



Case Study: **Riverstone Community Irrigation**

Location:

Naples, West Florida

Client:

Riverstone HOA

Market:

Residential Community



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The Background

Riverstone is a luxury residential community in Naples, West Florida. It's home to 802 single-family properties and approximately 300 acres of landscaped preserve and ornamental green space – including a beautiful 'grand entrance' that boasts a striking water feature, large flower beds, palm trees, and native species of Florida oak.

From 2008 to 2020, Riverstone was also home to an underperforming irrigation system that broke down on a semi-regular basis; costing the HOA a lot of money, forcing the landscaping committee to field near-constant complaints from upset residents and severely inhibiting efforts to maintain the aesthetic appeal of the community's green spaces.

A Familiar Story

Many Florida HOAs struggle with inadequate irrigation systems that they inherited from the developer turnover process – and can't get to run properly despite years of remedial work.

While it can be tempting to blame the developers responsible for installing these systems, it's not always right or fair to do so. In many cases, property developers simply do not have the knowledge or experience needed to spot a bad irrigation pump station design.

Instead, they rely on a third-party irrigation company and/or consultant to specify and purchase

an adequate irrigation system that'll "do the job". Instead of engaging a specialist to design a system that's optimized for their water movement needs and their water source.

Unfortunately, when these third-party suppliers act out of self interest, try to cut corners, rely on an outdated approach to irrigation design, or make a simple error of judgement, the results can be catastrophic. In the words of one of the HOA board members, "It's no fun if, post-turnover you end up being responsible for the day-to-day running of these underbaked and inadequate irrigation pump stations."



Stuck In a Perpetual “Break/Fix” Cycle

At Riverstone, the property developers listened to the wrong people and installed a pair of pump stations that were not fit for purpose. Laden with inherent design deficiencies and hamstrung by poor installation considerations, the stage was being set for a challenging future.

When the Riverstone HOA took control of the community at turnover, they inherited a broken system that was already stuck in that all-too familiar “break/fix” cycle.

Despite our best attempts to offer advice that moved them back onto the right track, they then chose to listen to advice that exacerbated the problem – and mired them in a situation that snowballed out of control.

In the end, there are major consequences to not being able to bring adequate water to a landscape. In an ongoing attempt to keep their landscape alive they ended up spending hundreds of thousands of dollars on repair work - just to keep their under-performing irrigation system running.



There’s no comparison between our new Hoover pump station and the systems we tried before.

-Franco
Riverstone HOA



The Challenge

Working with a sub-optimal irrigation system is bad for the health of your landscape. It's also bad for the health and wellbeing of the HOA committee members who will, ultimately, end up trying to fix perennial problems - and wasting a ton of money while doing so.

For Riverstone, trying to work with their ill-designed irrigation pump stations proved to be all-but impossible in the long-term. In addition to spending vast sums of money on remedial work, they were spending thousands of dollars on water quality mitigation which later, once the plan was implemented, proved to be no longer necessary.

Ultimately, the pump stations cost the HOA a lot of money - resulting in a lot of damage to the development's landscaped green spaces. Prior to our being involved with the development, the landscaping committee was dealing with approximately 50 - 100 irrigation-related complaints every week.

Without completely replacing their pump stations, this situation was only going to get worse, and the Riverstone HOA knew that they were heading down a road that would necessitate tremendous investment.

But replacing the irrigation pump stations also proved challenging. The HOA needed to work out what was going wrong, and who they could trust to design a functional replacement.



It's Hard To Know Who To Trust

Making these decisions can be incredibly difficult. Everyone claims to know what's going wrong, but the overwhelming majority of pump station manufacturers and irrigation consultants are either misguided or unscrupulous in their approach; promising the earth and then failing to deliver a suitable solution.

We'd been part of (and privy to) the continuous back and forth between vendors and the board on this project since 2016 and had resolutely offered up the Hoover solution that would solve most of Riverstone's problems. Unfortunately, some members of the HOA board were also taking advice from third parties that were leading them down the wrong path.

As a result, their first attempt at commissioning a replacement backfired. Again, in the words of a board member, "they installed another half-baked pump station that was nearly as bad as the equipment it was replacing, and it burnt out multiple times in the first year."

In the end, this botched replacement work cost the HOA in excess of a staggering \$6-figure sum - and opened the door to even more headaches.

A Considered Approach

We were brought back to the table, where we again made it clear that the only way to resolve the situation was to take a considered approach and deliver a substantial overhaul of the existing system.

Even with the ear of the board however, it still took time to persuade everyone that our remedy was the only way to break the perpetual 'break and fix' cycle that was draining the HOA's landscaping budget - and causing everyone so much stress. So much so, that the cost of the filtration system we knew they needed became another reason to put off a final decision; we were asked if a different filtration solution would work as well. We knew it wouldn't but the decision was taken to install the alternative on both stations - only to be ripped out and thrown away. We didn't waiver however. We knew our solution was the right solution and finally plans were set in motion.





