FACT SHEET
Net Zero

Fort Detrick Public Affairs Office
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What is it:
Fort Detrick has been selected as an Army pilot installation for Net Zero Energy and Waste initiatives empowering the post to further lead the Army in exploring additional conservation measures, various alternative sources of energy including thermal and solar, and expanding an already robust recycling and waste management system to meet today's and future national security missions.

Why is it important to the Community?
Fort Detrick is rated in the top 1 percent in safety in the nation and has received a number of environmental and safety awards.

Due to the unique missions found at Fort Detrick numerous opportunities exist to expand through a five-pronged approach including reduction, repurposing, recycling, composting, recovery and disposal. Fort Detrick already boasts a more than 46 percent recycling rate of all waste generated on post. Additionally through incineration, the remaining waste is reduced by more than 90 percent to the municipal landfill and the thermal energy captured by the process is repurposed into stream energy for various uses including heat, sterilization, and sanitation.

A commitment to resource conservation extends beyond the environment but exists as a comprehensive culture of sustainability. Through managing human capital, monetary resources, business efficiencies, safe workplace initiatives, and sustainable strategic planning, Fort Detrick stays committed to the reductions of waste, repurposing of vital initiatives, recycling our precious resources, recovering available opportunities, and partnering with business and government to empower the entire community's commitment to a Sustainable Community of Excellence.

What is the background:

The Army's vision is to appropriately manage our natural resources with a net zero strategy. This strategy is to manage our installations not only on a net zero energy basis, but net zero water and waste as well. Energy security and sustainability are operationally necessary and financially prudent. We are creating a culture that recognizes the value of sustainability measured not just in terms of financial benefits, but benefits to maintaining mission capability, quality of life, relationships with local communities, and the preservation of options for the Army's future. The Army is leveraging a variety of partnerships including alternative contracting tools to partner with the private sector to achieve these objectives. The Army must invest in its installations and improve efficiencies in energy, water and waste for the benefit of our current and future missions and allowing installations to expand successful partnerships with their neighbors and communities. Fort Detrick stands ready to meet the Net Zero challenge given the resource-intense nature of the installation's various national security missions.

Net Zero Energy

A Net Zero Energy Installation (NZEI) is an installation that produces as much renewable energy on site as it uses. To achieve this goal, installations must first implement aggressive conservation and efficiency efforts while benchmarking energy consumption to identify further opportunities. Fort Detrick is already exploring various ways to conserve energy by increasing awareness about turning lights off and unplugging or turning off office equipment when not in use. The post is also examining existing processes to identify more energy efficient ways to serve our various missions and mission partners. The next step is to utilize waste energy or to "re-purpose" energy. Boiler stack exhaust, building exhausts or other thermal energy streams can all be utilized for a secondary purpose. Co-generation recovers heat from the electricity generation process. The balance of energy needs then are reduced and can be met by renewable energy projects.

Net Zero Water

A Net Zero Water Installation limits use of potable fresh water then captures repurposes or recharges an equal to or greater amount of water it consumes. The net zero water strategy is of increasing importance since scarcity of clean potable water is quickly becoming a serious issue in many countries around the world. The continued draw-down of major aquifers results in significant problems for our future. Strategies such as harvesting rain water and recycling discharge water for reuse can eliminate the need for other water sources.

To achieve a net zero water installation, efforts begin with conservation followed by usage efficiency and improved integrity of distribution systems. Fort Detrick continually monitors and improves its water distribution system through leak detection programs to locate and repair issues quickly. Elimination of single-pass cooling systems and upgrading air scrubbers for the incinerator process also has greatly reduced water use at Fort Detrick. Water is repurposed by utilizing greywater generated from sources such as showers, sinks, laundries or cooling towers and by capturing water runoff for on-site use. Wastewater can be treated and recharged into groundwater aquifers.

Net Zero Waste

The approach to creating a Net Zero waste installation is similar to creating a Net Zero energy installation. The components of net zero solid waste start with reducing the amount of waste generated, re-purposing waste, maximizing recycling in the waste stream to reclaim recyclable and compostable materials, recovery to generate energy as a by-product of waste reduction, with disposal being non-existent.

Every day, more recycling strategies are developed moving beyond metals, paper and cardboard to include mattresses, glass, plastics, batteries, computer printers and motor oil. Fort Detrick has one of the best recycling programs in the Army, currently recycling 46 percent of its waste stream. The best strategy is to consider the waste stream when purchasing items, reduce the volume of packaging, reuse as much as possible, and recycle the rest. A true cradle-to-cradle strategy considers the end state at the time of purchase. A net zero waste strategy eliminates the need for landfills, protects human health, optimizes use of limited resources and keeps the environment clean.

If the community or members of the media desire to seek information on Fort Detrick's activities, they are encouraged to visit http://www.detrick.army.mil/, or contact the Garrison Public Affairs Office at (301) 619-2018.

Fort Detrick … A Sustainable Community of Excellence