

Environmental Impact Statement for Fort Bliss Energy, Water, and Solid Waste Sustainability Initiatives

Public Scoping Meetings

February 28-March 1, 2012





Fort Bliss Garrison Commander and EIS Lead Project Personnel

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Purpose of Today's Meeting

- Inform the public of the Army's intent to prepare an Environmental Impact Statement (EIS) for implementation of “Net Zero” Initiatives at Fort Bliss.
- Solicit input from the public on Fort Bliss pursuit of increased energy, water, and solid waste sustainability initiatives at Fort Bliss.
- Provide the public with an opportunity to ask questions about the project and to express any specific areas of comment or concerns with the proposal.

Agenda

- Overview of the Net Zero Initiative
- Fort Bliss's Role in Net Zero
- Purpose and Need
- Fort Bliss's Proposed Action
- Alternatives Considered
- Potential Environmental Impacts
- EIS Timeline
- Questions



Why Net Zero?

- Increase the Army and installation energy & water security.
- Reduce energy and water demand and solid waste generation.
- Army installations are required by Federal legislation and DoD / Army internal requirements to improve efficiencies in energy, water, and waste for the benefit of our current and future missions.
- Because increased conservation of critical resources **JUST MAKES SENSE**. It improves regional quality of life and supports local communities.



Purpose and Need for the Project

- **Purpose:** Implement Net Zero energy, water and solid waste sustainability goals at Fort Bliss to improve resource conservation, increase sustainability, and secure the Installation's critical missions moving into the future.
- **Need:** Meet and exceed legislative energy, water, and waste mandates; and achieve enhanced security, increased efficiency, reduced operating cost, and improved Installation sustainability, all while supporting the mission of Fort Bliss.



Net Zero Operating Definitions

- **Energy:** A Net Zero Energy Installation produces as much energy on site as it uses over the course of a year.
- **Water:** A Net Zero Water Installation limits consumption of freshwater resources and returns water back to the same watershed in a manner that does not reduce the quantity or quality of the groundwater and surface water resources of the region.
- **Waste:** A Net Zero Waste Installation reduces, re-uses, and recovers waste streams, converting them to resource values with zero landfill requirements over the course of a year.

Proposed Action

- The Proposed Action is to implement the Army's Net Zero waste, water, and energy goals at Fort Bliss. Fort Bliss would evaluate and implement where feasible:
 - (1) producing as much renewable energy on the Installation as it uses annually;
 - (2) limiting the consumption of freshwater resources; and
 - (3) reducing, reusing, and recovering waste streams

Alternatives

- Seven Alternatives and a No Action Alternative are being considered for evaluation in the EIS.
- Alternative 1 is the No Action Alternative
- Alternative 2 maximizes conservation practices to reduce resource consumption and waste generation to the maximum extent possible without infrastructure project improvements