The Decision-making Can be Unnecessarily Tortuous

Now, we think it's important to note that this situation isn't unusual: We know that it's tough to make decisions about something as expensive, important and complex as a community irrigation system. There's a definite learning curve to these things.

We also know that a lot of the people forced to make these decisions are beset - on all sides - by contradictory opinions and all manner of well-meaning (but misplaced) advice from third party contractors who are prone to suggesting endless 'fixes' that simply prolong the agony.

Inaction Can be Costly

But inaction can be incredibly costly too. In the Riverstone HOA's case, every day that they spent saddled with their old pump stations cost them money and the community's goodwill, which is why we held our ground, and continued to advise the HOA board to let us install an improved system that was capable of properly irrigating their development.



The Plan

A Substantial Upgrade

From our initial involvement in 2016, we were seen as simply another vendor giving advice to the board. But we were certain from day one, that Riverstone needed a substantial upgrade if its irrigation was to start delivering water efficiently and reliably. The two pump stations they'd been saddled with were sub-optimal at best, and maintaining them was always going to be impossible.

As mentioned above, both stations relied on a design that was never suited to the target environment. Having been consulting on the project for some time, our recommended solution was to replace both stations with a single - but much more sensible - pump station. One that could provide the pressure and flowrate needed to properly irrigate the entire community reliably and consistently - without failure.

To deliver the dependable irrigation system Riverstone needed, we'd also need to take care of peripheral details that were sabotaging the efficiency of their system - including things like the placement of their intake filters, and the absence of a good disc filtration system, which was pushing the HOA to explore costly (and unnecessary) chemical injection systems to stay on top of contamination problems.

From Chaos to Certainty and Reliability

This would be a substantial set of upgrades that would also necessitate upgrades to the irrigation power supply and other ancillary infrastructure, but we knew it was the only way to provide the HOA board with the reliable and efficient irrigation system the community needed to flourish.

Crucially, as with all our new pump station design and installation projects, the system has Hoover Flowguard installed. Flowguard is a critical piece for irrigation management and reliability. With it, we can monitor the functionality of the new pump station remotely and offer hands-on support to the Riverstone HOA for years to come.





Putting the Plan into Action

A Large and Complex Project Fully Managed and Executed

Manufacturing and installing the new pump station was relatively straightforward. That's not to say it was easy work – this was a large and complex project with a lot of moving parts. But we've been delivering seamless pump station installation services for over four decades now, and we have the experience needed to manage the operation properly.

This installation project included:

- Overseeing the landscaping needed to make space for our new pump station
- Hiring and managing the electricians for the electric upgrade
- Hiring and managing the installation team for the 10ft x 35ft concrete pad
- Removing and disposing of the two old pump stations
- Bringing in and setting up the new irrigation pump station complete with Flowguard
- Setting up new filters and new intake lines.
- Stress-testing the new system

100% Visibility and Control of the New Pump Station

Hoover Flowguard is a critical component for irrigation reliability and management. This Hoover patented pump station monitoring software was key to avoiding the problems that had plagued Riverstone in the past.

After spending several years wrestling with sub-standard irrigation systems, the HOA and landscaping committee were (understandably) keen to ensure that their new pump station ran smoothly and performed well throughout the year.

We ensured the Riverstone team received Flowguard training and support to use the software - and supplemented this with ongoing remote daily monitoring and oversight of pump station activity using Flowguard.





Flowguard Provides Critical Operational Data to Run Irrigation Efficiently

It lets you, your irrigation contractor or the company charged with maintaining your pump station keep a handle on things like flow rates and operating pressures – ensuring that things are running smoothly and providing early warning signs that let you fix preventable problems before they bring your pump station to a grinding halt.

Simply put, Flowguard data is essential for managing the field influence on the system, from the demand schedule, cycling, leaks and so on to environmental factors like sediment in the lake and choking of the intake screen.

If you can't measure the impact of the environment on your system, it's vulnerable. An alarm doesn't just alert you, for example, to a high voltage event - it helps you understand what environmental factor caused it.

