

DOWN THE TOILET




Western Washington University

Water Assessment

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Project Goals


- Assess water consumption habits across campus
 - 2008/2009 total water charge: \$ 672,860.00
 - 2008/2009 total water use: ~ 88 million gallons
 - Audit two buildings:
 - Environmental Studies
 - Communications Facility
 - Focus on bathroom fixtures
 - Toilets & Urinals
 - Create a cost benefit analysis
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Significance to WWU & Bellingham

- WWU students represent approx. 1/6 of the total pop. of Bellingham.
 - Increasing population & decreasing natural resources.
 - Savings
 - Environmental
 - Monetary
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- A central image of a water droplet falling into a pool of water, creating ripples. The droplet is captured mid-fall, just above the surface, with a small splash of water below it. The ripples are concentric circles expanding outwards from the point of impact. The background is a dark blue gradient.

Case Study

Ferris State University

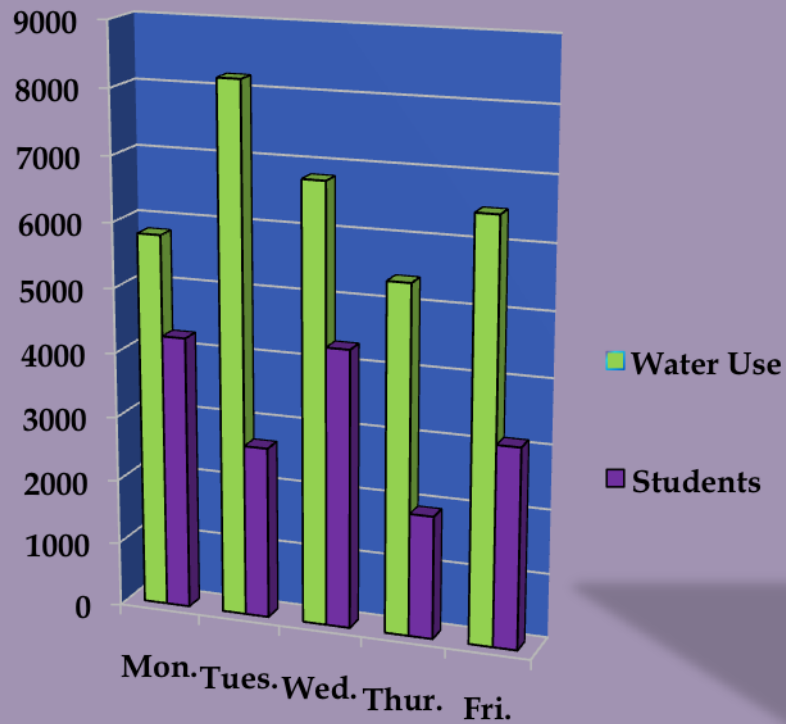
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- 146 pre 1971 Sloan Flushometers using a min. of 3.5 GPF.
 - Retrofitted all toilets with new Sloan A-38-A repair kits (\$ 12) and pressure caps called Conservacaps (\$ 13).
 - Results:
 - Saved an average of 38,000 gal of water per month.
 - Saved ~ \$305.90 a month and ~ \$3670.80 a year.
 - Cost of retrofit was \$3,650. Return on investment ~ 1 yr.

