



In 2007, Cortina Integrated Waste Management Inc. (CIWM) received federal approval for its lease of 180 hectares (443 acres) of the Cortina Rancheria in California's Colusa County, which is part of the tribal territory of the Kletsel Dehe Wintun Nation (the Tribe). The proposed development is for an integrated waste handling facility, which includes a material recovery system, composting, contaminated soil remediation, power generation and landfill operations. The land has limited agricultural value as little grows here of any commercial consequence and economic opportunities are scarce due to limited natural resources in the area.

On June 27, 2024, the U.S. Department of the Interior's Board of Indian Appeals (IBIA) unfortunately issued an order upholding the Bureau of Indian Affairs (BIA) regional director's cancellation of the lease held by CIWM.

In order to reinstate the lease of this complex integrated development project, CIWM filed a Complaint in U.S. District Court for the Eastern District of California on October 31, 2024, against the U.S. Department of the Interior, challenging IBIA's cancellation of the lease. CIWM is seeking injunctive relief to vacate and set aside the IBIA decision affirming the BIA's termination of the lease, and to fully reinstate the lease.

Cortina is the ideal manifestation of the vision of Earthworks Industries Inc. (EWK) who have invested significant resources to undertake the necessary steps to permit and operate the project. The proposed development, a multi-faceted waste handling operation, is managed by the company's wholly owned U.S. subsidiary, CIWM. Prior to the lease approval CIWM went through one of the most exhausting Environmental Impact Studies, with detailed site characterization, and helped Cortina create the tribal environmental agency to oversee and regulate the construction and operation at Cortina.

In addition to creating the tribal environmental regulatory agency, CIWM and the tribe also adopted the highest regulatory standards by adopting a combination of California and federal environmental standards. These codes and regulations became tribal law.

CIWM remains focused on its long-term growth strategy. Management will continue to explore additional opportunities that build upon the Cortina model, which is intended to serve as a blueprint for future waste handling and recycling projects. CIWM is committed to maintaining the highest industry standards as it looks to develop projects on both tribal and private lands. CIWM's work over the past decade has set the stage for a new era of waste management facilities in North America. The company has attracted significant interest from both institutional and public investors over the years and we expect this interest to continue to grow.

America is facing a massive garbage crisis

CIWM's project taking shape in the Sacramento Valley comes at a time when the U.S. continues to generate vast amounts of waste while facing increased challenges associated with responsibly disposing of, recycling and managing this waste.

Environment America, a national network of 30 state environmental groups, said that although the United States is home to only 4% of the world's population, America is responsible for 12% of the planet's trash.

Americans throw out 4.9 lbs. of trash per person every day — that's nearly 1,800 lbs. of materials per American every year. In 2018 alone, the U.S. threw out over 292 million tons of municipal solid waste (MSW) — the materials discarded by homes, businesses and institutions, such as universities and libraries. The majority of waste (62%) discarded by homes and businesses in the U.S. is ultimately dumped into landfills or burned in incinerators.

When it comes to food waste, the United States discards more food than any other country in the world: nearly 60 million tons — 120 billion lbs. — every year. That's estimated to be almost 40% of the entire U.S. food supply and equates to 325 lbs. of waste per person. In terms of plastic, Greenpeace states Americans discarded 51 million tons of wrappers, bottles and bags in 2021 — about 309 lbs. of plastic per person — of which almost 95% ended up in landfills, oceans or scattered in the atmosphere in tiny toxic particles.

Verisk Maplecroft, a global risk intelligence company, said America tops the list of countries fueling the waste crisis and “is one of the worst of any industrialized nation for managing its trash” generating over three times as much waste as China.

“The U.S. is not alone though. Highly developed European and North American countries are also disproportionately responsible for the highest levels of waste generation. The highest risk countries include the U.S., the Netherlands, Canada, Austria, Switzerland, Germany, France and Australia”, said Verisk Maplecroft.

Looking forward, The World Bank estimates global waste is expected to grow to 3.40 billion tons by 2050, more than double population growth over the same period.

America's waste management crisis has also been magnified with several Asian countries banning the importation of garbage from the West – a practice driven by the lower cost of recycling or disposing of waste in these countries due to less stringent environmental regulations and cheaper labor. China, Indonesia, Malaysia, the Philippines and Thailand were among the primary recipients of the world's plastic waste, scrap metal, paper and electronic waste until about 2018 when the import bans took effect. The actions of these countries have underscored the critical message that there is an urgent need for nations to handle their waste within their own borders.

As countries continue to address the challenges stemming from systemic issues in how waste is produced, handled, recycled and disposed of, opportunities in this sector are also growing at a fast pace.

Grand View Research, a market research and consulting company, reported recently that the global waste management market size was valued at US\$1.3 trillion in 2022 and is expected to grow at a compound annual growth rate (CAGR) of 5.4% from 2023 to 2030.

A key driver for the growth of the global waste management market size is the rise in the world's population and the subsequent increase in waste generation. Based on the report, increasing government regulations are also expected to support market growth.

New technologies hold solutions to solve global trash crisis

California, like many parts of North America, is facing a critical shortage of landfill capacity as the amount of solid waste material has drastically increased in the last decade.

When Earthworks' Cortina project begins accepting and processing refuse, it will host the first landfill site to open in California in 20 years. There are now 176 operational landfills in California with 35 of those scheduled to be closed by 2030.

While landfill disposal has continued to increase in value over the past few years, the solutions to the growing waste management issues will rely on new technologies, not by dumping trash into landfills, but by RE-use, RE-purpose, RE-cycle, until we achieve zero waste.

From material repurpose to energy generation, CIWM's vision will utilize the newest and most effective technologies to reduce its carbon footprint and other environmental impacts. We will continue to establish relationships and contacts with a wide spectrum of companies involved in all aspects of the business. We will include companies from the traditional waste handling operations to emerging companies involved in transition technologies such as anaerobic digestion, biofuel, biomass and other waste to energy applications.

CIWM is creating a valuable precedent, a one-stop location "like an eco-park" to test and use new technologies for a new age of waste handling.

It is a truly notable development in the waste management sector, offering a new and unique model for environmentally responsible waste disposal and management in California and beyond.

To learn more about Earthworks Industries Inc., visit www.earthworksinc.com