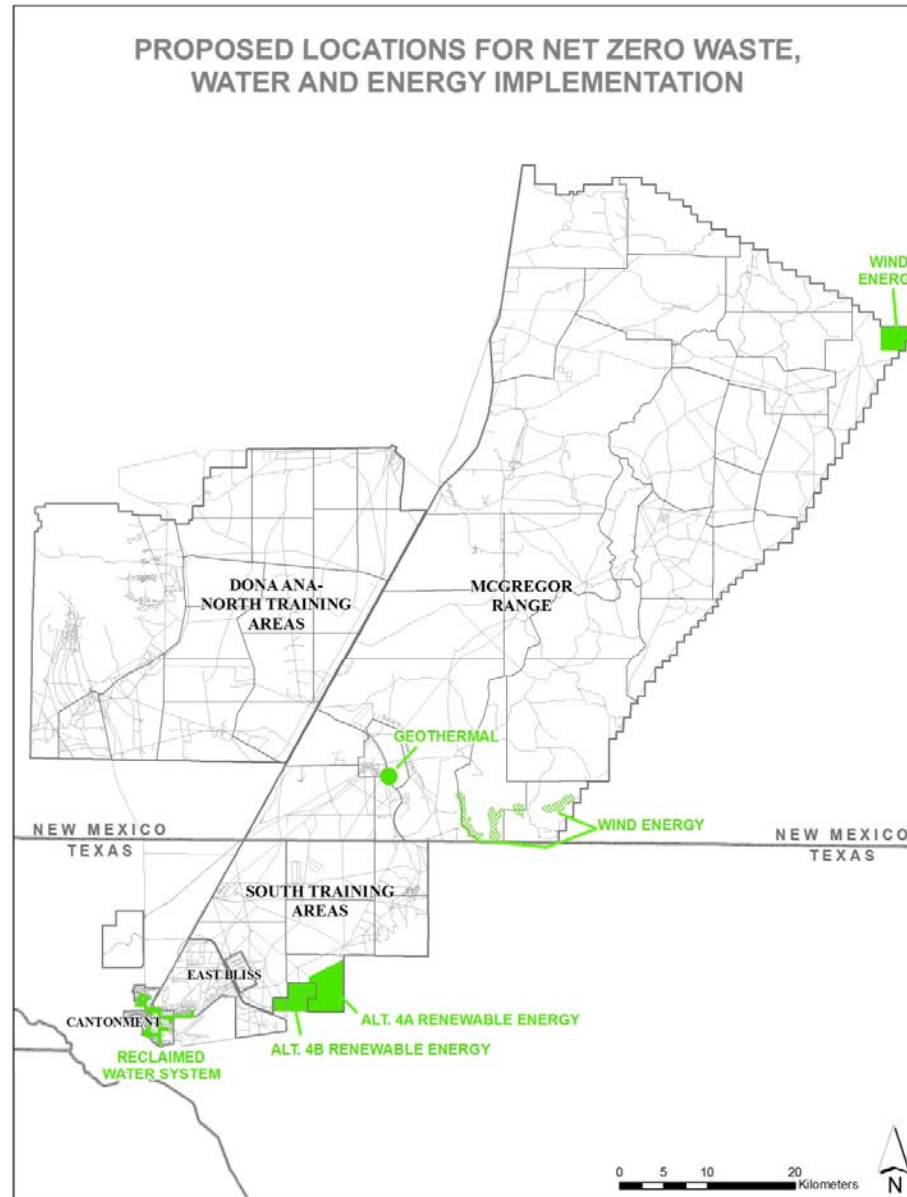


Alternatives

- Alternatives 3-7 will evaluate water conservation, waste reduction, and energy infrastructure.
- Alternative 8 is a programmatic alternative for future energy development projects that may support Fort Bliss Net Zero initiatives.
- The Army may elect to implement more than one alternative, or a combination of proposed alternatives to best implement Net Zero sustainability initiatives at Fort Bliss.