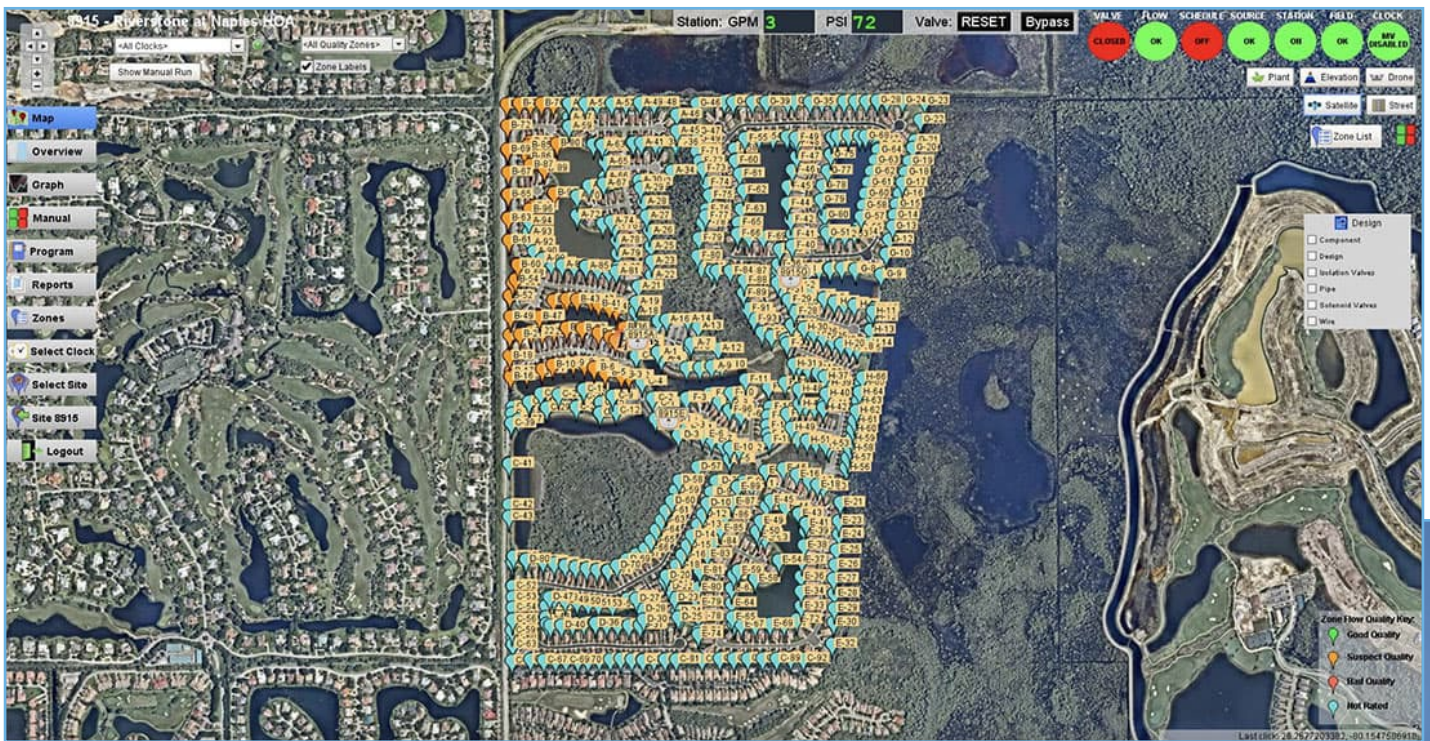
For all users, Flowguard provides the data that can help diagnose and fix problems promptly. We're actively working as the Riverstone community's irrigation support team, a service that we offer to all our clients. In this role, we provide the full maintenance and support package they need, using the operational data provided by Flowguard to keep a watchful eye on their pump station performance.

There is, after all, no such thing as a system that never breaks. But with the objective of “zero failure” Flowguard's ability to constantly report on performance allows us to act quickly before operations are affected - and ensure downtime is minimized, and landscaping is always protected.





Riverstone is home to approximately 802 single-family homes and 300 acres of manicured greenspace. It's an extensive development and its irrigation network is similarly complex.





The Results

A Very Positive Future

The Riverstone HOA now has a fully-functional irrigation system that's optimized the specifics of the development's landscape – and the local climate. Riverstone's residents also enjoy hundreds of acres of healthy and well-maintained greenspace that acts as a valuable asset for the community.

Repair bills have dropped significantly too, and resident complaints are down 90% since our new pump station was installed. (From 50-100 complaints per week, to approx. 5 per week at last count).



In a community with a lot of landscaping, you need reliability. If you lose landscaping - several hundred acres of plants and trees, that'll cost millions of dollars. Fortunately all the claims Hoover make about the quality of their pumps are true.

-Franco
Riverstone HOA

That's a significant improvement for both the landscaping committee and HOA as a whole – reducing the stress on everyone involved, and giving back hours of time that can be spent on improving the community in other ways

We continue to support the Riverstone HOA by providing ongoing management and maintenance services, monitoring their pump station via our Hoover Flow-guard technology and providing sage advice on optimising the performance of the Riverstone irrigation system.

We look forward to continuing our close working relationship, and would encourage anyone struggling with a similar problem to get in touch. Irrespective of whether your irrigation system is prone to constant failure, or just struggling to keep up with the demands created by your landscape, we're here to help..



90% Less
Resident complaints to
landscaping committee



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