SIU Sustainability Council Project
Final Report

Project title: Low Flow Shower Heads
Project I.D. #:
Award date:
Completion date: June 2015
Funds used (if different from award amount):

$4,500.00

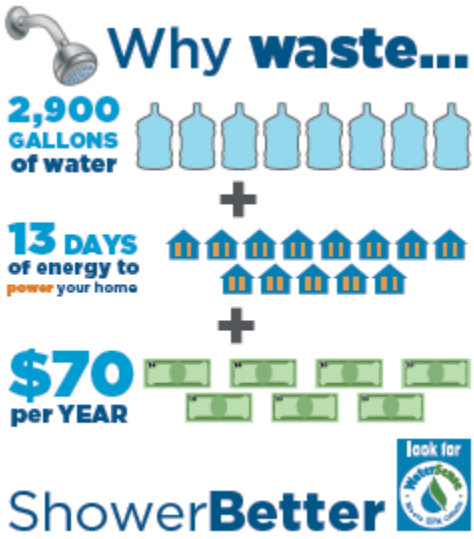
Brief write up of project/project experience (not to exceed 250 words):

Replace all shower heads to all showers in Men's and Women's Locker rooms with low flow 1.8 gal min shower heads.

Water Sense Savings

The average family could save 2,900 gallons per year by installing WaterSense labeled showerheads. Since these water savings will reduce demands on water heaters, they will also save energy. In fact, the average family could save more than 370 kilowatt hours of electricity annually, enough to power a house for 13 days.

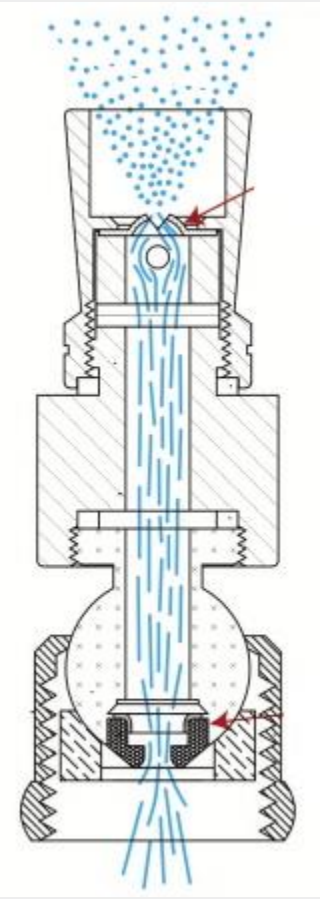
On a national scale, if every home in the United States installed WaterSense labeled showerheads, we could save more than $2.2 billion in water utility bills and more than 260 billion gallons of water annually. In addition, we could avoid about $2.6 billion in energy costs for heating water.



Solid Brass and

Stainless Steel Construction

with Brushed Nickel or Chrome Finish



Patented (U.S. patent #7,185,830) FCS™ Technology:
Without noise or temperature drops, a 1.5 gpm* stream is transformed into a full coverage spray of rain-like droplets with just the right force for showering and rinsing hair.

Small carbon footprint:
At about 2.5 inches long and 1 inch wide, this mighty mite uses less material and energy in its manufacture -- and it won't crowd a smaller shower area.

Non-plugging Design:
No need for gimmicky "self-cleaning" features with the FCS™ Technology. Water passageways are so large that they do not plug and do not need cleaning.

Pressure-compensating Flow Control:
Maintains constant 1.5 gpm* flow at varying pressures.

ICWT
International Center for Water Technology

A Partnership FOR YOUR FUTURE
Visit www.icwt.net

Performance Chart

Product:	1.5 GPM Showerhead
Manufacturer:	David Malcolm
Model:	FCS-100
Test Date:	1/23/08

Pressure (PSI)	Flow Rate (10 minutes) (GPM)
30	1.34
40	1.47
50	1.52
60	1.55
70	1.55
80	1.53

Why Recreational Sports and Services Chose HighSierra Showerheads:

Although the HighSierra Showerhead® flow is 40% less than traditional low flow showerheads, they are even less likely to **plug**. This is because the recently patented design creates a wide spray using a **single orifice** rather than many tiny orifices.
Incredibly, the **plugging problem** of low flow showerheads is not limited to the orifices alone. Nearly all of our competitors' models come equipped with the same **pressure regulator design** that directs water flowing into the showerhead through a narrow gap between a flattened 0-ring and a plastic ring (see Photo B below).
This gap will likely plug before the showerhead does. The HighSierra Showerhead® pressure regulator is **the only one in the industry** that regulates the flow of its showerheads using a time-tested single hole, conically shaped diaphragm with plenty of space for solids to pass through.

The new HighSierra Showerheads® LLC brand of 1.5 gpm*, water-saving shower heads is the first in the world to completely discard the old-fashioned ways of producing a low flow shower. That is because the decades-old methods of creating sprays (namely using multiple orifices or injecting air) just do not work when flows are reduced to under 2 gpm.
HighSierra Showerheads® utilize a new green technology (FCS™) that produces a luxurious-feeling spray from only 1.5 gpm* without plugging, making noise, or creating temperature drops. It is truly an amazing shower experience.
* Accuracy of flow rate is ± 10% between 30 psi and 80 psi

How do you define sustainability?
To endure, we as a society must transform our markets – both how we produce and consume, and the very ways in which we define and measure value and progress

Has this changed over the course of your project? If so, how?
No

What do you see as the next step for the project?
More education to our patrons and students on Water Sustainability!!!

Water–Efficient Showerheads

Showering is one of the leading ways we use water in the home, accounting for nearly 17 percent of residential indoor water use—for the average family, that adds up to nearly 40 gallons per day. That's nearly 1.2 trillion gallons of water used in the United States annually just for showering, or enough to supply the water needs of New York and New Jersey for a year! By retrofitting your showerheads with WaterSense labeled models, you can save a considerable amount of this water.

Shower with Power

Did you know that standard showerheads use 2.5 gallons of water per minute (gpm)? Water–saving showerheads that earn the WaterSense labelmust demonstrate that they use no more than 2.0 gpm. The WaterSense label also ensures that these products provide a satisfactory shower that is equal to or better than conventional showerheads on the market. EPA worked with a variety of stakeholders—including consumers who tested various showerheads—to develop criteria for water coverage and spray intensity. All products bearing the WaterSense label—including water–efficient showerheads—must be independently certified to ensure they meet EPA water efficiency and

Optional: Do you have any suggestions for the SIU Sustainability Council to improve the Green Fund award process?
Attach a minimum of five images – these will be used to promote interest in Sustainability Council projects. These can be photographs of the progress of the project, the completed project, or promotional materials.

Actual shower head photo from Recreation Center Men's Locker room shower.