



Cash for kitchens

The water-energy nexus in your favorite eateries

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About DNV GL



- Founded 1864
- Headquartered in Norway
- 10,000 employees

Strong position in:

- Tankers
- Offshore classification
- Power & transmission
- System certification



- Founded 1867
- Headquartered in Germany
- 6,000 employees

Strong position in:

- Container ships
- Ship fuel efficiency
- Marine warranty
- Renewable energy



- **Created 2013**
- **Headquartered in Norway**
- **16,000 employees**

Leading company in:

- **Classification**
- **Oil & gas**
- **Energy**
- **Business assurance**

Agenda

- Discuss overview of the program
- Go over program implementation
- What were the program goals
- Talk about barriers and successes



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West Basin Municipal Water District/Hastings & Co.



Public wholesale water agency

Member of Metropolitan Water District of Southern California

Provides imported drinking water to nearly 1 million people in 17 cities

Provides recycled water to municipal, commercial, and industrial customers

Women Business Enterprise (WBE)
Small Business Enterprise (SBE)

Project management and program implementation



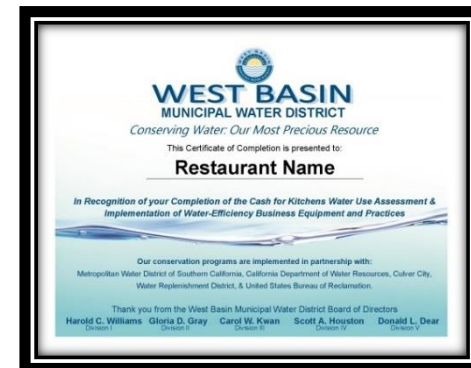
Cash for kitchens (C4K)

C4K began in 2008 to address the need for water efficiency in commercial kitchens and restaurants within West Basin's service area.

Since its inception, C4K has accomplished the following:

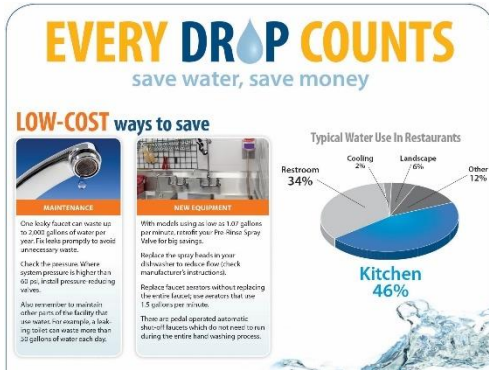
- ✓ Over **350** commercial kitchen / restaurant visits
- ✓ Over **70** institutional kitchen visits (schools, hotels, churches, military bases, community centers, etc...)
- ✓ Faucet aerators distributed → **900+**
- ✓ Flow restrictors distributed → **400+**
- ✓ Pre-rinse spray valves distributed → **200+**

The C4K process



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C4K program goals



Increase water awareness

- Kitchen surveys + follow-up report
- Poster & quiz
- Window clings
- Children's activity placemats
- Training sessions

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Provide low-flow devices

- Faucet aerators
- Flow restrictors
- Pre-rinse spray valves
- Commercial rebate information

Encourage behavioral changes

- Visual prompts in the kitchen
- Open dialogue with employees
- Certificate of completion
- Public recognition

Water efficiency: devices & rebates



Faucet aerators
(0.5 gpm and 1.5 gpm)



Flow restrictors
(0.5 gpm)



Pre-rinse spray valves
(1.1 gpm – 1.25 gpm)

Available rebates



Connectionless food
steamers



Air-cooled ice
machines

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Water efficiency: customized report



CASH FOR KITCHENS

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Education & behavior: poster

EVERY DROP COUNTS

save water, save money

LOW-COST ways to save



MAINTENANCE

One leaky faucet can waste up to 2,000 gallons of water per year. Fix leaks promptly to avoid unnecessary waste.

Check the pressure. Where system pressure is higher than 60 psi, install pressure-reducing valves.

Also remember to maintain other parts of the facility that use water. For example, a leaking toilet can waste more than 50 gallons of water each day.



