

Handling waste generated by a daily population of more than 21,700 is a substantial logistic responsibility. Add in specialized items like brass ammunition casings and hazardous waste generated aboard the Combat Center, one of the largest live-fire training installations in the world, and you have some real challenges.

INNOVATIVE WASTE MANAGEMENT MODEL

The Combat Center looks for efficient and business-like approaches to tackle challenges. One solution was creating an entrepreneurial activity, the Qualified Recycling Program (QRP), within the Natural Resources and Environmental Affairs (NREA) Division.

QRP reissues or recycles more than 172 types of items, keeping more than 8,000 tons of material out of the installation's landfill annually. Since its creation, QRP has decreased annual landfill disposal of solid waste by 44 percent and increased recycling by 48 percent.

Generating an average of \$1.2 million each year, QRP offsets program costs, while funding quality-of-life programs at the Combat Center.



Qualified Recycling Program employees sort household and office recycling.

From 2010 to 2016, the Combat Center recycled:

- **31.0 million lbs of range residue**
- **27.4 million lbs of assorted metals: zinc, brass, aluminum, copper**
- **25.7 million lbs of paper/cardboard**
- **13.8 million lbs of other: fabric, plastic, e-waste, rubber, wood**

Did you know? Recycling 100 cans lights a bedroom for two weeks.

Every member of the Combat Center community can do their part to save these valuable resources.

The Qualified Recycling Program can answer questions about how to reduce, reuse, recycle, donate or dispose of items at the Combat Center. Specific recycling guides are available for homes and offices. Call (760) 830-5666 for more information.



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**MARINE CORPS AIR GROUND COMBAT CENTER
WASTE MANAGEMENT**



RANGE SUSTAINMENT BRANCH

The Range Sustainment Branch developed methods for converting range residue and industrial waste generated during training to commercial scrap for sale or reuse. Pallets, practice projectiles, spent munitions casings, target remnants, tires and more are demilitarized by workers, then sold to American recycling companies. These innovative practices help the Marine Corps in range management and overall sustainability.



A Marine offloads plastic from prop-charge canisters at the Range Sustainment Branch after training.



A hammer mill is used to demilitarize brass casings from .50-caliber machine guns for sale to American recycling companies.

An employee fills sows with molten aluminum from the smelter. Zinc is also melted on-site in a similar manner. An average aluminum sow weighs 1,300 to 1,600 pounds.



RECYCLING BRANCH

The Recycling Branch covers solid waste (trash) and recycling collection, and material processing. Recycling is sold to American recycling companies, and solid waste is sent to the Combat Center's landfill.

An annual average of 7,500 tons of trash and more than 6,000 tons of recyclables are collected from military family housing, bachelor billeting, and industrial and office complexes, with an additional 3,100 tons of trash collected from Camp Wilson, the installation's expeditionary training facility.

The branch strives to exceed a federal mandate that military installations reduce their solid waste footprints by 50 percent.



Steel cans baled to be sold to American recycling companies.

HAZARDOUS WASTE BRANCH

Processing items such as used oil, aerosol cans, antifreeze, electronic waste, batteries and more, the Hazardous Waste Branch ensures the Combat Center complies with federal regulations like the Resource Conservation and Recovery Act. Innovative processes and programs enable training units to safely reuse many hazardous materials, with no additional cost to their command. Any hazardous material that cannot be repurposed or recycled is appropriately disposed of off-site. Since 2002, the installation has reduced hazardous disposal by 51 percent, and reduced associated costs by more than \$390,000.



An employee places a can of spray paint into a machine that will safely remove remaining liquid and store it for disposal. Once processed, the can is ready to be recycled.

RECYCLING PAYS!



From 2006 to 2016, QRP disbursed more than \$1.3 million to Marine Corps Community Services (MCCS) quality-of-life improvements for Marines, sailors and their families. Projects funded include the installation's water park, Heritage Park, Single Marine Program buses and the MCCS Fall Festival.



A model for the Department of Defense, QRP has innovated practices now used by other military installations, and was recognized by the Environmental Protection Agency for Outstanding Environmental Achievement.



A child plays in the installation's water park funded by QRP.