

# WINNEBAGO INDUSTRIES



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## COMPANY PROFILE

Winnebago Industries is a leading manufacturer of recreational vehicles (RVs) in the country. The company is headquartered in Forest City, Iowa, with a workforce of over 2,400 people. The production facility in Forest City covers more than 200 acres making it the largest production facility of RVs in the world. Additional production facilities are located in Charles City, Iowa, Lake Mills, Iowa, and Middlebury, Indiana. Winnebago differs from several other RV manufacturers because the bulk of the components used in the RVs are produced at Winnebago's main facility in Forest City.

## PROJECT BACKGROUND

Winnebago has long been committed to reducing their environmental impact. This is the third year that Winnebago has participated in the Pollution Prevention Intern Program in order to help with their sustainability efforts. The company's current environmental project is to divert solid waste from the landfill. Winnebago currently diverts nearly 70 percent of their solid waste from the landfill, and the goal of the intern's project is to increase the amount diverted.

## INCENTIVES TO CHANGE

RVs are built for people to enjoy the outdoors, and Winnebago is committed to helping their customers enjoy the environment by practicing sustainability and conservation in their manufacturing operations. Winnebago continues to strive towards a goal of Zero Landfill and grows closer each year. The company also recognizes the economic benefits of Zero Landfill as well. With landfill fees increasing across the state, there is even more opportunity for cost savings.



## RESULTS

**Wood Waste Recycling:** Winnebago generates wood waste from broken pallets, packaging, and scrap material in their cabinet production area. Currently, all of the wood that Winnebago discards is put into separate containers and is delivered to the landfill. A wood waste recycling company has agreed to take all of the wood waste that Winnebago generates and grind it up for use as mulch and animal bedding. An exterior concrete pad will be constructed to store and separate the wood into various grades, which can then be loaded onto trucks. By recycling their wood waste using this new method, there will be significant cost savings for Winnebago.

**Stitchcraft Recycling:** Stitchcraft is responsible for the upholstery and carpeting in all of Winnebago's RVs. Kraft paper is used as the backing on certain fabrics to protect it from the conveyer belts. There are also cardboard tubes that the fabric and kraft paper is rolled on. Both the kraft paper and the tubes can be incorporated with the cardboard that is currently baled at the waste sort facility. By recycling these materials, Winnebago can divert additional solid waste currently being sent to the landfill and increase their cost savings.

**Ceramic Tile Recycling:** Ceramic tile is used for flooring in several RVs that Winnebago produces. Currently, all scrap ceramic tile is sent to the landfill. As an alternative, the intern is researching both short and long term options for diverting and beneficially reusing this material.

**Sidewall Scrap Recycling (East Bertha Production Area):** The side walls of RVs are composed of fiberglass and polystyrene. The materials are glued and pressed together, which makes recycling the scrap composite material very difficult. The compactor this material is loaded into is hauled to the landfill more than any other compactor at Winnebago because the sidewall scrap is a large volume, low density waste. The intern will conduct additional research during the second 12 weeks of the internship to determine how this material can be either recycled or disposed of more efficiently.

**Motor Home Assembly Plant Waste Sorting (Bertha Production Area):** After conducting a waste sort, the intern discovered that over 40% of the waste coming from the Motor Home Assembly plant has the potential to be recycled. During the second 12 weeks of the project, the intern will be researching different ways that recycling could be implemented in this part of the company campus.

