

# San Diego, 2050 Is Calling.

## HOW WILL WE ANSWER?

### HOW TO MAKE YOUR BUSINESS CLIMATE RESILIENT: A CASE STUDY



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Founded in 1981, Hunter Industries is a global manufacturer and provider of products and services for the landscape irrigation, agricultural, and lighting industries, as well as a provider of custom manufacturing services. Headquartered in northern San Diego County, Hunter has manufacturing and distribution facilities in San Marcos and Tijuana, Mexico. Hunter occupies a 20 acre campus in San Marcos, and employs almost 2,000 individuals in its San Marcos and Tijuana facilities combined. Hunter is a privately held, primarily business-to-business company known for its innovation and products that use as little water and energy as possible.

Climate change has a direct effect on Hunter Industries. The company requires adequate water supply and healthy watersheds for its own operations and the vitality of its irrigation business around the globe. Hotter temperatures, where Hunter facilities are located in San Marcos and Tijuana, require more cooling of buildings as well as mitigation against other risks such as increased frequency and intensity of wildfires. More frequent and serious droughts, floods, changes in precipitation and temperature extremes, all caused by climate change, impact the use of the company's products, but Hunter remains aware and prepared.

As a leader in the irrigation industry, Hunter was the first company in its sector to disclose its energy and greenhouse gas emissions (GHG) publicly. In 2012, Hunter set ambitious goals for energy, GHG emissions, water use and waste reduction. The company continues to strive to achieve these goals.

# Achievements

## Energy

With increasing demand for energy and the added threat of climate change, the company set a goal of reducing its carbon footprint by 30% by the year 2018.



When remodeling existing buildings or constructing new ones, Hunter includes energy efficient features. New HVAC systems, insulation, dual pane glass windows and daylight harvesting skylights have been installed in older buildings, while newer ones have been built to LEED standards. In 2013, remodeling of the engineering buildings resulted in reduced gas (13,800 therms) and electricity (310,300 kWh) consumption while reducing CO<sub>2</sub> emissions by almost 430,000 pounds.

Hunter partnered with a green engineering and consulting firm to perform an ASHRAE Level 2 audit of the San Marcos campus. A Level 2 audit included a walk-through of facilities and operations followed by detailed calculations to identify inefficiencies. Using the efficiency analysis, the consultants provide site-specific operating cost and resource saving measures such as lighting retrofits. For example, in 2015 and 2016, Hunter took advantage of SDG&E's incentive and rebate programs to install LED lighting in its San Marcos campus.

In addition, Hunter has installed over 2,000 solar panels that produce over 700,000 kWh of energy, enough energy to provide 10% of the power needed to operate the San Marcos campus.

Overall, as measured by its chosen measure of CO<sub>2</sub>E/build dollar, Hunter lowered the energy and greenhouse gas intensity of its products by 16% between 2012-2015.

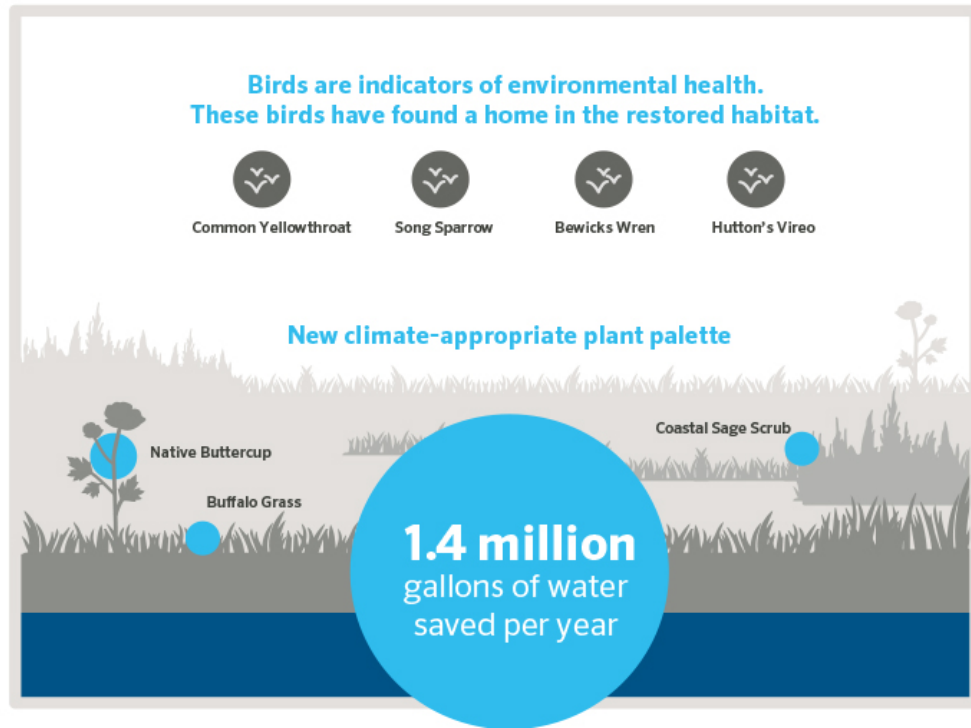
## Water

[H2O Futures](#), an environmental design firm, completed an extensive water use assessment for Hunter in 2010. Based on the assessment results, Hunter embarked on multiple water reduction projects with a goal to use 25% less water by 2018.

