"The People's (Water) Pedal*"

(The name is a work in progress.)*

A Simple, Low-Cost Pedal-Actuated Water-Saving Device for Residential Faucets
Designed and Priced to Promote Maximum Installation in Retrofits and New Construction

For Households: Reduce Faucet Water Use by up to 70% or more • Save $1000's on Water Bills
For Society: Conserve Billions of Gallons of Potable Water Annually
Save Billions in Future Water Infrastructure Capital and Operating Costs

Selected by the Metropolitan Water District of Southern California as a Finalist in its 2011 Innovative Conservation Program Competition

Water Facts / The Reason for the People's (Water) Pedal

- *Potable water may be a commodity, but resources are dwindling, due to an ever-increasing number of households, businesses, institutional, and agricultural users making new demands on water resources. For example, between 1997 and 2005, not only was there a substantial increase in the number of water connections serviced by the SFPUC, but also the average annual household faucet water use increased by 10% over the same period. A water-use double whammy!*
- *Applying very conservative assumptions to the latest U.S. Census Bureau data, there are approximately 4.2 million installed residential sinks on the S.F. Peninsula; over 46 million installed residential sinks in California; and over 372.1 million installed residential sinks in the U.S. This estimate does not include new sinks in future residential construction; nor does it include any of the many millions of installed non-residential sinks suitable for the People's (Water) Pedal.*
- *Average California faucet water use is approximately 33 gallons per day per household. Assuming 5% of SFPUC's 1,233,000 households installs the People's (Water) Pedal, and each such household achieves a reduction in faucet water consumption of only 40% (a conservative amount, based on field test results), the People's Pedal could reduce SFPUC water consumption by almost 814,000 gallons a day, or over 297,000,000 gallons per year!*
- *At approx. o.4¢/gal (excluding sewage charges), SFPUC residential rate payers would collectively save almost $1.2 million a year.*
- *Using more conservative assumptions for the entire U.S. (e.g., installation in 1% of the 105.48MM U.S. households and a 30% water savings) 3,811,523,450 gallons of precious potable water would be saved every year – more than enough to fill 142,000 18'x36' swimming pools!*

The Challenge: Design a User-Friendly Faucet-Water Conservation Device That All Household Members Will Always Use – and Will Actually Want to Use

In the home, "easy" indoor water savings have already been largely achieved by means of low-flow plumbing fixtures (e.g., toilets, showerheads, aerators) and low-consumption appliances (e.g., dishwashers, washing machines). The beauty of these devices is that once installed, they are essentially passive, and do not require users to alter any water-use habits. Thus, water is saved – whether intended or not! In contrast, virtually all future indoor residential water savings will require the users' active participation in the activity of saving water, which means that users will have to modify their sink habits and routines to increase the water use efficiency of all their sink activities.

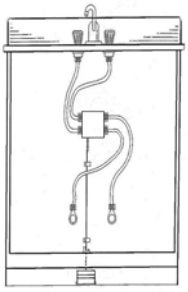
The only way to save substantial water quantities consistently over time is to increase water use efficiency in a manner that is not physically or psychologically burdensome on users, nor disruptive of their sink activities. Thus, instead of the physically and psychologically burdensome and disruptive act of constantly turning hot and cold faucets on and off every few seconds to prevent water flowing needlessly down the drain, the People's (Water) Pedal offers dramatically improved water use efficiency by permitting the average user, child or adult, to quickly and "painlessly" incorporate and sustain water-saving habits in his or her kitchen and bathroom sink activities.

The Solution: The People's (Water) Pedal

Two first-generation prototypes of the People's (Water) Pedal – field tested by children and adults for a total of more than 12 months – have unequivocally demonstrated that this water-saving device not only meets all mechanical, psychological, and aesthetic criteria, but also that the device can achieve very substantial water savings: At one test sink, the average water savings were estimated between 40% - 70%, depending on the sink activity. An added benefit: The People's Pedal provides a genuine "feel good" psychological experience for most individuals, assuring long-term acceptance and use.