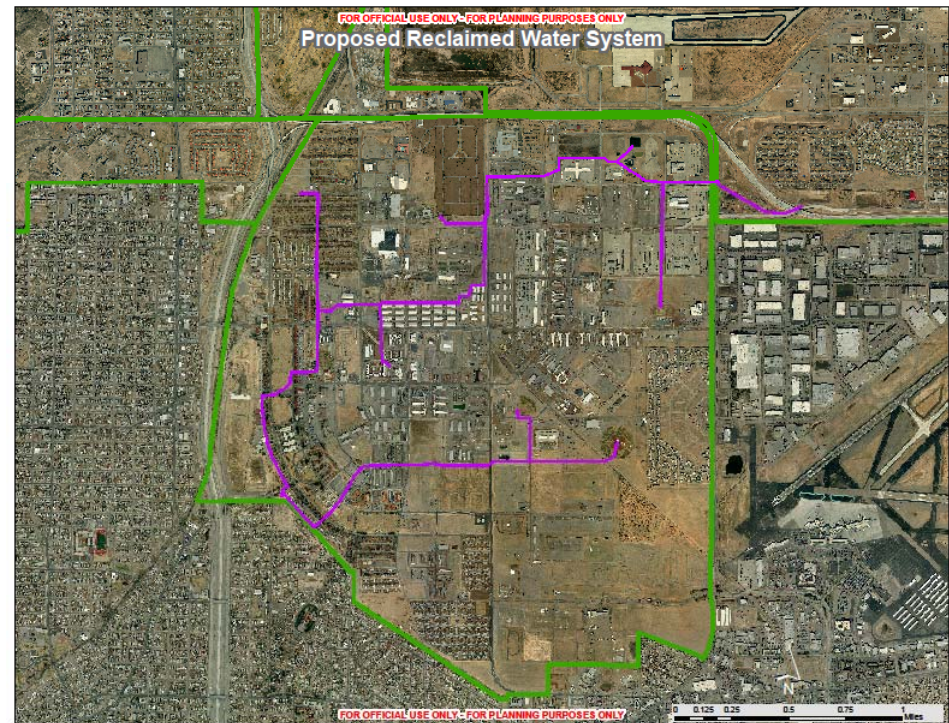


Proposed Project Locations



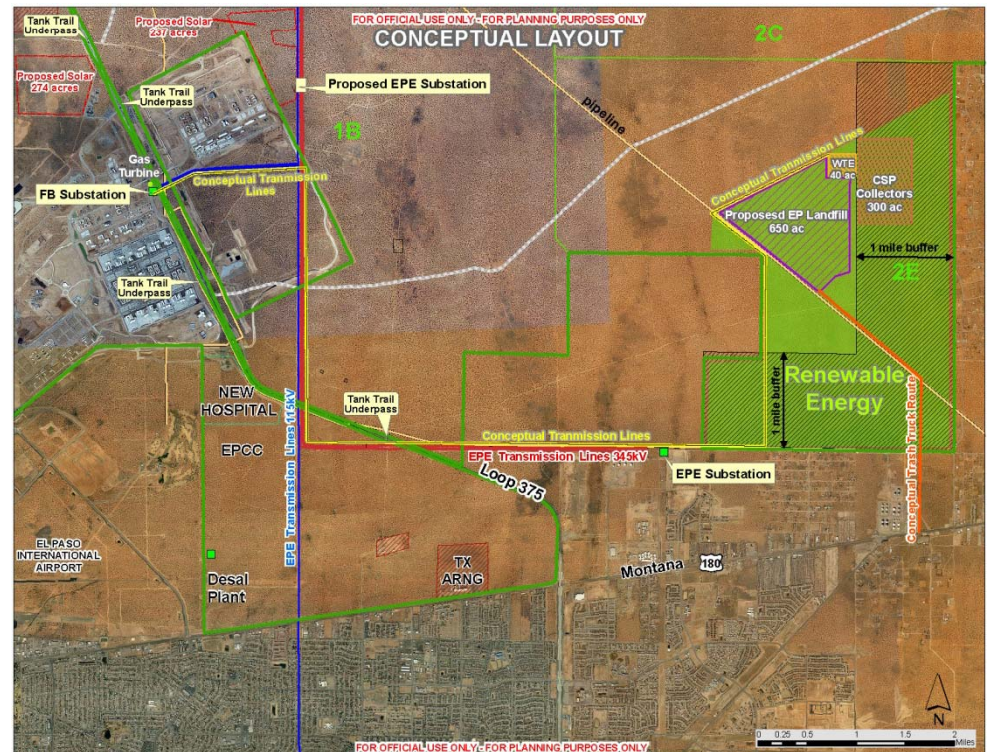
Alternative 3 - Construction of a Reclaimed Gray Water Pipeline on Fort Bliss

- A “purple” water pipeline system would be extended onto Fort Bliss from City of El Paso wastewater treatment plants.
- The reclaimed “gray” water would be used for landscape irrigation of parade grounds, parks, and other vegetated areas in the Main Cantonment.



Alternative 4 - Construction and Operation of a Waste-to-Energy (WTE) Plant

- Two site alternatives have been identified in and adjacent to the Bliss South Training Area.
- A WTE Plant will require utilization of municipal waste from the City of El Paso, delivered via collection trucks.
- 10-20 percent of the waste tonnage would become ash and disposed of in a landfill. This includes all non-combustible materials received.
- Emissions control equipment would be included as part of the WTE to control air emissions.



Alternative 5 - Development of Geothermal Energy and Hot Water Resources on Fort Bliss

- Construction and operation of a geothermal energy facility at Davis Dome (McGregor Range Camp)
- Possible construction and use of a concentrating solar power (CSP) system to support the geothermal resource.



Alternative 6 - Construction and Operation of Wind Energy Systems

- Placement of utility-scale wind turbines on the eastern margins of the Installation.
- Each wind turbine would require an approximately 50-acre footprint and would individually produce 1.5-3 MW of energy.



Alternative 7 - Development of Dry-cooled Concentrating Solar Power (CSP) Technology


- CSP systems, such as concentrating solar troughs (CST), would cover approximately 300 acres in the South Training Area
- The CSP system would be co-located near the WTE plant (Alternative 4).
- The CSP system would use a dry-cooling technology to conserve regional potable water supplies.



