

# GOLF

CASE STUDY | TESTIMONIALS



"GreenSight has given us validation! Especially when it comes to justifying the course needs to our membership"

**BRYCE YATES** 

GreensightAG.com



## Our Mission

The golf industry has an increasing number of challenges threatening its sustainability. Whether it be drought, labor shortages, increased conditioning standards, diminishing budgets, or superintendent burnout, Greensight developed its daily automated drone service to help superintendents overcome these daily challenges.

GreenSight gives superintendents the ability to become more proactive in their agronomic approach. We help save thousands of dollars in irrigation water and chemical usage. Ultimately, our daily automated drone service gives the peace of mind to comfortably step away from the golf course, even in the middle of the season.

In a fast paced golf course management environment, time is of the essence and superintendents are constantly pulled in different directions. Our daily automated drone service gives golf course superintendents the ability to monitor irrigation needs, identify plant health issues, and direct their workforce faster, easier, and more accurately than ever before.

One twenty-minute, daily drone flight with GreenSight provides superintendents the data necessary to stay ahead of traffic stress, hand water more efficiently, increase member satisfaction, and give invaluable peace of mind. When investing in Greensight technology, our average customer sees a return on their investment in under three months!





### Autonomo Drones

GreenSight is defining the usage of drone analytics in turf management. With the experience of over 15,000 remotely managed golf flights and counting, proprietary drone hardware, patented image processing techniques, and full service flight operations, GreenSight is making nex-gen turf management technology easily accessible to all turf managers.

Our daily automated drone service removes all of the hassle of maintaining expensive drone hardware, doing complex flight planning and manually processing imagery, allowing turf managers to focus on the benefits of drone analytics without getting overwhelmed by the logistics of gathering and processing drone imagery. We send our drones to you and operate them remotely so you don't have to. We analyze your entire golf course in a single daily flight, and then deliver you actionable data in under two hours that's accessible from anywhere in the world with an internet connection.

The GreenSight drone features a class leading 60 minutes of flight time on a single charge, meaning we can cover up to 36 holes of golf in a single flight without the need for time consuming battery swaps or charge cycles.

The on-board camera system features three different sensors that synchronously capture high resolution RGB, near-infrared, and thermal imagery that we use in conjunction with our patented image processing techniques and artificial intelligence to deliver powerful visual analytics that help turf managers to save thousands of dollars per year in water, chemical usage, and scouting, all while improving the quality of their turf.







### GreenSight gives us the feeling that everything is under control



SCOTT PULASKI Golf Course Superintendent Walloon Lake Country Club Petoskey, MI

#### **Walloon Lake Country Club**

Situated right on Walloon Lake, the original nine holes were built in 1904. It wasn't until 1925 that more land was purchased and more golf holes were built. However, during WWII, finances got tight and the course had to close.

Nine holes would reopen in 1948 and it wasn't for another 42 years (in 1990) that Walloon Lake Country Club would resume to an 18-hole course. It is known for its family atmosphere, a place to relax, and its fast greens!

#### What attracted you to GreenSight?

Having been a superintendent for 26 years, 11 of them at WLCC, I was still not capable of seeing every square inch of the golf course, even with a distinct process. I was very fortunate to have complete support from the General Manager and membership to try GreenSight after numerous club meetings.

In February 2019, while we were at GIS in San Diego, my GM and I visited your booth and we both knew immediately this drone would help us see more of the course and also stay ahead of turf management decisions.



#### What is the biggest reason GreenSight technology has stayed at Walloon?

Staying ahead of localized dry spots in fairways has been the biggest reason this drone has stayed on the property. Flying daily or weekly, depending on the season, the drone imagery has given not just peace of mind, but it has also provided the support to communicate to members with pictures and evidence.

Membership really loves the golf course for its playability. They don't want to live on the edge too much, but they still enjoy firm conditions. Instead of just watering based on what we "think", the drone gives us real-time, accurate data on where to water appropriately.

#### How has GreenSight drone become a part of your day?

If you are going to fly the drone and use the imagery, you really have to commit to it and make it a part of your program. But, by using the imagery daily, you can more effectively manage water, applications, rain events, etc. because it becomes a course conditions threshold measurement. Really tuning into the drone analytics and knowing what types of conditions will be presented to the members is the best part.

We've even caught ourselves using it to audit irrigation. The imagery clearly showed wherever we popped up certain heads! It's actually kind of like high-speed internet. Once you start using it, you can't go back to dial-up.

#### What is the biggest advantage that GreenSight has provided?

You probably won't believe this, but being able to go home, relax, and not worry if we missed anything on the course. Some days, we're able to get around just about everywhere, but nothing can replace the drone flying overhead and having three different cameras showing us different views of the property. It gives us the feeling that everything is under control.

#### Is there any obvious Return-on-Investment in flying with GreenSight?

We are lucky enough to have free lake and well water so we aren't saving a ton of money on water. But I do know that this has saved our water usage on the property over the last few years. The biggest ROI for us is peace-of-mind knowing that we are completely capable of staying ahead of wilt stress and any localized dry spot issues that used to be a headache.

Having this drone is like having another guy scouting the golf course with my set of eyes without actually paying for another employee with that type of qualification. This drone has saved me from the scrutiny of getting too dry. It has been priceless! We're seeing the savings in knowing the golf course is staying healthy before we have to take reactive measures to fix it. There really is significant ROI in the improved playing conditions.

www.walloonlakecc.com/Golf



### Kevin Sullivan

Director of Agronomy | Blackhawk Country Club

he prestigious Blackhawk Country Club is a 36-hole facility in California. Director of Agronomy Kevin Sullivan has held his management position on the property for seven years, five as the Director of Grounds. He was previously the superintendent at San Jose Country Club.

