

# Sauder Woodworking Co.

## 2019 Sustainability Report

**Stewardship:** *Utilizing resources in ways that minimize waste and benefit all.*

One of the enduring values that Sauder embodies is Stewardship. Erie Sauder founded Sauder Woodworking Co. in 1934, with the firm belief that when we are entrusted with resources, it is both a business and a moral obligation to apply those resources in ways that benefit all. Together with Better Ways, Respect, Integrity, and Servanthood; Stewardship remains one of the five core values that guide Sauder Woodworking Co. today and into the future.

This 2019 Sustainability report is Sauder's 10th update on how we are doing in our pursuit of outstanding environmental stewardship. Our quest starts with careful selection of raw materials, encompasses how those materials are utilized and processed, and extends into how we re-use and recycle any excess material or waste. Sauder's Environmental Sustainability Policy ([www.sauder.com/About/Sustainability](http://www.sauder.com/About/Sustainability)) documents our commitment to environmental sustainability, and Sauder's Sustainability Leadership Team provides proactive leadership for continuous improvement in environmental stewardship.

### Sustainable Materials:



Beautiful and functional furniture starts with good design, but is realized through superior materials and workmanship. In addition to ensuring that the materials used in furniture are engineered to provide beauty and durability, Sauder has also taken steps to ensure that the materials are positive for the environment. As the product of soil, sunlight, air, and water, it's hard to be greener than a tree. So it stands to reason that the most sustainable mainstream furniture materials come from trees. Composite wood panels, primarily particleboard and medium density fiberboard, take the inherent benefits of trees to the next level to provide a wealth of benefits to both consumers and the environment.

## Responsibly Sourced:

Sustaining an abundant supply of timber is essential to sustaining North America's forests and our planet. That's why wood utilized in composite panels is responsibly sourced as mandated by state forestry management laws and often further certified by third party groups such as the Forestry Stewardship Council or Sustainable Forestry Initiative.



### Utilization of Forest Resource



## Maximum Utilization:

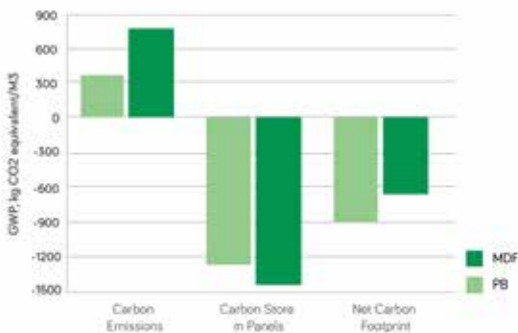
Composite panels utilize up to 95% of the forest resource, a tremendous increase from the 60-65% utilization of solid wood production. The end result is products produced with near zero waste that ensure the highest and best use of the forest resource.

## ECC Credibility:

Sauder sources all panels for U.S. production from ECC certified mills. ECC certified mills are required to meet EPA formaldehyde emissions requirements for 100% of their panels 100% of the time. The standard specifies carbon footprint, life-cycle inventory, and other verifiable environmental practices and emphasizes the responsible use of wood fiber by composite panel manufacturers.



### Carbon Impact of Composite Panels



## Climate Neutral Production:

Thanks to responsible sourcing, near-zero waste, and efficient production operations, composite wood panels contain more sequestered carbon than the amount expended in their manufacture and transport.

## Net Carbon Sequestration:

Trees absorb carbon dioxide (CO<sub>2</sub>) and convert it to the food that they need to grow. In the process, trees release oxygen (O<sub>2</sub>) back into the atmosphere and store excess carbon in the wood. This sequestered carbon remains locked inside the wood – even after it becomes part of a composite panel or a piece of furniture. And, since young trees sequester more carbon than mature trees, a sustainable cycle of growth, harvest, and renewal helps mitigate climate change.



## Exceptional Living:

According to the Environmental Protection Agency (EPA), the average person spends about 90% of their time indoors, so the quality and safety of the indoor air that we breathe is critical. Fortunately, the United States has some of the strictest emissions standards anywhere in the world. Consumers can rest assured that furniture made with composite panels supports the healthy lifestyle that they desire.