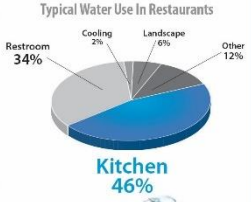
NEW EQUIPMENT

With models using as low as 1.07 gallons per minute, retrofit your Pre-Rinse Spray Valve for big savings.

Replace the spray heads in your dishwasher to reduce flow (check manufacturer's instructions).

Replace faucet aerators without replacing the entire faucet; use aerators that use 1.5 gallons per minute.

There are several approved automatic shut-off faucets which do not need to run during the entire hand washing process.



NO-COST operational tips to SAVE WATER & MONEY



CUSTOMER ENGAGEMENT

"Serve Water Only Upon Request"

Consider asking customers, "What would you like to drink?" rather than bringing water immediately to the table.

For every glass of antiseptic water in the glass wasted, but the water needed to wash the glass is also wasted.



FOOD PREPARATION

Do not use running water to melt ice in sinks.

Use refrigeration rather than running water to thaw foods. Designate a place in the refrigerator for overnight thawing of frozen foods.

Investigate the use of food-grade pan liners; the pan can then be used several times between washings on the same day.



EQUIPMENT MAINTENANCE

Adjust ice machines to dispense less ice if it is noticed that ice is being wasted.

Adjust the flow to dipper wells, if possible according to health department standards.

Wash only full loads in the dishwashers. Your water and heating expenses are the same for a full or half load. Running a full load will use your kitchen's resources most efficiently.

Turn dishwashers off when dishes are not being processed.



DISHWASHING & CLEANING

Before washing dishes, dry-scrub and pre-soak dishes and utensils in a basin of water rather than under running water. Run only fully loaded dish racks through the machine.

When possible, use dry surface cleaning methods, followed by damp mopping or wiping. Do not continue to do floor-type cleaning of floors; use a mop and a bucket.

Use brooms rather than water for sweeping outside parking lots or paved areas. When necessary to use water, use a waterroom or similar device to clean efficiently.



visit www.westbasin.org for more information and to download the Cash For Kitchens Training Manual **Cash for Kitchens**

CADA GOTA CUENTA

ahorrar agua, ahorrar dinero

Aquí están algunas maneras para ahorrar de BAJO COSTO



MAINTENIMIENTO

Una llave de agua que gotea puede gastar hasta 2,000 galones de agua por año. No espere en arreglar goteras para evitar el desperdicio innecesario de agua.

Revise la presión del agua. Cuando la presión del sistema sea superior a 60 psi, instale válvulas reductoras de presión.

Recuerde también ocuparse del mantenimiento de las otras partes de las instalaciones que utilicen agua. Por ejemplo, un inodoro con fugas puede gastar más de 50 galones de agua cada día.



NUEVO EQUIPO

Con modelos que solo usan entre 1.28 y 1.6 galones de agua por minuto, modernice los rociadores de cocina para grandes ahorros.

Reemplace las cabezas del rociador de su lavaplatos para reducir el flujo. (Revise las instrucciones del fabricante).

Reemplace los restrictores de agua de las llaves de agua sin reemplazar la llave de agua por completo. Use restrictores de agua que usen 1.5 galones por minuto.

Hay lavamanos operados con pedales que detienen el flujo del agua automáticamente cuando no se necesitan y no tienen que comer durante todo el proceso de lavarse las manos.



Aquí están algunos consejos operacionales para AHORRAR AGUA Y DINERO que NO CUESTAN NADA



COMPROMISO CON EL CLIENTE

"Sirva agua únicamente bajo solicitud"

Considere la posibilidad de preguntar a los clientes, "¿qué le gustaría tomar?" En lugar de traer agua de inmediato a la mesa.

Por cada vaso de agua sin tocar, no sólo el agua en el vaso se le que desperdicia sino que el vaso también se desperdicia.



PREPARACION DE ALIMENTOS

No deje correr el agua para derretir hielo o los refrigerados.

Use el refrigerador, en lugar de dejar correr el agua, para descongelar alimentos. Designe un lugar en el refrigerador durante la noche para la descongelación de alimentos.

Investiguel el uso de formas para sarmos que sean adecuados para usar con alimentos. Así el sarmos podrá ser usado varias veces durante el día antes de ser lavado.