Efficiency is everything for Kevin, and he recently commented; "Having the GreenSight drone fly the course really helps us do so much more without having to be on the course all the time in person. It's so much more convenient being able to see everything that is happening on our course and much faster than just observing it from a cart ride.

"We have two TV screens set up in the shop, one for the job board and the other for the GreenSight drone imagery. Staff can look at the drone images the next day and address any actions that are required."

Kevin is a forward-thinking superintendent and is really keen on collecting data and added: "I find it useful that we can use the previous week's imagery to show progress and identify potential problems. It's great to be continually collecting data from the course that will help us year-on-year.

The GreenSight drone is considered by Kevin to almost be another member of the staff and Kevin uses it as a motivational tool for staff to use to show progression and effort on turf health and project work.

And when it comes to ROI, Kevin said: "The biggest ROI for us, has been spraying less frequently. With the drone data we are able to treat suspect spots for disease instead of just spraying a blanket application, saving thousands."

"With the drone data we are able to treat suspect spots instead of just spraying a blanket application, saving thousands"





### Aaron Fankhouser

Golf Course Superintendent | The Club at Rolling Hills

aron Fankhouser has been the first and only superintendent at The Club at Rolling Hills Golf Club for the past 18 years. Aaron has enjoyed using the GreenSight drone imagery to navigate his daily decision making process and in particular he has been using the data to manage his irrigation. Aaron has been flying his drone for a few years now and he is keen to track year-on-year changes of applications on play and view how the course has changed.

Aaron uses the drone to provide him with daily feedback for course management and he really enjoys being able to access the imagery remotely from home, allowing him to be more present with his family.

Aaron commented; "Being able to log in to the dashboard while being on the course to align with our field observations has been a real game changer for me.

"The turf health of the course is critical and flying the drone has given me a whole new perspective to think about.

"We've seen a return on investment in mental health and peace-of-mind as using the drone data really has increased my confidence in making more informed decisions specifically for the turf management of the course." "Being able to login to the dashboard while being on the course to align with our field observations has been a real game changer for me"





### Bryce Yates

Golf Course Superintendent | PGA Frisco Resort

ryce Yates is in his second year as superintendent at PGA Frisco Resort, a new-build course with plans to become a PGA tour stop. He was originally attracted to the GreenSight platform when he was working at Valhalla Golf Club in Kentucky. Bryce enjoyed seeing the progress with the daily drone imagery. While he initially used the data for the new-build project, as things progressed, he also utilized the information for daily turf health needs.

Since flying with GreenSight he has reduced his irrigation usage and when a rare winter storm hit in early 2021, Bryce used the drone imagery to aid his greens recovery which really made things easier.

Bryce commented; "The GreenSight platform has been a real aid to our progress. Being able to login remotely and make changes is a real plus for us.

"I am also really pleased with the amount of data that we can capture. We have been able to use the drone to tell a story about the property. Being able to review course trends on a weekly or monthly basis is helping us to build up a valuable historical record that can be referred back to, again and again.

"In summary, GreenSight has given us validation! Especially when it comes to justifying the course needs to our membership." "GreenSight has given us validation! Especially when it comes to justifying the course needs to our membership"





### John Ballard

Golf Course Superintendent | Valhalla Golf Club

ohn Ballard is the superintendent at Valhalla Golf Club, the venue of the 2024 PGA Championship.

The course has recently undergone a renovation and John used the daily imagery from his GreenSight drone to help educate club members when selling the renovation plans to them. With the renovation now complete John plans to use the drone extensively to help him make irrigation adjustments.

John said: "I can see the importance of the relationship between irrigation management and daily drone flights increase with every flight we do.

John continued; "Having data about the course available from the drone so quickly and comprehensively really has helped us make moisture management decisions that have made key improvements to the course." "I can see the importance of the relationship between irrigation management and daily drone flights increase with every flight"





### Tim Ansett

Former Golf Course Superintendent | Manito Golf & Country Club

im Ansett is the former Golf Course Superintendent at Manito Golf & Country Club in Washington of 33 years. During that time he flew drones with GreenSight for four years. Tim was drawn to the GreenSight technology when he realized how much time and money he could save in labor costs using the drone to gather information about the Manito course.

"I would have to send out a lot of guys to gather the same info that the GreenSight drone gives me", he said.

Tim added; "Flying the drone allows me to observe the course more routinely. The drone scouts more accurately, and more often and this allows us to better balance our labor hours verses investment per flight."

Tim told GreenSight that he was also a big admirer of the imagery analytics that GreenSight offers. "Having the ability to overlay drone imagery onto our

irrigation map is a real game-changer for us", said Tim.

"I was previously having to stitch the overlays together manually, which was tricky and time consuming. Now, with the GreenSight imagery doing it for me I can afford to overlay the analytics a couple of times a week and this helps us make real-time adjustments to our irrigation practices."

Tim concluded; "The biggest ROI for us at Manito Golf and Country Club has been the ability to use the data to provide consistent playing conditions for the members. Through the data we now have the ability to really push the turf to get the results we desire. There's no doubt that since deploying the drone we are using less water and less manpower to scout the course.

"Overall I have a more detailed and comprehensive monitoring solution for our turf moisture and that helps our irrigation needs."

"There's no doubt that since deploying the drone we are using less water and less manpower to scout the course"





### Flying with GreenSight gives you more.

GreenSight is more than just a daily automated drone service. When you fly with GreenSight you also get access to the full software suite of TurfCloud golf course management tools including the golf course industry's only digital job board that utilizes artificial intelligence to help you plan your day and track your investments across the golf course.

Additionally, integration with Soil Scout's wireless inground soil sensors and our daily, automated drone service, gives superintendents the first above and below ground view into water management and plant health in the industry.









GreenSight drones help turf managers save 25% in annual water costs!

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