

Case study: Beachside RV park

Award winning RV park not charged for all sewage treatment

This award winning RV park is right on the beach, with so many activities for the kids that even the parents can have a good vacation.

There were four meters billed to the site. The total billed usage was 7,978 gal/day, which was below our calculation of 20,447 gal/day.

A complex RV park means a complex site investigation. We proved one meter fed into a central tank, from which water was pumped around the majority of the park. This tank was also fed by two borehole supplies.

Boreholes are very attractive to customers with high usage, because the water is a lot cheaper than mains water. The customer bought this park in 2000 and straight away sunk the boreholes that April.

On an average day 13,578 gallons is withdrawn through these two boreholes, the majority of which returns to the mains sewers. Whether the water originally came from the mains or a customer's own supply, there is a cost to treating sewage.

Over the eight years prior to our investigation, more than 40 million gallons of sewage was treated by the water company, at the expense of all the other consumers in the area.



Figure 1: The customer saves \$50,000 per year by using a borehole supply instead of mains water

Couldn't you find this issue using benchmarking?

The graph below shows simple benchmarking wouldn't suggest an issue at this RV park. There are too many variables that affect water consumption. You need a more sophisticated approach, like Teccura's Complex Consumption Analysis (CCA), to pick up these kinds of issues.

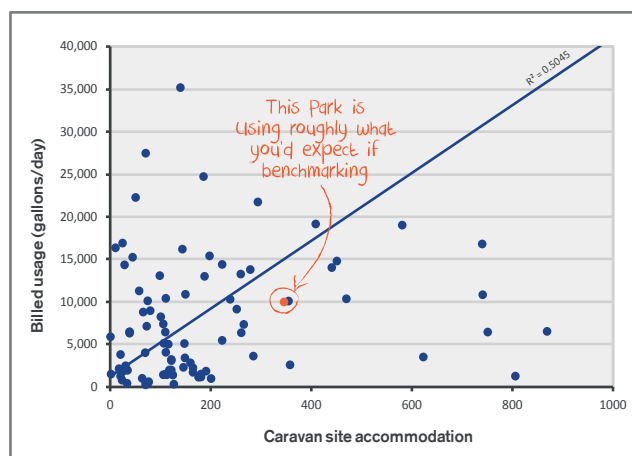


Figure 2: Benchmarks are simply not accurate at such complex sites. Without CCA, this partial billing would have gone unnoticed

Case Facts

Issue type:	Unbilled borehole supply
Teccura calculation:	20,447 gallons/day
Billed usage:	7,978 gallons/day
After issue resolved:	21,556 gallons/day
Unbilled usage:	13,578 gallons/day
Unbilled value:	\$105,485 p.a.
Duration of issue:	8 years

Isn't there a borehole list the water company could check through?

State governments do license ground and surface water withdrawals. It's possible to get a list and check whether the withdrawal permits are set up for sewage charges. In this sewage company's area there are 4,459 permits.

The vast majority of withdrawals will not return any water to the sewer, because they will be used for irrigation. Some boreholes will no longer be used because the water is too brackish; others will have been used in old factories now closed down.

You could target permits that are more likely to return to sewer with key word searches. A search of "RV" returns 14 withdrawals from the borehole list; "vacation" returns 63 – including this park. Most of these will be set up for sewage charges. Some, like this one, may not be.

It's also worth remembering that comparing

the list to billed accounts is not easy. There isn't a common numbering system to compare against, just a rough address.

How often do you go through and re-check the whole list? A disused well at a former foundry may now supply a new apartment block after re-development. Every year there are hundreds of new withdrawal applications.

Perhaps you could do it every year? Or every two years? The fact this borehole had slipped through the net, without being charged for eight years, proves that data analysis projects will not pick up everything.