MANUTENIMIENTO DE EQUIPO

Ajuste el flujo de la remojadora de platos, si es posible de acuerdo con los estándares del departamento de salud.

Lave sólo cargas completas en el lavaplatos. El gasto de agua y energía es el mismo si se lava una carga completa o media. Cuando se lava una carga completa los recursos de su cocina serán usados de manera más eficiente.

Apague el lavaplatos cuando no lo este usando.



LIMPIEZA

Antes de lavar los platos, raspe en seco y remoje los platos y utensilios en un recipiente de agua en vez de dejar el agua correr.

Cuando sea posible, utilice métodos de limpieza en seco y después limpie con toallas húmedas o un trapo para limpiar las superficies. No inunde el piso con agua para limpiarlo; use un trapero y una cubeta.

Utilice escobas en lugar de agua para barrer los estacionamientos o las zonas pavimentadas. Cuando sea necesario utilizar agua, use una escoba de agua o un aparato similar para limpiar de manera eficiente.

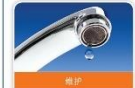


visite www.westbasin.org para más información y para bajar el Manual de Entrenamiento Dinero Para Cocinas **Cash for Kitchens**

珍惜每一滴水

怎样在餐馆节约用水

成本低廉的节水方式



维护

一个滴水的水龙头每年浪费的水量多达 2,000 加仑。尽快修理滴漏的水龙头，避免不必要的浪费。

检查水压。当系统水压高于 60 磅/平方英寸时，请安装减压阀。

此外，别忘了维护其他的用水设备。例如：一个漏水的马桶每天浪费的水量超过 50 加仑。



新设备

对于用水流量低至每分钟 1.07 加仑的设备，更换密封的预冲洗喷雾器，可以大大节约用水。

更换洗碗机的喷头，以降低水流量（查看生产商的建议）。

更换水龙头起泡器，将干点更换整个龙头；使用水流量每分钟 1.5 加仑的起泡器。

此外，还可使用脚踏式自动关闭水龙头，它在整个洗手过程中无需用水。



无成本运营方式小贴士 节约水资源和资金



上班参与节水

"只在顾客要求时才提供用水"

可以考虑向顾客询问：“您想喝点儿什么？”而不是直接给顾客倒水到餐桌上。

对于每一杯未到过的水，不仅杯中的水被浪费了，还浪费了用来清洗杯子的水。



食品制备

请勿用流水在水槽中融化冰块。

用冰箱解冻食品，而不是用流水解冻。在冰箱中专门腾出一块地方存放解冻后的冷冻食品。

了解食品专用除霜器的用途；这种装置可以在每天重复使用几次之后再清洗。



设备维护

如果注意到冰块浪费的现象，则缩短冰块时间，以减少制冰的数量。

根据卫生标准，调整注入水池的水量。

只在碟满时，才启动洗碗机。高效率和半满时启动的水费和提高效率。以满负荷的负荷运行。

清洗餐具时，请关闭水。



清洁、维护

洗碗之前，先用干布擦拭碗碟并晾干，并避免在水池中，而不是用流动水冲。只让洗碗机装满碟碗时才运行洗碗机。

尽量使用干布清洁，之后再使用湿布擦拭。不要再用冲洗水的方式来清洗地板；使用湿布擦地。

清洗户外的停车场和卫生区域时，使用扫帚而不是用水。必需用水时，可使用高压式水枪或类似设备，实现高效的清洁效果。



敬请访问 www.westbasin.org，了解更多信息，并下载《厨房省钱妙招手册》 **Cash for Kitchens**

English

Spanish

Mandarin

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Program enhancement: the water-energy nexus



Joint audits with energy utilities

- Single, streamlined visit for busy restaurants
- Helps to emphasize the link between water & energy use in kitchens
- SoCalGas technician discovered a broken thermostat during a joint visit



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Barriers to participation

Convincing managers/owners that it was a legitimate program

- ⑩ Contacting the right person (took numerous calls)
- ⑩ Calling during slow time and scheduling the audit during slow times
- ⑩ Confirming devices were installed



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SAFER, SMARTER, GREENER

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