

Water Use Efficiency For Cooling Towers



Before installation



After trial



160 ton cooling tower



Cooling Tower Case Study: Loyola Law School Water Savings



System:	60 ton cooling tower (fluid cooler)
Trial:	3 Months, Oct-Dec 2014
Water Savings:	740,520 gallons in three months
Flow-Tech ROI:	8.1 months

Loyola Law School was using chemicals, but they were unhappy with the poor water use efficiency of their 60 ton cooling tower. Flow-Tech was installed in early October of 2014 on a trial basis tasked with saving water and protecting the energy efficiency of the tower due to a history of accumulated scale.

Previous years' water bills were supplied to compare water use from year to year. During the three month trial, 740,529 gallons of water were saved over what had been achieved in the previous year with chemical treatment.

Inspection of the coils showed not only that scale accumulation had ceased, but that the majority of the scale had been removed. The scale removal restored heat transfer efficiency while reducing energy consumption.



After the success of the first installation, the university purchased another Flow-Tech unit for a 160 ton cooling tower on an adjacent building. Due to the substantial water savings, LADWP paid the university approximately 50% of the cost of the hardware and installation for the Flow-Tech unit and a centrifugal separator filtration system. The return on investment for the second system with filtration was just over two years before the rebate.

Water Meter Data and Water Savings Calculation

Date	G. Used	Date	G. Used	Gallons Saved
Oct '13	740,520	Oct '14	306,680	433,840
Nov '13	553,520	Nov '14	516,120	37,400
Dec '13	575,960	Dec '14	306,680	269,280
			Total Saved	740,520

Flow-Tech saved 53% of the water used in the system by reducing blow-down by 80% - while operating the tower in specification.