# Solid Waste and Recycling:

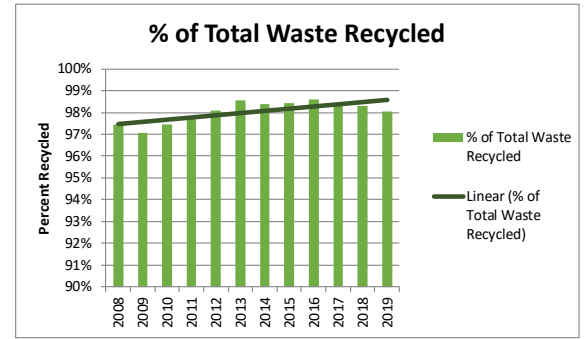
What started as instinctive frugality has grown into intentional efforts to reduce, re-use, and recycle solid waste. Sauder is constantly working to improve its panel yield and to deploy additional recycling initiatives to minimize landfilled waste.

## Wood Waste:

Production processes such as sanding, cutting, drilling, molding, and shaping naturally create sawdust and other unusable wood waste. In fact, Sauder's manufacturing processes generate approximately 160 tons of wood waste every day. However, thanks to Sauder's groundbreaking biomass co-generation facility, the vast majority of this wood waste is used to generate renewable, carbon neutral power. Remaining wood waste is sold or donated to a variety of industrial and agricultural users. No wood waste has been taken to a landfill for over 25 years.

## Non-Wood Waste:

Sauder has developed an extensive range of recycling programs for non-wood waste. By recycling 98% of total solid waste and over 75% of non-wood waste, Sauder employees embody the company heritage of environmental stewardship.

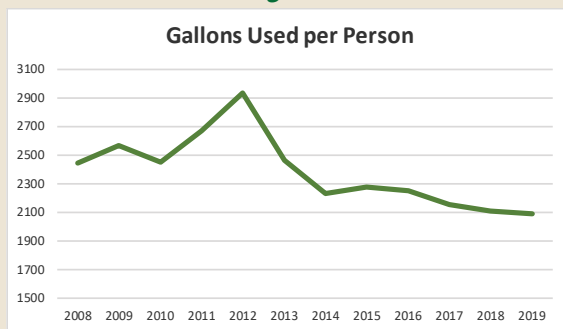


# Water Conservation:

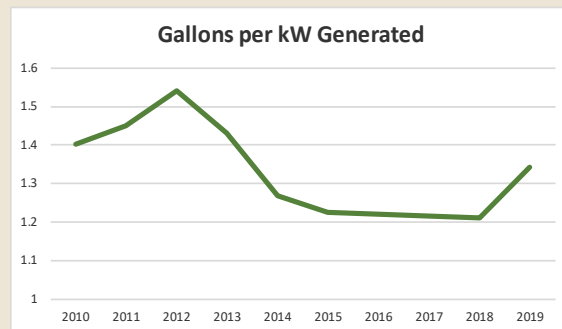
The vast majority of water consumed by Sauder Woodworking is used for cooling purposes in the co-generation cycle. Water consumed at the co-gen plant evaporates as part of the cooling and condensing process of power generation. Over time, Sauder has invested in process improvements to minimize the water loss through the generation cycle. During 2019, Sauder experienced several process issues that caused a temporary spike in the amount of water used for generation. The special causes experienced during 2019 have been addressed, and Sauder expects to return to more normal usage going forward.

The balance of the water is used for sanitary purposes. Thanks to ongoing conversion to low-flow fixtures, Sauder experienced record low water usage per person during 2019.

## Sanitary Water Use



## Power Generation Water Use



# Energy and Carbon Footprint:

In addition to Sauder's biomass, co-generation plant, Sauder is investing in process improvements that reduce its carbon footprint. One such investment is the EcoGate dust collection system.

Dust that is generated while processing wood needs to be extracted from the work environment. It is removed through dedicated pipes that vacuum dust away from the source and carry it pneumatically to large filter enclosures. High capacity fans, driven by large electric motors, are required to generate the high volume of air flow needed to remove the wood dust.

