

CASE STUDY

Dynasty Chinese Cuisine

About the restaurant

The Dynasty Chinese Cuisine Restaurant is a medium sized restaurant serving mostly Chinese food to 3,000 customers per week. The restaurant is located inside the Canterbury Bulldogs Club in Belmore. It opens 7 days a week for lunch and dinner. Fifty staff are employed at the restaurant including 7 chefs and 8 kitchen staff. The restaurant kitchen has 4 two-burner stoves. The restaurant has two sister restaurants in Penrith and Bondi Junction – the Ming Asian



Cuisine and the Noble Court Chinese Cuisine. The restaurant is managed by Mr Johnny Lim and was awarded the 2007 Australian Achiever Awards for Excellence in Customer Service.



Mr Lim obtained a quote from one of the authorised waterless wok stove suppliers and decided to go ahead with the installation of new stoves. He signed an agreement with the ECC, receiving a \$2000 subsidy for each traditional wok stove replaced by a waterless wok stove.

Two weeks before woks were replaced, water meters and data loggers were installed to measure the water usage of the traditional stoves. To measure the change in water use, the water meter remained in the same position for one week after installing the new waterless wok stoves. The restaurant was open as usual during this data collection period and while stoves were replaced. Data from the water meters showed that the restaurant used an average of 15,000 litres per day with the traditional stove and only 2,000 litres per day with the new waterless wok stoves. An average of 13,000 litres per day was saved.

What are the environmental gains?

- 💧 86.5 % reduction in water used by stoves
- 💧 4,700,000 litres of water will be saved per year
- 💧 Staff's awareness of water saving has greatly increased
- 💧 Staff have adopted new water saving practices

What did they do?

Since the restaurant opened in 2002, Mr Lim has been concerned about the large amounts of water used by the wok stoves. When business partner, Mr Eric Chu read about the launch of the 'Saving Water in Asian Restaurants Project' he knew this would be relevant to their business. Mr Lim contacted the Ethnic Communities' Council of NSW (ECC) for more information about the waterless wok stove. A bilingual environmental educator visited Mr Lim at the restaurant, discussed options for water conservation and provided him with an information package about the waterless wok stoves.

Why did they do it?

Mr Lim had migrated from Singapore and ran Japanese cuisine in his homeland and Australia. Changing to a restaurant that served primarily Chinese food, Mr Lim was surprised by the restaurant's large water bill. He found that taps for stoves and stove cooling water were running continuously, for at least 8 hours a day. He encouraged the chefs to turn off the taps during cooking, but they argued that it was difficult to be continuously stretching their arms to reach taps and that the top of the rings were too hot for their arms to cross over when cooking. They reasoned that the traditional way of Chinese cooking stoves was not designed to conserve water.



Mr Lim believed that it was the restaurant management's role to educate staff to accept the new water saving systems and technologies. In Chinese restaurants, chefs are accustomed to cooking in a particular way and it is sometimes difficult for them to change. Mr Lim tried to respond to the chefs' different needs to make it as easy as possible for them to use the new technology.

To increase the efficiency of the stoves, Mr Lim ordered the stronger duck burners for the new waterless wok stoves. The chefs were happier because the heat and flame were much better than their older ring burners. However, because of the strong heat the chefs were getting too hot standing in front of the stoves for hours at a time. Mr Lim ordered a specially designed stainless steel bar to put in front of the stoves to reduce the direct stove heat. Chefs are much happier with the stoves and are more willing to save water. Restaurant staff also found other ways to save water in the kitchen, for example rather than cooling food with running water, they use ice.



Mr Lim is very satisfied that the waterless wok stoves are a solution for limited water resources. Since testing the technology in the Dynasty Chinese Cuisine restaurant, management has decided to use waterless wok stoves in their sister restaurants in Penrith and Bondi Junction. They ordered the same stoves even though they were not eligible for the project subsidy. (The project subsidy is only available to existing restaurants to replace traditional stoves with waterless wok stoves). Mr Lim believes it is essential for businesses to take responsibility for their water use, "as a businessman running a restaurant, I think we are fools if we don't use waterless wok stoves to reduce our cost and save our water resource."

What were the costs and saving?

The restaurant spent \$14,000 to install waterless wok stoves and dispose of the old stoves to a metal recycler. After installing the new stoves, the restaurant saves \$11,000 per annum. The restaurant will pay off all of the cost for replacing the wok stoves in less than 2 years.

This is one of a series of case studies featuring businesses that participated in the Ethnic Communities' Council of NSW 'Saving Water in Asian Restaurants Project' which was funded by the NSW Government's Climate Change Fund. By taking part in this project, Asian restaurants receive education to enhance water conservation in their businesses and a subsidy to replace conventional wok stoves with more sustainable technology, the new waterless wok stove. In Stage 1 of the project, 23 participating restaurants saved 66,000,000 litres of water per annum.

More information

Helen Scott, Project Coordinator
Ethnic Communities' Council of NSW
Ph: 93 19 0288
Email: wok@eccnsw.org.au

Supported by the NSW Government's Climate Change Fund