Sloan A-38-A repair kit & Conservacap

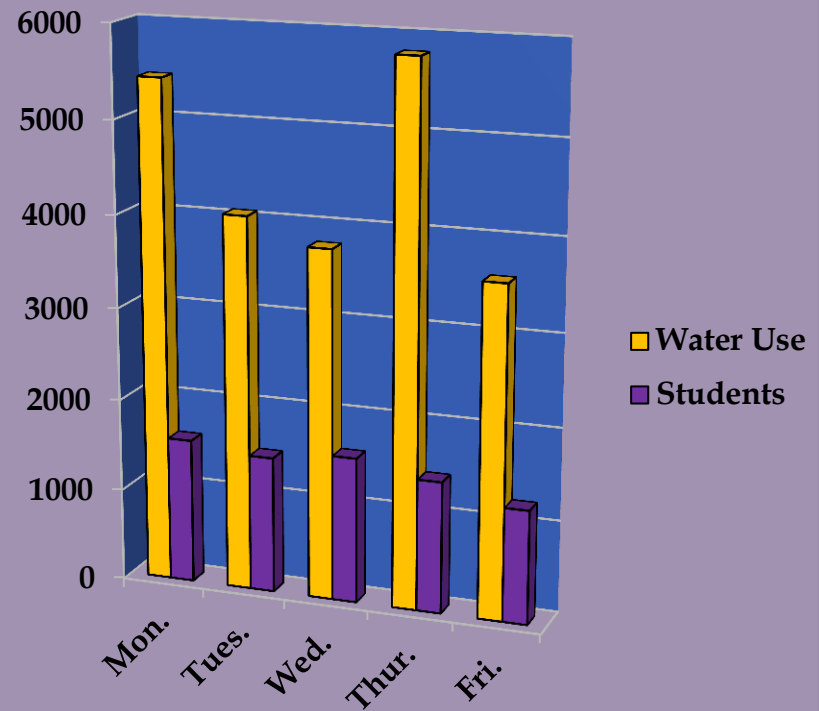


Findings

CF DAILY WATER USE (GAL) & STUDENT ENROLLMENT



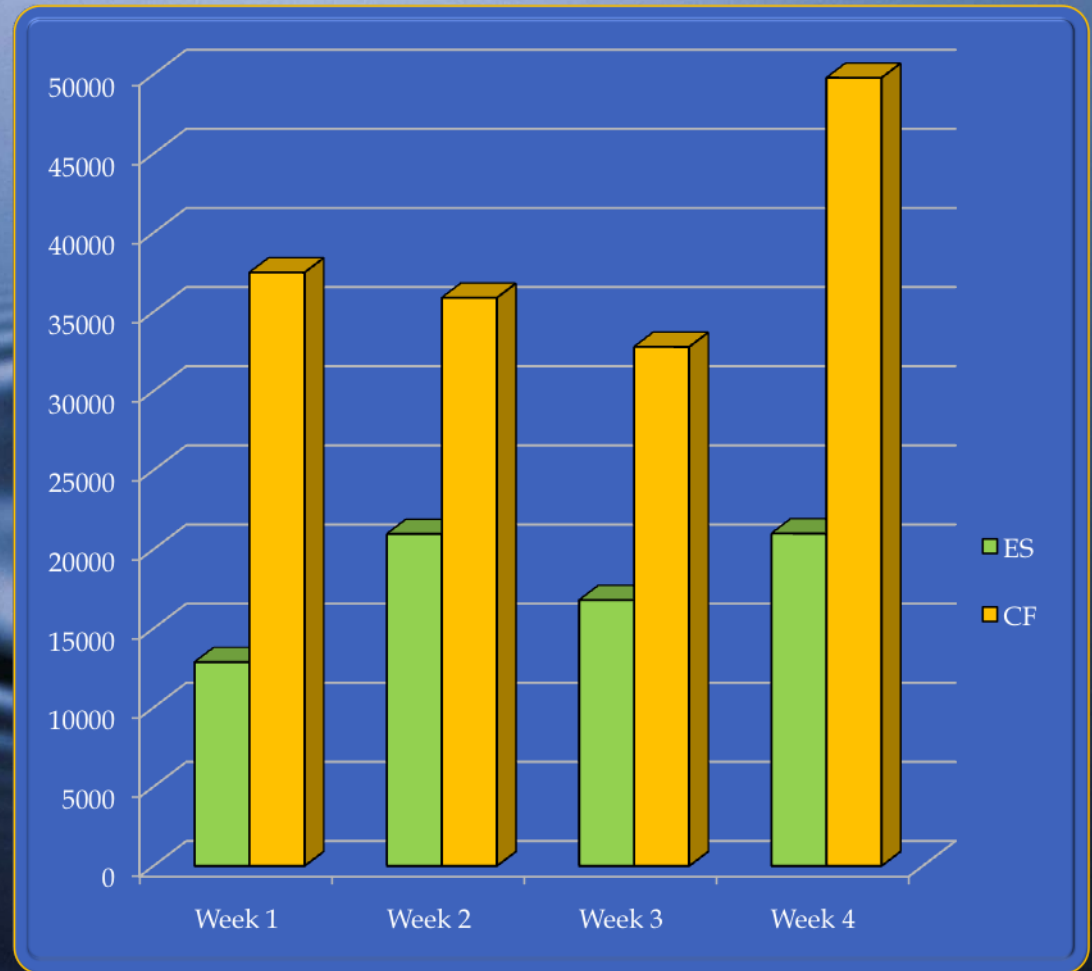
ES DAILY WATER USE (GAL) & STUDENT ENROLLMENT



Findings con't

- Average weekly water use for ES was ~ 17,000 gal.
- Average weekly water use for CF was ~ 34,000 gal.
- Weekly averages had high variations.


FEB. WATER CONSUMPTION (GAL)
OF ES & CF



Cost Analysis of ES

- 47 fixtures in ES
 - 30 toilets
 - 17 urinals
 - Replacing all old fixtures: ~ \$22,000
 - Retrofitting all old fixtures: ~ \$1,800
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- A water droplet is captured in mid-air, just above a pool of water. The droplet is perfectly spherical and reflects light. Below it, a splash of water has just occurred, creating a central column of water that is still rising, surrounded by several concentric ripples that spread outwards across the surface of the water. The background is a dark, gradient blue.

Recommendations cont.

- Trial run of Sloan A-38-A retrofit kit and Conservacap
 - Weekly monitoring system
 - Sub-meter installation on new buildings and all renovations
 - Continued assessment of water savings potential
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- A central image of a water droplet falling into a pool of water, creating ripples. The droplet is captured mid-fall, just above the surface, with a small splash of water below it. The background is a dark blue gradient.