

# **Earth Day Report**

## **Facility Energy Consumption**

**April 29, 2014**

**Robbie Lyng**

**M.O.F.**

# Report Highlights & Stewardship Goals

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## Highlights:

- Update on AUSD facilities use of electricity, natural gas, and water consumption
- Plan and actions recommended to proceed toward AUSD's conservation goals

## Goals:

- Reduce consumption of energy by 5% annually
  - ✓ Total reduction 13.92% (since 2009)
- Reduce water consumption by 10% annually

# Energy Consumption Factors

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Variations that affected conservation:

- Enrollment (increased 1% annually since 2009)
- Weather conditions (record-low rainfall since 2012)
- Summer programs usage
- Addition of portables at school site
- Facility permit usage

# AUSD Environmental Stewardship Results Energy Use

Site	Year Ending 06/2013			Year Ending 06/2009			% Chg
	Electricity (kWh)	Natural Gas (Therms)	Total Energy (MBtu)	Electricity (kWh)	Natural Gas (Therms)	Total Energy (MBtu)	
Alameda Gym	159,617	* N/A	545	153,919	N/A	525	3.81%
Alameda High	1,015,178	78,456	11,309	1,114,200	112,822	15,084	-25.03%
Alameda Swim Center	102,815	44,027	4,754	93,307	46,187	4,937	-3.71%
Bay Farm Elementary	201,595	2,167	905	248,387	1,422	990	-8.59%
Chipman Middle	344,721	29,057	4,082	308,775	34,791	4,533	-9.95%
District Office (old)	63,348	-7,392	-523	71,497	5,858	830	-163.01%
District Office/2060 Challenger Dr	129,211	* N/A	441	* N/A	* N/A	* N/A	
Earhart Elementary	221,049	6,240	1,378	267,896	7,177	1,632	-15.56%
Edison Elementary	116,263	6,851	1,082	147,525	11,888	1,692	-36.05%
Encinal High	730,215	34,092	5,901	768,792	39,166	6,540	-9.77%
Encinal High Swim Center	130,660	29,501	3,396	137,471	32,843	3,753	-9.51%
Food Servs. Warehouse	60,751	* N/A	207	63,511	* N/A	217	-4.61%
Franklin Elementary	80,624	2,316	507	97,644	2,483	582	-12.89%
Haight Elementary	345,790	** 0	1,180	393,897	1,030	1,447	-18.45%
Historic AHS	462,026	* N/A	1,576	643,398	* N/A	2,195	-28.20%
Lincoln Middle	670,638	19,731	4,261	720,466	22,384	4,697	-9.28%
Lum Elementary	239,284	12,962	2,113	212,002	12,659	1,989	6.23%
Maintenance Yard	24,885	3,944	479	22,104	6,898	765	-37.39%
Maya Lin Elementary	187,140	8,067	1,445	172,168	11,141	1,702	-15.10%
Otis Elementary	160,573	4,597	1,008	148,491	3,931	900	12.00%
Paden Elementary	143,385	4,661	955	159,162	5,931	1,136	-15.93%
Ruby Bridges Elementary	450,727	4,672	2,005	480,428	6,560	2,295	-12.64%
Thompson Field	24,529	454	129	31,658	487	157	-17.83%
WCDC/500 Pacific Av	120,090	19,274	2,337	72,215	17,808	2,027	15.29%
Wood Middle	214,701	7,838	1,516	251,618	7,735	1,632	-7.11%
Woodstock Elem./1900 3rd St	211,865	13,060	2,029	161,794	11,053	1,657	22.45%
<b>Total Costs</b>	<b>\$926,265</b>	<b>\$263,962</b>	<b>\$1,190,227</b>	<b>\$863,038</b>	<b>\$471,697</b>	<b>\$1,334,735</b>	<b>-10.83%</b>
<b>AUSD Totals</b>	<b>6,611,680</b>	<b>324,575</b>	<b>55,017</b>	<b>6,942,325</b>	<b>402,254</b>	<b>63,914</b>	<b>-13.92%</b>