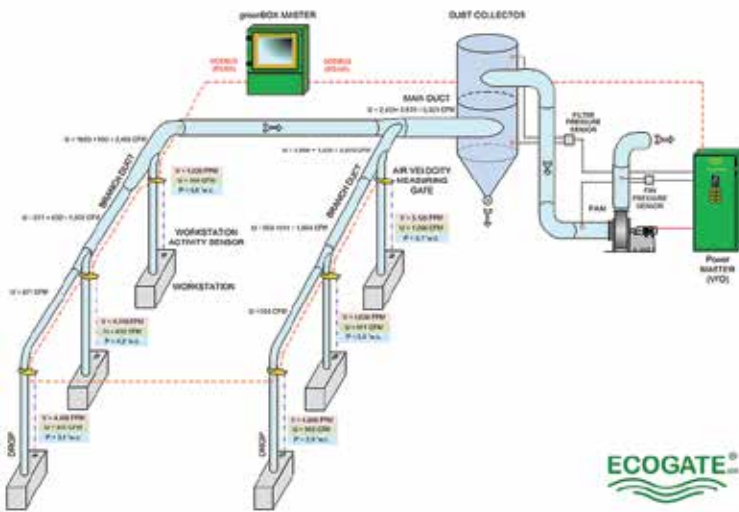
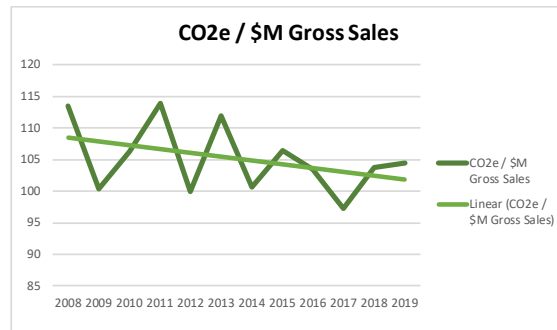
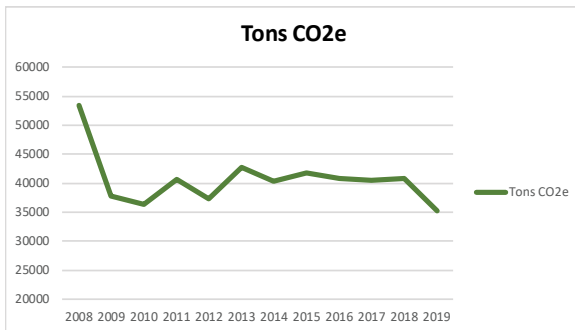
Several years ago, an energy audit revealed that dust collection systems use approximately 37% of all energy consumed by Sauder. Further analysis showed that, at any given time, not all workcenters attached to a dust collection system were in use. The dust system, however, was running at full capacity regardless of the actual need for dust extraction. Eliminating this unnecessary power usage led to a multi-year, multi-million dollar project to install Ecogate controls on all dust collection systems.



Dust collection filter house

Over the course of several years, Sauder installed 721 automatic gates and controls on 31 complete dust collection systems. The good news is that the environmental benefits of the Ecogate system are enormous. On average, Ecogate reduces the energy consumption of a dust collection system by approximately 50%. Collectively, Ecogate has reduced Sauder's energy consumption by 11,068,871 kWh per year. That amounts to an annual reduction of 6,285 tons of CO<sub>2</sub>e.

The results of the Ecogate project and other investments in areas such as LED lighting and compressed air efficiency are evident. During 2019, Sauder's total carbon footprint (CO<sub>2</sub>e) was the lowest that it has been since Sauder began tracking CO<sub>2</sub>e in 2008.



Ecogate dust system



Automatic gate on dust collection pipe.

## Conclusion:

The end result of all of Sauder's efforts are products that combine outstanding style, cost effective value, and exceptional environmental stewardship. Part of the "pride" that is embodied in our purpose statement of "Proudly Furnishing Families and Friends" comes from knowing that we are doing our part to protect the environment. We are demonstrating our stewardship by producing environmentally responsible products in ways that conserve our world for today and preserve it for tomorrow.

