University of California, Santa Barbara

Water Consumption Report Fiscal Year 2015 - 2016

WATER CONSUMPTION

In Fiscal Year (FY) 2015/16, the University of California, Santa Barbara (UCSB) consumed 654 AF of potable water via all of campus owned property. During this same fiscal year period, Goleta Water District distributed 11,778¹ AF to its customers in the Goleta Valley. UCSB's total potable water consumption in FY 2015/16 was 5.5% of all of the potable water distributed by Goleta Water District.

Potable Water

Permit #14

Permit #14 is a water allocation agreement between the Goleta Water District and UCSB. It states that, for the uses served by the meters listed below, UCSB's annual potable water consumption shall not exceed 953 AF. Geographically, this permit addresses allocation rights mainly on the Main Campus and West Campus Family Housing, and consists of locations from both the Facilities Management and Housing & Residential Services water use categories. FY 2015/16 saw UCSB consume 526 acre-feet of potable water under Permit #14. This represents 55% of UCSB's overall allocation under this permit.

Property #	Account # (last 6 digits)	Location Details	CCF	AF
140-200	742924	S. Los Carneros Rd.	199,429	458
140-090	742914	El Colegio Rd.	13,871	31.89
132-502	742084	Storke Rd. (West Campus Childcare)	1,084	2.49
150-006	571154	960 Embarcadero Del Norte (IV Theater)	342	0.79
132-485	742064	Storke Rd. West Campus 1	3,596	8.27
132-475	742024	Storke Rd. West Campus 2	3,355	7.71
132-490	742074	Storke Rd. West Campus 3	3,949	9.08
132-480	742034	Storke Rd. West Campus 4	2,876	6.61
TOTAL			228,502	526

Permit #16

Permit #16 is a water allocation agreement between Goleta Water District and UCSB, which was acquired through the acquisition the Devereaux School Site. The meter that feeds this site has an allocation of 66 AFY. FY 15/16 saw UCSB consume 7.6 AF (3,341 CCF) through the meter identified in this permit.

Bishop Ranch

At the historic Bishop Ranch site, there is a 200 AFY allocation under the purchase agreement for North Campus and parts of West Campus from the UEC (University Exchange Corp.). This allocation primarily serves the North Campus Faculty Housing and generally any uses west of Storke Road, north of El Colegio Road / Venoco Road,

¹ Goleta Water District Fiscal Year 2016-17 Final Budget Report

and a smaller area to the west of Devereux Slough. Through the meters that serve the buildings on the historic Bishop Ranch property, 13 AF (5,861 CCF) were consumed in FY 15/16.

Other Potable Sources

While the aforementioned are allocations associated with UCSB properties, the following are properties that UCSB owns or occupies and are served by a meter with no allocation restrictions.

Property #	Account # (last 6 digits)	Location Details	CCF	AF
	742094	Storke Rd (West Campus Child Care)	1	0.002
	570904	935 Embarcadero Del Norte (Emb. Hall)	202	0.46
	742184	6840 El Colegio Rd. (Santa Catalina 3)	14,676	33.73
	053874	Santa Catalina 1	94	0.21
	055584	Santa Catalina 2	83	0.19
	742974	6750 El Colegio Rd. (Santa Ynez 1)	21,712	49.91
	742984	6667 El Colegio Rd. (Santa Ynez 2)	0	0
	748784	El Dorado Apartments	2,446	5.62
	748794	West Winds Apartments	2,091	4.80
	570534	West Gate Apartments	1,385	3.18
	737434	West Campus Point Faculty Housing 1	3,687	8.47
	737414	West Campus Point Faculty Housing 2	15	0.03
	653564	Pardall Center	44	0.101
TOTAL			46,436	107

Potable Water Consumption Summary

Water Use Categories	CCF	AF
Permit 14	228,810	526
Permit 16	3,306	7.6
Bishop Ranch (UEC)	5,655	13
Other Potable Sources	46,545	107
TOTAL	284,316	654

Recycled Water

UCSB continues to utilize recycled water, which is produced by Goleta Sanitary District and provided to the campus by the Goleta Water District. In the Goleta Valley, this source of water is underutilized and unstressed, and UCSB remains a leader not only in the use of this water, but in pioneering this source as a means to augment potable water consumption in new applications. In FY 2015/16, UCSB consumed 184 AF of recycled water. The water usage categorized based on area of campus it is utilized.

