

CASE STUDY

Jade Lotus Chinese Restaurant

About the restaurant

Jade Lotus Chinese Restaurant is a suburban medium sized restaurant, serving Chinese and Malaysian style food to several hundred customers a week. Located in Sylvania Heights (south Sydney), it opens for lunch and dinner 7 days a week. The restaurant kitchen has 3 two-burner wok stoves. The restaurant is owned and managed by Mr William Lai.



What did they do?

Regular expensive water bills meant that Mr Lai was very aware of the water used in his restaurant.

With the government and the Ethnic Communities' Council of NSW (ECC) offering a subsidy to encourage restaurants to save water, he decided to explore the opportunity to replace the 2 old stoves, install an additional 1 burner waterless wok stove and be a more sustainable business.

Mr Lai contacted the ECC and was visited by one of the bilingual environmental educators. The educator provided an information package including brochures, a list of qualified waterless wok stoves suppliers and a DVD demonstrating the operation of the waterless wok stove.

He obtained a quotation from one of the approved suppliers and was surprised by the price – the waterless wok stoves are more expensive than traditional wok stoves. To dispose of the two old stoves to a metal recycler and install 2 new waterless wok stoves, he would need to spend \$11,300. This is a big investment for a small suburban restaurant. Mr Lai continued his discussions with the bilingual educator. He learnt that according to the research, almost 5,000 litres a day could be saved from a waterless wok stove. He also learnt that the business would earn back the investment on the new stoves within two years from money saved on water bills. Mr Lai wanted to make a wise investment and he really wanted to encourage his staff to change their old habits and save water, so he decided to go ahead.



A bilingual educator visited the restaurant for a second time and Mr Lai signed an agreement with the ECC, receiving \$2000 for each traditional stove that was replaced by a waterless wok stove. The subsidy was paid on receipt of evidence that the old stoves went to a metal recycler.

To calculate the change in water use, a water meter measured the water usage for one week before and after installing the new waterless wok stoves. The restaurant was open as usual during this data collection period and stoves were replaced overnight. Data from the water meters showed that the restaurant used an average of 985 litres per day with the traditional stove and only 214 litres per day with the new waterless wok stoves. An average of 771 litres per day was saved.

What are the environmental gains?

- 💧 78% reduction in water used by stoves
- 💧 278,000 litres of water will be saved per year
- 💧 Staff's awareness of water saving has greatly increased
- 💧 Staff have adopted new water saving practices

Why did they do it?

When Mr Lai started to get involved in this project, his restaurant stoves were already 19 years old. For suburban restaurants it is common to have stoves that are 20-30 years old, so his stoves could have lasted a few more years. When he read about the ECC project in a newspaper article, he started thinking about how the new stove would be a good way to reduce the amount of running water used on the stove top. He also thought it would be a good incentive to encourage kitchen staff to conserve water. Mr Lai felt that he was always reminding staff to turn off taps and save water in the kitchen. Mr Lai said, "Now with the water shortage, it is time for everyone to make a change. The waterless wok stove is a great message to the kitchen staff on saving water in the kitchen." Mr Lai is also using bilingual water saving stickers produced as part of the project to remind kitchen staff to save water.

The chefs had no trouble accepting the new stoves and were satisfied with the new technology. From the first day, the chefs reported that the waterless wok stoves were easy to operate. Compared to the old ring burners, the new duck burners created better heat and flame. Mr Lai reports "I have recommended to friends to take up this incentive to save water and upgrade their stoves ... I hope there will be more projects like this to help restaurants to become more sustainable."



What were the costs and saving?

With the traditional wok stoves, the restaurant's average quarterly water bill was \$1500. After installing the waterless wok stoves, their average quarterly water bill reduced to \$1100. The restaurant is saving approximately \$1600 per annum.

The restaurant spent \$11,300 to replace their stoves. They received a \$4000 project subsidy. The restaurant will pay off all of the cost for replacing the wok stoves in just over 4 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: 9319 0288
Email: wok@eccnsw.org.au

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