

UCSB waterless urinal CBA, provided by UCSB Sustainability						
Retrofitting existing urinals						
Costs:						
Waterless urinals and supplies (1)	\$387.00	\$87.00	(with rebates)			
Tile work per urinal (1)	\$236.00					
Plumbing per urinal (1)	\$382.56					
Total costs per urinal:	\$1,005.56	no rebates				
	\$705.56	with \$300 rebate from	County of Santa Barbara			
Savings:						
Sewer costs, \$, per gallon (2)	\$0.0012					
Water costs, \$, per gallon (2)	\$0.0049					
Consumption and Cost of:						
	Water use, gallons	sewer cost	water cost	total cost	total cost over 20 year lifetime	
Old urinal (~3gpf)/year	64,740.00	\$77.30	\$319.54	\$396.84	\$7,936.81	
EPAAct (~1 gpf)/year	21,580.00	\$25.77	\$106.51	\$132.28	\$2,645.60	
Water use gallons, waterless urinal	0	0	0	0	0	
Simple payback (costs/savings) in years (3)						
No rebate, replacing 3 gpf urinal	2.53		With rebate, replacing 3 gpf urinal	1.78		
No rebate, replacing 1 gpf urinal	7.60		With rebate, replacing 1 gpf urinal	5.33		
Net Present Value (4)						
No rebate, replacing 3 gpf urinal	\$3,559.46		With rebate, replacing 3 gpf urinal	\$3,842.48		
No rebate, replacing 1 gpf urinal	\$554.06		With rebate, replacing 1 gpf urinal	\$837.08		
Installation in New Construction						
Sewer costs, \$, per gallon (2)	\$0.0012					
Water costs, \$, per gallon (2)	\$0.0049					
	Water use, gallons	sewer cost	water cost	total		
EPAAct compliant consumption (1 gpf)/year	21,580.00	\$25.77	\$106.51	\$132.28		
Waterless urinal	0	0	0	0		
Waterless savings per year (5):	\$114.25					
Savings over 20 year lifespan:	\$2,285.00					
Environmental Benefits Summary						
	Per year vs old urinal	Lifetime vs old urinal	Per year vs EPAAct urinal	Lifetime vs EPAAct urinal		
Water Savings, gallons	64,740	1,294,800	21,580	431,600		
Electricity savings, kWh (6)	576	11,524	192	3,841		
Greenhouse gas emission savings, in lbs of CO₂ (7)	464	9,277	155	3,092		
Notes:						
1: Costs for retrofit derived from summer 2007 projects at North Hall and Campbell Hall						
2: Costs derived from FY 06-07 average Facilities Management recharged utilities rate						
3: This does not include the consideration that we are retrofitting a new urinal for an aging one. The simple payback does not include the value of the new urinal as building maintenance.						
4: NPV assumes 6% discount, 25 year project life, and that water and sewer price escalation = inflation						
5: This assumes approximately equal initial costs. This will depend of brand, available rebates, and installation, but waterless urinals are often the less expensive choice.						
6: Embodied energy of water for Southern California: 8.9 kWh/1000 gallons, from Flex Your Power.						
7: Greenhouse gas emission data for California: .805 lbs CO ₂ /kWh, from California Climate Action Registry						