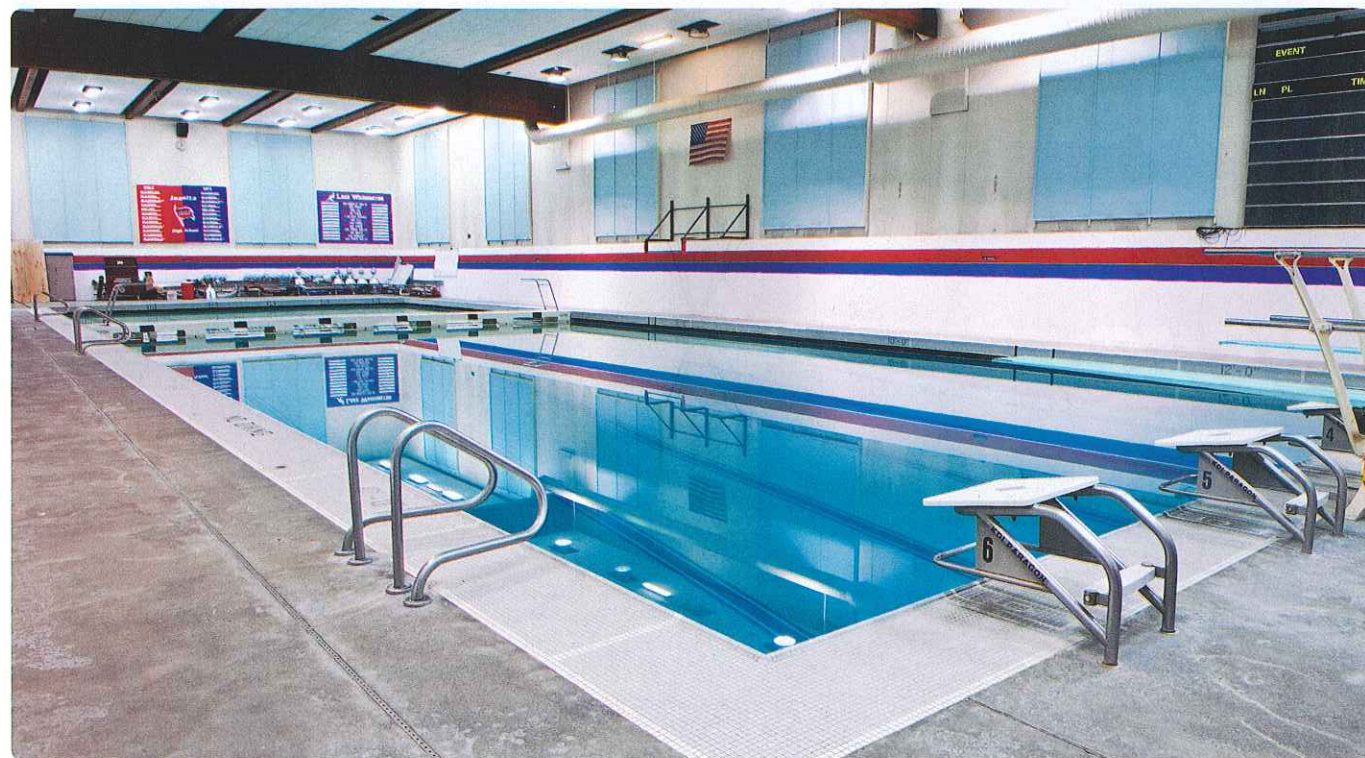
In 2009, however, the tides turned on this beloved pool as major cuts in funding forced district officials to look at the possibility of closing the aquatic center for good. Even with the aquatic center's revenues, the operating costs of the pool were approxi-

mately \$150,000 a year, and budgets were tighter than ever as the state of Washington called for \$610 million in cuts to public education funding.

"Juanita Aquatic Center was a vital part of the community, impacting so many lives in a positive way, and we were determined to find a way to keep it open," said Forrest Miller, LWSD director of support services.

LWSD's effort to fund the pool was just a small part of the overall energy savings effort for the district. The comprehensive plan for the LWSD included new lighting, HVAC, solar power, piping and other infrastructure improvements that were badly needed at many of the aging elementary, middle, junior high and high schools in the district.

An outside contractor, Wave Aquatic Centers, assumed management of the pool, buying more time for the project plan and enabling the pool to remain open.



The other major obstacle facing the aquatic center was obsolete infrastructure, which was driving up electricity costs and creating an unhealthy environment. With continually rising costs in power, the LWSD, like many districts in the country, had previously wanted to update its infrastructure but was limited by funding.

The occupancy lighting sensors, present in all rooms in the aquatic center, were no longer operating accurately. Natural gas boilers from the 1970s – the original heating system for the pool – were antiquated and lagging. The dehumidifier controlling the indoor climate was also operating ineffectively and put the entire aquatic center at risk for mold and mildew problems, which would cost thousands of dollars in damages.

LWSD sought a creative, alternative method to fund the improvements to the aquatic center. After research was conducted, LWSD decided on an Energy Savings Performance Contracting (ESPC) approach. The ESPC approach opened up funding sources like strategic grants to obtain a portion of the nearly \$100 million OSPI (Office of the Superintendent of Public Instruction) that had been allocated to the state of Washington schools by the federal government. The district's efforts proved to be a success.

Along with incentives from Puget Sound Power, a state grant from the Washington Department of Commerce and the OSPI dollars, the aquatic center finally had funding it needed to remain open, and even allowed for much-needed retrofitting to be done to the aquatic center's infrastructure in addition to many other schools and district buildings.

The complete scope of LWSD's energy savings project included five grant rounds and five construction phases. Each of the phases included elementary, junior high and high schools that were in need of renovations. The fifth phase also included an administration building.

To execute the ESPC approach, LWSD selected Apollo Solutions Group, an Energy Savings Company (ESCO) located in Portland, Oregon, to handle the project that made the schools, district build-

ings and the renovated aquatic center into improved facilities for students, staff and the community.

Director Alex Banks was glad to be part of the effort, "We were pleased to provide a project that impacted so many individuals in a positive way, creating greener, healthier and more comfortable environments in which to learn and have fun."

Cascade Power, an energy consultant in Seattle, was also part of the team and instrumental in the project's funding.

The first phase of the Juanita Aquatic Center retrofit project involved the installation of two new natural gas boilers. The new boilers, utilizing the latest heating technologies, provided more efficient heating of pool water and allowed for energy incentives from Puget Sound Power.

Second, new occupancy lighting sensors in the pool, offices and dressing rooms and were installed to reduce energy costs. Halogen lights from the 1980s were replaced with fluorescent bulbs, adding to the energy savings. Occupancy sensors reduced electricity costs, and they enabled the lights to remain on only during the aquatic center's use.

Third, a new dehumidifier was installed in the aquatic center. The installation of this piece of equipment was particularly important as a dehumidifier helps control mold and mildew in a humid aquatic environment. In addition, the warm dehumidified air was reused to help heat the pool water and the air inside the facility – not simply discarded as it is commonly done at other pools. Additional improvements included hot water piping.

The high school students and community are now benefiting from the salvaging of this popular pool and enjoying a healthier, more comfortable environment as well. The favorable outcome of Juanita Aquatic Center, and the other schools positively affected by renovations, is proof that when thorough research is done, funding for energy savings measures in schools is often available. ☉

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