Installed under the sink, the People's (Water) Pedal is physically and visually unobtrusive in any kitchen or bathroom, regardless of decor or color scheme, permitting the continued use of the existing faucet set – ***a major cost-saving benefit over every modern water-saving faucet*** and earlier water-saving devices that were not well accepted by family members. The design of the People's Pedal is simple, robust, and 100% mechanical (i.e., non-electric, non-electronic), and permits a person to install the device essentially with only a screwdriver and pliers. It will be over-engineered to provide decades of maintenance-free operation. Finally, to reduce residential water use on a societal level, the People's Pedal will be nationally code-compliant and WaterSense®-labeled, priced to maximize installations/ market penetration, and available through both traditional and highly innovative distribution channels.

This is How the Patent-Pending People's (Water) Pedal Works



The user steps on a pedal, simultaneously opening two valves on the hot and cold water lines. (Default valve position is closed.) With these valves open, the user then turns on the sink existing faucet(s) as usual, selecting water temperature and flow for the particular sink activity. Reducing pressure on the pedal or removing the foot closes the valves partially or fully; replacing foot resumes the exact flow and temperature the user had previously selected for that particular sink activity. ▶▶

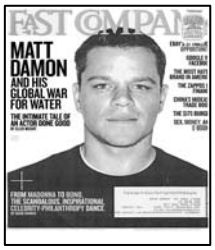
Using the People's Pedal is like driving a car: Users quickly learn to turn water on and off with their feet, even as their hands perform sink activities without distraction or interruption. As with driving, using the pedal becomes virtually automatic, without the users' conscious awareness that they are depressing and releasing the pedal to regulate water flow.

Using the People's Pedal is actually easier, as well as more efficient, than turning faucets on and off by hand every few seconds to reduce wasteful water use. Consequently, this device immediately appeals to all environmentally conscious individuals, including those who know they should turn off faucets when water is flowing needlessly, but find it simply too inconvenient and too disruptive to do so! Moreover, as water and sewage fees go up and up, the People's Pedal also appeals to households on a budget.

Go-To-Market Strategy

- Set the retail price for the basic device at the lowest psychological/psychographic price-point conveying quality and value, to facilitate acceptance and market penetration. Offer optional decorator-finish pedal enhancements (e.g., brushed brass, etc) at a premium price. (Initial target price-point: $50, +/-, based on preliminary cost estimates of $10 - $20/basic device.)

- Establish market acceptance and commercial viability, test viral marketing potential, through social networking and website sales. Adjust retail price (↑ or ↓) to optimize.
- Once viability and price is established, focus direct and wholesale efforts on water agencies. Identify agencies with track records of innovative and aggressive residential water reduction programs to credentialize the People's Pedal and serve as "early adopter" models for other agencies. Water agencies are highly motivated to reduce residential water consumption, often offering free water-saving fixtures and/or substantial rebates. ▶▶



- Also focus direct and wholesale efforts on eco- and community organizations: E.g., sell (possibly install) the People's Pedal for fund-raising – like Girl Scout Cookies.
- Distribute through other direct and wholesale channels: E.g., independent hardware/ home improvement stores, natural products stores, green websites, shopping channels.
- For doing good and for positive press, dedicate a percentage of profits to organizations promoting adequate and safe drinking water in the U.S. and abroad, such as Water.org, co-founded by Matt Damon. (See cover story, *Fast Company*, July/August, 2011.) ▶▶

Project Evangelist

Marc Warsowe; Pres and CEO, 456Corp; mwarsowe@nbcgroup.net; 650.364.6343; www.linkedin.com/in/marcwarsowe.

- *Warsowe co-founded, built, then sold Eco-DenT International, Inc., an innovative premium natural oral care manufacturing company, and is currently a Business Consultant in the natural products sector.*
- *After graduating from Stanford Law School, Warsowe chose the career path of a small-business entrepreneur, and has founded several successful, category-leading businesses in the U.S. and Germany.*
- *A committed environmentalist, Warsowe is the inventor of this patent-pending water-saving device.*

Senior Advisor

Gary Klein; Managing Partner, Affiliated International Management LLC.

- *Klein is well known in the field of water research. At the California Energy Commission, he designed and managed the CEC's hot water distribution research project. In addition, Klein was lead author on California's Water-Energy Relationship Report, and worked with several programs to establish criteria for efficient hot water distribution systems, including Build-it-Green, LEED for Homes, the International Green Construction Code and IAPMOs Green Technical Committee.*