\* No Service at Site

\*\* Issue with Meter (in Process of Repair)

Source: SPURR Report –School Project for Utility Rate Reduction

# AUSD Environmental Stewardship Results Water Use

Site	Year Ending 06/2013			Year Ending 06/2009			% Chg
	Water (CCF)	Irrigation (CCF)	Sewer (CCF)	Water (CCF)	Irrigation (CCF)	Sewer (CCF)	
Alameda Gym	* N/A	* N/A	* N/A	* N/A	* N/A	* N/A	
Alameda High	7,023	0	4,084	6,211	0	3,778	11.19%
Alameda Swim Center	3,251	0	3,251	3,147	0	3,147	3.30%
Bay Farm Elementary	702	5,681	702	585	3,869	885	32.70%
Chipman Middle	1,126	** 0	1,126	717	** 0	716	57.15%
District Office (old)	<i>For Old DO see HAHS</i>						
District Office/2060 Challenger Dr	133	** 0	133	<i>No Data</i>			
Earhart Elementary	6,097	** 0	6,097	4,154	** 0	4,154	46.77%
Edison Elementary	1,753	** 0	1,753	1,807	** 0	1,807	-2.99%
Encinal High	3,029	5,912	3,019	2,957	5,100	2,957	8.59%
Encinal High Swim Center	2,805	** 0	2,805	2,700	** 0	2,700	3.89%
Food Servs. Warehouse	** 0	5	** 0	** 0	5	** 0	
Franklin Elementary	388	** 0	388	481	** 0	481	-19.33%
Haight Elementary	1,620	** 0	824	1,637	** 0	921	-4.46%
Historic AHS	128	** 0	125	727	** 0	727	-82.60%
Lincoln Middle	6,362	** 0	1,601	4,521	** 0	829	48.84%
Lum Elementary	3,167	** 0	3,158	2,281	** 0	2,269	39.01%
Maintenance Yard	50	** 0	50	68	** 0	68	-26.47%
Maya Lin Elementary	997	** 0	997	1,051	** 0	1,051	-5.14%
Otis Elementary	1,573	** 0	1,573	858	** 0	858	83.33%
Paden Elementary	466	** 0	465	334	** 0	334	39.37%
Ruby Bridges Elementary	1,703	2,924	1,702	1,036	1,733	962	69.63%
Thompson Field	3,801	** 0	3,801	4,483	** 0	4,483	-15.21%
WCDC/500 Pacific Av	1,508	** 0	1,508	983	** 0	983	53.41%
Wood Middle	7,732	** 0	7,732	7,018	** 0	7,018	10.17%
Woodstock Elem./1900 3rd St	1,742	** 0	1,742	1,024	** 0	1,024	70.12%
<b>Total Costs</b>	<b>\$242,474</b>	<b>\$51,395</b>	<b>\$43,688</b>	<b>\$184,497</b>	<b>\$10,707</b>	<b>\$42,154</b>	<b>42.21%</b>
<b>AUSD CCF Totals</b>	<b>120,314</b>			<b>101,639</b>			<b>18.37%</b>

CCF = 100 Cubic Feet

\*\* No Dedicated Account

Source: SPURR Report –School Project for Utility Rate Reduction

## Completed Repairs and Projects

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Completed works that will improve energy conservation:

- Sealed windows at Encinal High
- Replaced walk-in freezer at Clement Warehouse
- Installed new gas valves at Alameda High & Encinal High
- Installed new CFL lights at Woodstock campus
- Repaired boiler at Lum Elementary
- Repairs made at Emma Hood pool

## Goals for the Upcoming School Year

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School year 2014/2015 MOF/AMP and Go Green goals:

- Create school awareness program (behavioral changes)
- Upgrade inadequate gas valves throughout district
- Review district purchasing of energy–efficient equipment and supplies
- Explore integrating photovoltaic system
- Work with EBMUD on leak detection monitoring
- Proposition 39 & Facilities Master Plan