

RECORD VERSION

STATEMENT BY

MAJOR GENERAL R. L. VAN ANTWERP  
ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT

HEADQUARTERS  
DEPARTMENT OF THE ARMY

BEFORE THE  
SUBCOMMITTEE ON READINESS AND MANAGEMENT SUPPORT  
OF THE  
COMMITTEE ON ARMED SERVICES  
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ON "ENCROACHMENT" ISSUES HAVING A POTENTIALLY ADVERSE  
IMPACT ON MILITARY READINESS

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Mr. Chairman and members of the Committee:

Thank you for providing the Army with the opportunity to present our concerns about what has become known as “encroachment” to our training installations, ranges and land. This is a challenging issue. The fact that we are discussing it today demonstrates our recognition that societal changes, demographics, and environmental issues are affecting our way of training soldiers. The Army is implementing new management approaches in order to sustain readiness. The Army is not seeking to avoid any responsibilities it has to the people of the United States. We are not seeking relief from compliance with environmental statutes. We will continue to do our best to ensure that our practices do not endanger the health or well being of any American.

Our essential training focuses on weapons firing and ground maneuver, to include those aspects of maneuver that include our Army aviation capabilities. To practice and maintain proficiency in both of those areas, we require maneuver land and a variety of fixed firing ranges for everything from individual small arms to large caliber crew served weapons. Our important training installations all include a range “complex” that supports both live weapons firing and maneuver.

We have expended, and continue to expend, a great deal of effort and resources on both our range operations and modernization and on the environmental compliance requirements associated with them. In maintaining areas for training, we have isolated them from development and created islands of biodiversity and havens for unique natural and cultural resources that are found in very few other locations. However, we would ask those who seek to limit our essential training because of the presence of those resources to recall that it was our training and management practices that permitted these islands to exist in the first place and to flourish now in an environment that includes training activities ranging from maneuver to live-fire.

It has been suggested that increased use of simulations can offset our reliance on live weapons firing and maneuver training. We have made a significant investment in simulations; however, because of the extreme rigors and demands of ground operations, live experiential training will remain central to our training strategies. Most of the Army's investment in training goes to Operating Tempo (OPTEMPO) and Flying Hour Program (FHP) accounts that resource live training, an investment of some \$8 billion per year.

We ask that you recognize the unique role of the Army and our sister Services within the Department of Defense. We carry out our training, not for profit or gain, but to ensure the readiness of our force. That readiness is critical to our ability to perform the missions assigned to us and to do so efficiently and with a minimum of casualties. We have learned hard lessons in the past when other priorities overshadowed our need to train young Americans to face the uncompromising conditions and challenges of war. Unlike some other federal agencies, the private sector cannot supplement the execution of our readiness requirements and missions.

As the Army continues its Transformation, we are mindful of the changing world and the imperative for the Army to remain a viable and effective part of the

Defense team, to maintain a focus on readiness through training despite the many competing interests.

The Army's primary encroachment concerns are urban sprawl, threatened and endangered species, and restrictions that impact our use of munitions.

Urban sprawl and unchecked residential and community growth may present conflicts with our neighbors over noise, dust, and other effects of Army training. It sets off, in some places, a competition for natural resources. When our installations were established, they generally were in rural areas, remote and isolated from populations. That has changed. The sum effect has been that Army installations, once far from public view, are now often in the midst of large urban areas. Our training practices bring with them noise, dust, the expenditure of munitions, and ground activities that can be viewed as a nuisance and annoyance to those who have become our neighbors.

The management of endangered species in accordance with existing regulations has been, and continues to be, a great challenge. As a land based force, we need land to train. Our important training installations are large and are needed to accommodate air and ground maneuver using our increasingly mobile weapons systems. Endangered species regulations have required us to review our training activities to ensure that they do not jeopardize the continued existence of an endangered or threatened species. In some cases, we must modify our training activities to meet that requirement. As the number of listed plants and animals increases, the amount of land available to us for unmodified training activities may decrease further.

Our concerns about munitions focus on the future. At one of our ranges, the Army National Guard's Massachusetts Military Reservation (MMR), we have encountered regulatory actions that impacted our operations. For the first time, the EPA has administratively stopped our live-fire weapons training based on

their authority to abate imminent health and environmental hazards. Given the fact that our units employ a large number and type of weapons, and that we train with those weapons on literally thousands of ranges, the potential for cessation of live-fire training is of great concern to us. The potential impact of further administrative “cease fire” orders cannot be measured, other than to say that major training and training readiness investments would be affected. The regulation of munitions is a complex issue that requires deliberate measures in the areas of environmental research and development, risk assessment, range design, and range management. Unilateral orders to stop firing while we investigate these challenging issues will impact readiness. Although statutory and regulatory provisions allow for elevation of disputes between Executive Branch agencies where an administrative action affects training or a readiness activity in a manner that has or would have a significant adverse effect on military readiness, these extraordinary measures have been rarely invoked. We will work with Congress and the EPA to reduce uncertainty and increase flexibility in laws and regulations so as to balance the needs of national security and the environment.

