

## Sustainable Materials Management in Action: Chumash Casino Resort

The Chumash Casino Resort in California is owned and operated by the Santa Ynez Band of Chumash Indians. According to the Resort, it generated 6.44 million pounds of waste and spent \$255,000 on waste management in 2012, and generated 2.3 million pounds of waste and reduced total waste management costs to \$165,000 in 2017. This change reflects a nearly 65 percent waste reduction and a 35 percent cost reduction in only five years. This impressive accomplishment was the result of continuous efforts to find and implement Sustainable Materials Management (SMM) solutions.



Photograph credit: Chumash Casino Resort

Mark Funkhouser, the Resort's custodial services manager, explained that auditing waste streams and making decisions based on return on investment (ROI) is the path to successful SMM. Some of the Resort's projects have taken 12 years or longer, with a few failures and lessons learned along the way, so persistence is important. "The Resort learns from each project and gains knowledge for future initiatives," Funkhouser said.

According to the Resort, a 2006 internal audit of its 40-yard roll-off dumpster found that most Resort recyclables came from the casino floor and parking structures. The Resort and its waste hauler developed a color-coded bag system to sort wastes and more easily retrieve recyclables. Use of the system reduced waste materials sent to the landfill by 6 percent in 2007. Later, the Resort partnered with a composting company to compost kitchen and food waste, and to collect dry solids produced by the Resort's wastewater treatment plant.

The Resort's facility department conducts annual audits and each year focuses on areas of highest potential. The department selected its projects partly based on anticipated ROI, with the expectation that the projects will pay for themselves over the long run. In the meantime, project teams gain valuable experience and explore efficiencies. The department gets approval from senior management by documenting and sharing data and visuals on current conditions and expectations for the future.

The Resort currently partners with other groups on a number of other recycling efforts on site. A textile recycler recycles employee uniforms; a nonprofit organization recycles discarded hotel soaps and hygiene products and distributes them to places in need; and other partners recycle e-waste, batteries, cardboard, carpets, polystyrene foam and plastic bags. Also, the Resort is enrolled in a program for the recycling of its post-consumer polystyrene cups.

Today, the Resort continues to develop innovative ways to manage its materials efficiently by minimizing waste stream expenditures, maximizing recycling revenue, and partnering with other organizations.

### To learn more, visit these EPA websites:

Sustainable Materials Management:  
<https://www.epa.gov/smm>

Integrated Waste Management Plans:  
<https://www.epa.gov/tribal-lands>

## Sustainable Materials Management on Tribal Lands



### A Life-Cycle Approach to Managing Materials



U.S. Environmental Protection Agency

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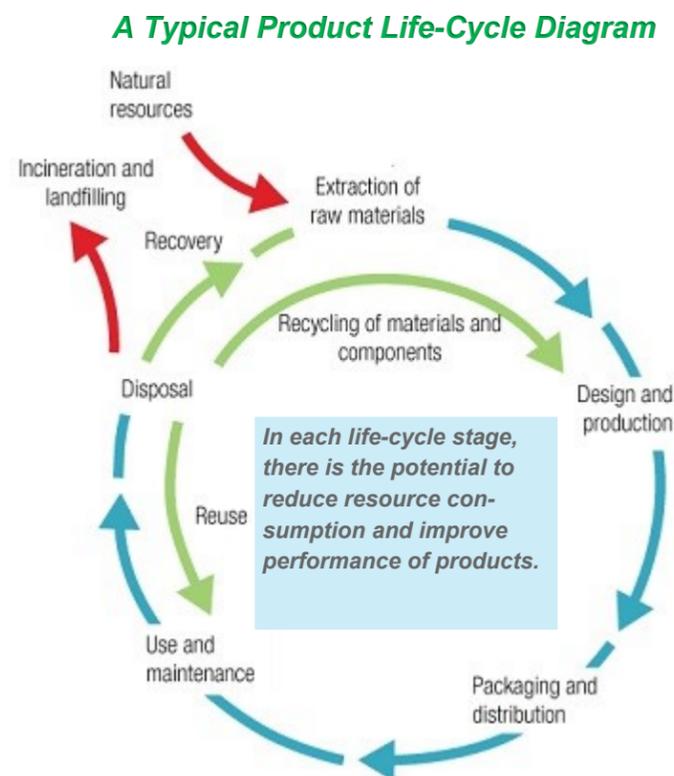
## Overview

We are surrounded by products and materials in our daily lives. Food, paper, building materials and packaging are a few examples. Paying attention to how these products are made and what happens after we use them is vital to ensuring that we have sufficient resources to meet today's needs and tomorrow's priorities.