Projects included restoring a portion of the company's campus park back to native habitat and use of an on-site well in San Marcos as a way to reduce the need for costly, energy intensive imported water from northern California and the Colorado River. By using water from their well, Hunter calculated they offset 20 Metric Tons of GHG emissions in one year because water was not transported from distant sources.

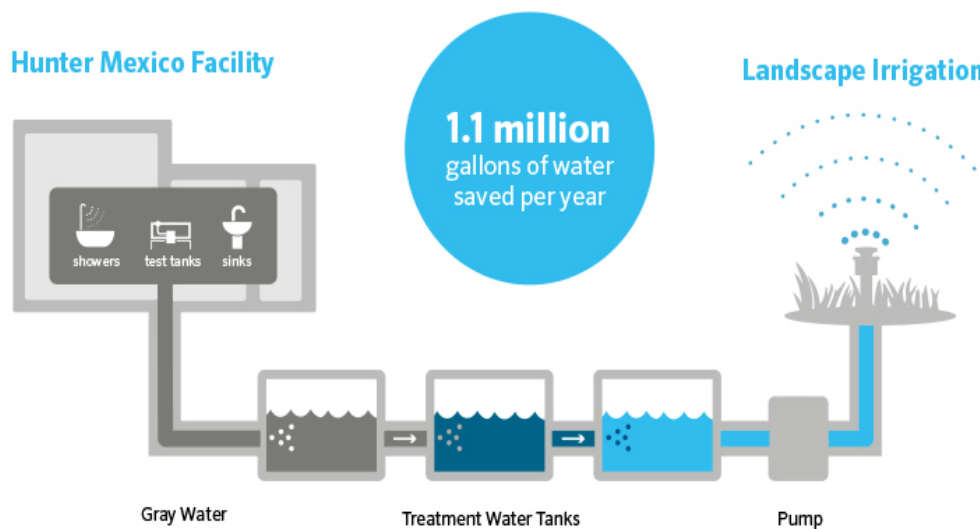


# Hunter Park Restoration



Hunter's state-of-the-art Tijuana facility has a 5,000 gallon gray water system. All sinks, showers, and test tanks are piped to a treatment tank, so water can be reused to irrigate the surrounding landscape. Hunter is exploring gray water recycling at the San Marcos campus as well.

## Gray Water Recycling



## Waste

Hunter is closing in on its goal to be a zero waste entity. As of the end of 2016, the company diverted 85% of its waste from landfill. The company was able to reduce waste, and related GHGs, by conducting waste audits. These audits showed that most waste not being recycled was waste such as food and paper which can give off potent GHG emissions in landfills. Employee recycling centers were set up, and the company also placed coffee grounds collection buckets at Hunter coffee stations. Employees collect the grounds to use in their gardens or compost piles. In one year, Hunter was able to repurpose almost 12,000 lbs. of coffee grounds as organic fertilizer instead of sending them to the landfill.



## Challenges



**Peak Energy Loads-** Summer coincides with Hunter's high energy season when manufacturing is at its peak and HVAC units are running at maximum capacity due to hotter ambient air temperatures. With added threat to the energy availability in the San Diego region and the compounding effects of climate change, the facilities department and others are working on an energy reduction awareness and action plan.

**Company growth and acquisitions-** Hunter has been experiencing significant growth in recent years, including acquiring several other companies, which increases the company's social and environmental impact in various ways. Acquired companies do not necessarily have sustainability or GHG reduction goals in place. As Hunter grows, it is faced with the common challenge of how to incorporate new entities and how to set and achieve goals to lessen their environmental impact while producing more products.

**Data collection and management-** The process of tracking and reporting on GHG emissions is no small feat given the multiple sources of emissions across the company, and number of individuals responsible for pieces of the data. This challenge will only get more complex as the company expands.