Facilities Management

The water use category of 'Facilities Management' includes both academic and administrative operated and maintained buildings on the Main Campus. In addition, included in these numbers are the six residence halls on the Main Campus (San Miguel, Santa Rosa, Santa Cruz, San Nicholas, Anacapa, and San Rafael), Manzanita Villages, and San Clemente. This water use category also includes West Campus Child Care, the Devereux properties, and North Campus Open Space.

Housing & Residential Services

The water use category of 'Housing & Residential Services' includes residences that house students where Housing & Residential Services operates and maintains the buildings. These residences include the following: Storke Family Housing, Santa Ynez Family Housing, Santa Catalina, El Dorado, Westwinds, West Gate, and Sierra Madre. This water use category does not include residences or buildings associated with UCSB that are governed by a homeowner association (HOA).

Water Use Categories	CCF	AF
Facilities Management	97,979	227
Housing & Residential Services	1,211	3
TOTAL	99,190	230

FY 2015/16 WATER CONSERVATION PROJECTS

UCSB has continued its rich history of implementing and institutionalizing water conservation and efficiency projects and programs on-campus. With Goleta Water District currently declaring a Stage III Drought Emergency, UCSB has increased conservation and efficiency efforts and has fully complied with all water use restrictions, especially irrigation restrictions.

Landscape & Irrigation

- Continued to reduce irrigation with potable water by 50% and eliminated potable water irrigation on three lawnscapes
- Brought reclaimed water line under UCEN Road to the last part of Channel Island 5 buildings (Santa Rosa north/Creative Studies), and San Rafael lawn. Also expanded recycled water infrastructure to psychology building and HSSB for irrigation.
- Reduced turf areas to mulch where appropriate (apartments/halls) on going.

Industrial Applications

- Replaced three water-cooled vacuum pumps with oil-cooled vacuum pumps, estimated to save over 2,000 CCF per year.
- Selected Bio II cooling tower for pilot project of utilizing recycled water as make-up water for cooling towers
- Replaced over 50 single-pass cooling condensers in laboratories with the assistance of Goleta Water District's rebate program.

Residential & Dining

- Installed new low flow dish machine in Ortega dining commons. Hobart (Energy Recovery Flight Type) uses 58 gal/hr vs. 272 gal/hr (79% reduction).
- Held water savings contest between all halls. Saved over 10% in 4 week contest.
- Replaced aerators in 5 buildings dropping average faucet use over 70% (0.5 vs 2.2 gpm)

Academic Buildings

 Distributed and installed closed-loop cooling for 63 benchtop condensers in campus research laboratories, decreasing water usage 47,000 gal/year per unit, ~1.2% of campus annual potable water use.

Education & Outreach

• Continued education campaign to students and staff about drought and to help save water by taking shorter showers, turn off water when brushing teeth and for all residents and staff to report any leaks for signs of wasted water (irrigation overflow, timers off, etc).

FUTURE WATER CONSERVATION PROJECTS

The following water conservation projects are planned for Fiscal Year 2016/17

- Plumb San Joaquin with recycled water for toilets and potentially cooling tower
- Continue turf removal and replacement with mulch throughout campus
- Purchased process water cooler to close loop on water being used once and sent to drain Connected and functioning in winter 2016 and will save approx. 1 million gallon/year
- Installation of low flow aerators in older apartments in FY16/17 with new funding cycle
- Expand recycled water to Santa Ynez Apartments for landscaping
- Utilize recycled water in Bio II cooling tower as make-up water

FY 2016/17 PROJECTED WATER CONSUMPTION & LOCAL WATER SUPPLY PORTFOLIO

Goleta Water District anticipates that available potable water sources for FY 2016/17 will 13,760 AF, with the majority source the Goleta Groundwater Basin. Referencing the projected supply amount against UCSB's FY 15/16 potable water consumption, and taking into consideration the aforementioned upcoming conservation and efficiency efforts, it is projected that UCSB will continue to consume less than 5% of the total water projected to be distributed by Goleta Water District.