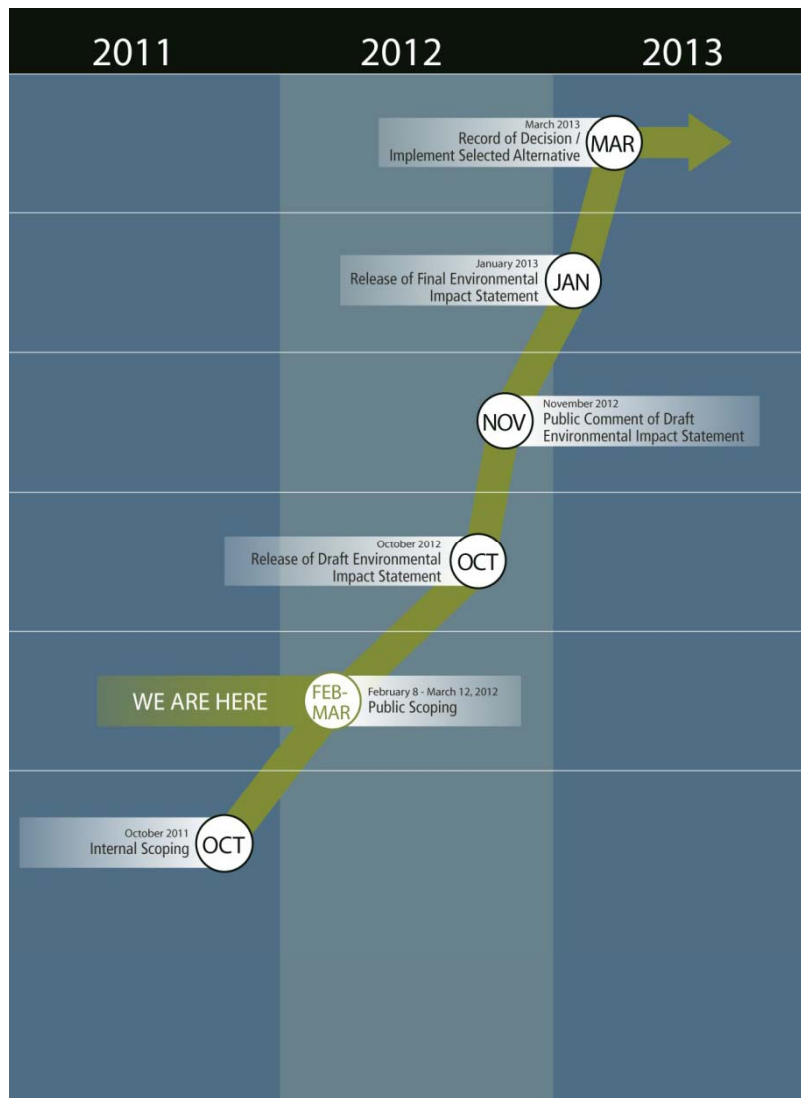
Alternative 8 - Implementation of Additional Renewable Energy Development within Future Compatible Net Zero Footprints

- Involves development of future geothermal, wind, solar or other renewable energy projects
- Would allow the Installation to adaptively select future compatible footprints and best technologies that are compatible with the installation mission and meet an environmental checklist for “tiering” and future and compatible site development
- The environmental screening criteria (checklist) would be developed and considered within the EIS to assess anticipated impacts and prescribe required management and consultation, as specific future projects are identified.

Potential Impacts of Renewable Technologies

	Air Quality	Air Space	Cultural Resources	Noise	Soils	Water Resources	Biological Resources	Socioeconomics	Energy Demand	Land Use	Hazardous Materials and Waste	Traffic and Transportation
Solar – CSP (Dry-Cooling)	X		X		X		X	X	X	X	X	
Geothermal	X		X		X	X		X	X	X		
Wind		X	X	X	X		X	X	X	X		
Waste-to-Energy	X	X	X		X	X	X	X	X	X	X	X
Water Reclamation					X	X	X	X	X	X		X

EIS Timeline



- Fort Bliss is at the beginning of the NEPA process (Public Scoping).
- The Scoping Period ends March 12, 2012.
- The Draft EIS is anticipated to be published in late September, 2012, in which the Army will solicit public comments for 45 days.
- The Final EIS will be prepared after comments have been considered and a Record of Decision issued.



Questions?