**Leveraging sustainability to drive competitive advantage-** Hunter is an industry leader in producing highly energy and water efficient products. Hunter was the first in its industry to start tracking and reporting on environmental impacts. However, stakeholder engagement work has shown that many of its stakeholders, including customers and distributors, are not yet aware of Hunter's sustainability efforts. Once stakeholders are made aware, these efforts may provide Hunter with a competitive advantage against its competitors, but that opportunity has not yet been leveraged to its full potential.



## Insights and Lessons Learned

### 1) Setting goals and targets spurs action and innovation

Metrics drive employee engagement as well as help communicate accomplishments that in turn promote more action. Because Hunter believes climate change is a direct risk to business and the quality of life for its employees and customers, the company identified initiatives to reduce GHG emissions.



- ✓ Increase solar power generation 35% by 2020 - Estimated savings: 560,000 kWh and 164 Metric Tons of CO<sub>2</sub>e
- ✓ Retrofit all applicable lighting to LED by 2020 – Estimated savings: 700,000 kWh and 230 Metric Tons of CO<sub>2</sub>e
- ✓ Install new chiller for headquarters, HVAC system replacements and process water savings
- ✓ Light harvesting on available roofs
- ✓ Correct automation air leaks
- ✓ Purchase renewable energy
- ✓ Consider purchasing GHG offsets

Having a clear and public target has also inspired employees to find new ways of doing business that are more resource efficient and spawn innovation. For example, Hunter's planning and manufacturing teams minimized production on weekends while increasing productivity, which helped lower energy use by 6.2% and increased manufacturing output by 2% in one year.

### 2) Employee Education and Engagement

To help drive its management approach to sustainability and embed it through the whole company, Hunter created the Focus 3P team (People, Planet, Profit), which consists of volunteers from various departments company-wide. The group meets on a regular basis to develop and guide sustainability actions.

To formalize sustainability benchmarks at Hunter, the Focus 3P group created six strategic visions for key sustainability issues: Landfill Waste, Corporate Responsibility, Employee Satisfaction, Climate Change, Technology, and Globalization. Every year the group chooses to advance one or more projects in each of these six areas and tracks results accordingly, sharing them with the whole company so all employees who have contributed can share in the success and be inspired to come forth with additional projects. The 3P team, working with the CSR team also ensures reminders about waste reduction and recycling and other sustainability efforts are played on break/lunch room monitors.



### 3) Connecting to Climate Education Partners and Other Resources

Hunter has sought out and takes advantage of various vendors and programs to help it achieve its sustainability and climate goals. It has used SDG&E's incentive and rebate programs for lighting retrofits, and energy and water audit vendors to help identify specific projects to pursue. Hunter also invited

Climate Education Partners to hold a seminar at the company's headquarters to discuss top climate issues in the San Diego region along with Hunter leadership and the Focus 3P team. The point was to educate employees and help them identify the biggest impact climate change will have on the company.

## Looking Forward

**Leveraging Competitive Advantage-** Hunter's water and energy efficient products may see an increase in demand as a water supplies globally become scarcer, temperatures increase, and the focus on conservation grows. Volatility and potential of price increases in the energy market may also drive increased demand. Hunter believes it is in the company's best interest to create products for their customers that maximize water and energy savings as well as help customers become more resilient to the changing climate.

**Product Design-** Hunter is making every effort to reduce waste in its manufacturing processes, and to include more recycled materials in its products. It is also looking at product end of life issues, including trying to design products so that they can be disassembled at end of life and components can be reused or recycled. In addition to saving on materials and preventing plastic pollution in the environment, these efforts will reduce energy use and emissions in the sourcing and manufacturing processes.



**Landscape Master Plan-** Hunter's campus landscape is over 20 acres and requires water, gasoline, labor, and other resources to maintain. Considering environmental impacts, Hunter has undergone a campus wide landscape master planning process that aims to replace traditional landscapes with drought tolerant/climate appropriate landscape. Climate appropriate landscapes greatly decrease the

necessity for supplemental irrigation, which is pumped hundreds of miles from the Colorado River and Sacramento Delta Basin, which decreases the water-energy footprint. Climate appropriate landscape also requires less maintenance which means less gas- powered maintenance equipment being used and less green waste being produced that is then transported off site. Hunter intends for the campus landscape to become an educational and training tool for employees, customers and others who visit the campus regularly.

**Industry Leadership-** Given its history of innovation, Hunter is uniquely positioned to promote environmentally responsible programs with its customers and stakeholders. As president of the Irrigation Association in 2017, Greg Hunter, Hunter Industries CEO, has been promoting water conservation products across the industry. They have also teamed with product distributors to introduce pilot programs to recycle used irrigation equipment to reduce the impact on landfills.



Climate Education Partners (CEP) is a collaborative team of multidisciplinary experts developing a new model for educating high-profile decision-makers, community leaders and the general public in the San Diego region about climate change.

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