EQT Environmental Quality Technology

Sustainable Army Live-Fire Range Design and Maintenance (2.5.e)

The purpose of this fact sheet is to provide an overview of the four focus areas within the Environmental Quality Technology Program (EQT) requirement, "Sustainable Army Live-Fire Range Design and Maintenance (2.5.e)."

The focus areas of this program are:

- The Range Design Risk Assessment Model
- The Range Design Specifications Incorporating Environmental Compliance
- The Range Munitions Carrying Capacity Model
- Tools for Monitoring Range Access

The purpose of the Range Design Risk Assessment Model is to develop a matrix methodology that identifies environmental compliance issues and other risk factors related to ranges, and to assist range managers in planning for and designing new sustainable ranges and retrofitting existing ranges.

The purpose of the Range Design Specifications Incorporating Environmental Compliance is to identify range design elements that pose an environmental compliance risk, and develop improved range design elements to mitigate that risk.

Range Design Specifications Incorporating Environmental Compliance

Range design specifications may include guidance for:

- *Tank defilade positions*
- *Stationary and mover berm designs*
- *Low water crossing*
- *Range roads/trails design plans*
- *Guidance for range construction*
- *Guidance to mitigate environmental concerns during the range siting process*
- *Guidance and/or designs for mitigating dust from firing positions*

For more information

U.S. Army Environmental Command
Public Affairs Office
410-436-2556, fax 410-436-1693
e-mail: APGR-USAECPublicAffairsOffice@conus.army.mil
http://aec.army.mil

The purpose of the Range Munitions Carrying Capacity Model is to develop a munitions-based carrying capacity capability model for ranges. This model addresses maneuver impacts and predicts the cumulative effects of range operations in order to characterize the environmental risk associated with munitions use.

The Tools for Monitoring Range Access identify, evaluate, and document existing government and commercial surveillance/monitoring technologies for their applicability to range access security; provide recommendations to aid installations in acquiring the needed protection; and incorporate recommended technologies into standard range design criteria.

Three Tools for Monitoring Range Access

1. *Range Intrusion Risk Assessment (RIRA)* allows range managers to make an objective determination of the need to implement security measures at U.S. Army training facilities.

2. *Security Technology Decision Tree Tool (STDTT)* allows range managers to quickly identify the type of Intrusion Detection System (IDS) best suited for their needs based on site specific conditions.

3. *Training Land (TL)-See* allows range managers to use site-specific GIS data to position line-of-sight sensors, allowing range managers to more easily estimate the number of IDS sensors required and the best location for these sensors.

These tools will be available to all installations upon completion. They can easily be applied by installation personnel, provided the necessary computer hardware, software, and requisite GIS data are available.

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