Tribal decision makers often use the Seventh Generation Principle, which says decision makers should consider the effects of their actions and decisions for seven generations into the future. This philosophy is integral to many Native American cultures. Sustainable Materials Management (SMM) takes a similarly holistic, life-cycle approach to materials and waste management. SMM helps us choose and handle materials in a way that preserves resources for future generations.

Applying SMM approaches can reduce costs, save resources and reduce waste by considering each stage of a product's life cycle—from extraction, production, design and manufacturing through use and reuse to recycling and disposal. Each life-cycle stage requires energy, water and materials, and produces environmental impacts such as wastes and emissions, and may have societal or economic costs. The Chumash Casino Resort, one of our featured case studies in the "SMM in Action" section of this brochure, realized a return on investment using SMM principles and practices.

Through SMM, tribal governments and communities can use and reuse materials as efficiently as possible while also minimizing the amount of materials used and their environmental impacts.



Graphic: UN Environment's Life Cycle  
[www.lifecycleinitiative.org](http://www.lifecycleinitiative.org)

## Sustainable Materials Management in Action: Miigwech Aki

Miigwech Aki, which translates to "Thank You Earth," is an environmentally conscious social enterprise in Bemidji, Minnesota. Started in 2012 and part of the Northwest Indian Community Development Center, the company provides deconstruction services for residential and commercial buildings. The organization addresses a major tribal priority—abandoned structures—using an SMM approach that provides social, economic and environmental benefits. The company's success to date has been built on a strong foundation of local and regional partnerships, extensive community outreach, and creative resource leveraging.



Photograph credit: Miigwech Aki

According to Miigwech Aki, its innovative by-hand approach extends the life cycle of a wide range of construction materials (e.g., sheetrock, lumber, joists, flooring, cabinetry), keeping them out of landfills. The organization targets a reclamation rate of 85 percent across its projects. Reclaimed materials are then resold to clients and the general public. Miigwech Aki provides clients with a summary that documents their materials diverted from landfills, as well as the greenhouse gas reductions made possible by their recycling. The company's approach also provides tax benefits for clients based on the value of the donated materials.

"As part of the Anishinaabe people, we're doing this because this is what we do, we value Mother Earth," said Christopher Bedeau, Miigwech Aki's Crew Chief. "We saw a clear opportunity to reduce widespread waste by reclaiming building products within our communities. We are helping to preserve our greatest resource, Mother Earth, one building at a time."

The company focuses on making a difference in area communities in other ways as well. It prioritizes job training, higher wages and safe working conditions for employees. The company helps staff build career skills and serves as a reference for future employment. "We value our employees," Bedeau said. "They make everything possible, and our approach gives people a sense of broader well-being. This is not just about a paycheck. This is about taking care of the planet and providing for the next generation."

Local and regional partnerships with tribal and local governments and nonprofits have been key to Miigwech Aki's work. Partnering with Better Futures Minnesota, a Twin Cities-based nonprofit, leveraged grant funding and training resources. The Natural Resources Research Institute at the University of Minnesota-Duluth helps the company find high-value markets for reclaimed materials. The American Indian Opportunities Industrialization Center in Minneapolis provides classroom space for trainings. A memorandum of understanding with the U.S. Forest Service led to major deconstruction projects of former housing buildings in the Chippewa National Forest. "We also work with private firms that have an environmental focus, to access additional capacities," noted Bedeau. "For example, an excavation company may come in and recycle concrete from building foundations." Through these efforts and a multi-year track record, Miigwech Aki is now well-established and growing steadily. According to the company, it went from two projects in 2012 to currently averaging five to 10 projects a year. The scale and scope of the projects have grown as well. As of 2018, some projects employ as many as 18 people.

Looking forward, Miigwech Aki is seeking to apply SMM approaches in new ways to reduce costs and save resources. The company is doing this by expanding its services to include energy assistance initiatives. These initiatives include providing energy audits and solar panel installations. "With more projects, we can help more people find work and keep more materials out of the landfill," Bedeau reflected. "We are looking to help this kind of work grow, locally and nationally."

## What You Can Do

*Start small or go big!  
Incorporate SMM into your  
Tribal Integrated Waste  
Management Plan. Ask  
yourself these questions:*

- How can you or your tribe purchase and use fewer materials, or use materials with a smaller impact on the environment?
- How can you waste less? How can you reuse or recycle waste materials?
- Are there others you can partner with to leverage resources?
- Are there organizations that could use your byproducts, trimmings, excess or what would traditionally be considered waste?
- What are the costs and benefits of your decisions? For example, what are the costs and benefits of purchasing more efficient equipment or less impactful materials?