

Athletic Facilities: Water Sustainability Leadership

Executive Summary

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This report considers the water use of the UBC Athletics Department in order to recommend water saving upgrades and a department wide sustainable water-use strategy. It was compiled for the UBC Athletics and Recreation Department in collaboration with the UBC Social, Ecological, Economic, Development Studies (SEEDS) and the UBC Water and Zero Waste Department.

The first section is an evaluation of a water use profile and report titled "Athletics Ability To Conserve: Investigating A University Athletic Facility's Water Consumption," produced for the Athletics Department by student intern Jennifer Bruce in 2013. This report included a water-use break down and suggested retrofits for the Student Recreation Centre, Thunderbird Stadium, and War Memorial Gym. This chapter summarizes Bruce's retrofit suggestion and examines the effect of the changes that were implemented. In the Student Recreation Center sink faucet aerators and low flow showers were installed as a result of the initial report. The resulting water savings were examined by compiling water meter data for the building from UBC Utilities.

In Thunderbird stadium a motion-sensor urinal flush controller was installed in the main men's wash-room to prevent constant flushing and sink aerators were installed in several of the facilities wash-rooms. Upon analysis of the water meter data for the facility it was revealed that water consumption had increased significantly since 2012 even after water saving upgrades had been implemented. As a result the usage of the building was re-examined and a schedule was superimposed on the metered data to determine the cause of the increased water usage. Several recommendations were made based on the relationship of the schedule to the water usage including an extensive leak test and the installation of motion-sensor urinal flush controllers in all men's washroom facilities.

The second section is a sustainable water use best practices study, including an examination of industry standards and the highest efficiency collegiate athletics facilities. The University of Colorado Boulder campus and University of Boston campus were considered in detail. Several suggestions for engaging students and fans in a department wide sustainability strategy were made.

The final section explores the feasibility of utilizing storm water and excess irrigation recapture to reduce the amount of potable water used for irrigation. Wright field in Thunderbird park was considered specifically as this field is believed to have the highest water consumption of all the athletics fields on campus. The two properties adjacent to Wright Field are scheduled for renovations within the next two years creating an opportunity to construct an underground storm water and irrigation run-off storage system or drip irrigation system. Several irrigation and rain storage specialists provided quotes for various reclaimed water systems.