SOLVING WATER ISSUES WHILE SAVING MONEY IN THE RESTAURANT INDUSTRY

Lord Fletcher's, a Twin Cities iconic restaurant, located along with beautiful shores of Lake Minnetonka, was established in 1968. Specializing in traditional dining and evening entertainment, it has been a favorite spot for both young and old. In the summer months the bars and patio are lined with guests enjoying the pleasant atmosphere and spectacular lakes views. Yet like many restaurants in the western Twin Cities, water quality has been an ongoing issue. With incoming hardness levels averaging twenty two grains and total dissolved solids (TDS), levels at six hundred parts per million, they had been fighting the battle with their water since the day the opened. Due to their overall size and popularity they had invested heavily in the necessary appliances in order to maintain operations. These appliances included:

- 2 Water heaters
- 3 Ice Machines
- 6 Soda Stations
- 2 Dishwashers
- 2 Coffee/Tea/Espresso Stations

Over the years they had implemented a multitude of potential solutions to improve their water quality, including water softening, sediment and carbon filtration coupled with sequestering filtration. While these remedies alleviated the hardness, as long as the water softeners were working, and helped reduce the damage to their water using appliances, the costs to maintain these systems had become prohibitive. Their previous combination of water treatment equipment included two seven cubic foot water softeners to soften the hot water and twenty six individual filters to protect the ice machines and beverage stations. They had been replacing each of these filters every year at an average cost of $60 per filter. These filters were rated to for three months on average, meaning that 75% of the time these water using appliances were not properly protected. Also the resulting TDS from the water softeners through the hot water lines was averaging over seven hundred parts per million, causing excessive salt build-up in their water heaters and dishwashers. Another issue they faced was spotty dishes – particularly noticeable on their wine glasses. They spent an average of two hours per day just wiping down glassware.

After an extensive survey of the location by Premier Water of Minnesota, it was determined that their best solution would be to replace their existing water softeners and filtration with new softeners that were more efficient and required less maintenance and to add one central reverse osmosis system to handle both the softened hot water but also the cold water feeding all of their water using appliances. Due to the size and expanse of the location, running the individual lines to each appliance took two days, but once all the lines were run the actual new equipment installation took only one additional day. The resulting equipment consisted of:

- Two high efficiency seven cubic foot water softeners
- One twenty eight hundred gallon per day RO system
- Two three hundred gallons storage tanks
- Ozone treatment to maintain the sanitization of the storage tanks

Along with replacing the water softeners, every one of the filters was removed. The TDS dropped from six hundred parts per million down to seventy parts per million. Within twenty four hours of installation these new pieces of equipment the restaurant and its employees began to notice significant improvements. These improvements included:

- Crystal clear ice cubes
- Lighter, crisper tasting tea
- Nearly spotless glassware, including the wine glasses
- Sweeter tasting sodas
- Better overall results from the dishwasher

Along with the dramatic aesthetic improvements, the restaurant began to notice a substantial cost savings. They had their chemical company come out and adjust their chemical usage for their dishwashers. They also had their syrup supplier adjust their beverage ratios so that less syrup was used per beverage – as previously more syrup had been used to overcome the high TDS levels. Overall, their actual savings came out to over $8,100/year. This included:

1. Eliminating twenty six filters = $1,560.00
2. Water heater energy savings = $1,440.00
3. Reducing Syrup usage = $1,200.00
4. Reducing Dishwasher Rinse aid = $2,400.00
5. Cleaning Chemical Reduction = $ 600.00
6. Reducing Service calls for filters = $ 900.00

And these savings do not account for the reduction in labor as a result of no longer having to wipe down the glassware. The net monthly cost to Lord Fletchers for this equipment ended up being equivalent to what they previously were paying for the rental and upkeep of their previous water softeners. According to Peter Peryl, one of the owner operators of Fletcher's, "Since we put in this new system we haven't had to do any maintenance on water using equipment. Before we were constantly having service people out working on our ice cube makers, steamer, beverage stations, and water softeners." So the resulting equipment was able to save the restaurant over $8,100 per year as well as providing the highest quality water in the area with bottled quality water without the bottles, clear ice, sharper cleaner tasting beverages and spotless glassware and utensils – a true win for all involved.

If one was to visit this historic establishment today for dinner they would be greeted with a smiling host and seated at a table overlooking Lake Minnetonka. Their trained and professional staff would ask you if you would like a drink before ordering and they would also offer you water. If you were inquire as to the quality of the water they would proudly proclaim that Lord Fletcher's uses RO purified water and they would gladly pour you a glass of crisp, purified water over crystal clear ice cubes.