Our approach to encroachment contains three key elements. First, we will respond to concerns at our closed and transferring ranges and perform the required response actions necessary to protect public health and safety. Second, we will introduce a more sophisticated, integrated approach to range management that we call Sustainable Range Management. This approach will allow us to better manage our lands and maximize their use for military purposes. And third, after appropriate review and discussion with affected parties, we may seek legislative clarification to achieve reasonable application of statutes as they impact our active ranges and live training. We believe Congress intended to afford us an opportunity to implement our management programs and to take the appropriate corrective action consistent with national defense needs and public health considerations. We believe it is unreasonable to stop vital readiness training just because issues are technically complex and require time to

understand and implement effective responses. We will work with the regulatory community to engage in conflict resolution before resorting to unilateral administrative orders.

We are providing you with written testimony that expands on the following issues; our need for ranges and training land to support our live training, the evolving challenge of encroachment, examples of some of those challenges, what we are doing to meet the challenge, and what we would ask of the Congress in this area. We have included some success stories such as Fort Bragg's leveraging of public and private resources by working with the U.S. Fish and Wildlife Service and The Nature Conservancy to acquire conservation easements from willing sellers off the installation. These easements allow for enhanced management of the red-cockaded woodpecker, an endangered species. The result is that Fort Bragg is able to lessen the restrictions on training while enabling the red-cockaded woodpecker to move closer to recovery. Expanding these partnerships, purchasing lands, securing easements, and transferring development rights will go a long way toward resolving our training encroachment problems.

## MISSION NEEDS – WHY LIVE TRAINING AND TESTING IS IMPORTANT TO READINESS

The primary mission of the United States (U.S.) Army is to fight and win in armed conflict. Training soldiers, leaders, and units is the vital activity that ensures the readiness of the Army to accomplish this mission. To be effective, training must provide soldiers the opportunities to practice their skills in combat-like conditions. These conditions must be realistic, as well as physically and mentally challenging. The Army's training ranges, as well as those of our sister services, provide training opportunities to develop and improve a soldier's proficiency, competence, and confidence in the use of sophisticated weapons systems. The fact that the Army's mission increasingly includes peacekeeping operations does not reduce the need for combat training. In fact, "policing" requires soldiers to be highly proficient with pinpoint target identification and engagement procedures. This can only be accomplished by practicing with the actual weapon in specifically designed training exercises on our ranges and training areas dedicated to that purpose. Specialized peacekeeping training, however, cannot replace the basic emphasis on combat skills. Overwhelming evidence from the Army's Combat Training Centers proves that the teambuilding and weapons discipline skills developed for the Army's war-fighting role are critical to success during operations other than war. The bottom line is that the Army's 21<sup>st</sup> century missions require at least as much live training as did past missions.

The amount of live-fire training in the Army cannot be reduced without serious degradation to readiness and the concurrent increased risk to American soldiers. The amount of live-fire training that individual soldiers and units are required to complete is based on the common sense premise that certain skills are perishable and must be periodically exercised. In other words, to be effective with a certain weapon system, the soldier must shoot a certain number of times. The Army has established standards that identify the minimum number of times

and specific firing events that a soldier must train to achieve a given level of proficiency. The Army currently has difficulty meeting these minimum standards because of limited facilities, funding, and time. Many ranges currently operate at maximum capacity so that units can meet the minimum standards. Any further limitation on these training facilities would inevitably cause a reduction in live-fire training below that needed by soldiers to remain minimally proficient.

Some see the recent development of realistic computer games, which the Army calls simulations and simulators, as a viable substitute to live training. It is true that these technologies offer exciting new ways to train some aspects of modern soldiering; however, these virtual tools can only be viewed as an addition to live weapons firing and maneuver; never a replacement. To rely solely on simulations would be an injustice to the soldiers whom the Army has promised to train, and an abrogation of the responsibility that the Army is legally bound to perform.

Live training is critical to assessing the effectiveness and capability of not only the people but also the actual equipment that the Army depends on. The only way to ensure that a piece of equipment will be ready for battle is to put it through rigorous use beforehand. Weapons systems and vehicles, like the soldiers who count on them, must be tested and refined over and over to ensure quality and dependability.

## THE EVOLUTION OF ARMY RANGES AND EMERGENCE OF “ENCROACHMENT”

Many Army ranges have been used for training with a wide variety of weapons systems for well over 100 years. The widely varied, historical usage of Army ranges has created environmental issues on these lands that leave them susceptible to enforcement actions based on an increasing number of health and safety concerns and increasing application, of environmental statutes. A number



of these statutes contain enforcement triggers/thresholds that are based on the assessment of the environmental regulatory authority as to whether or not a given condition or activity presents a “potential” risk or “imminent” hazard to human health or natural resources.

For most of its history, the U.S. had no environmental legislation. Federal regulation to protect human health or the environment was unknown until the mid-20<sup>th</sup> century. During the 1950s and 60s, state and local governments had the responsibility for environmental problems. Only over the last 30 years has the U.S. begun to understand and regulate the potential environmental impacts of a wide variety of civil and industrial practices. During the 1970s, federal legislation established rules for national environmental protection. Examples include the National Environmental Policy Act (NEPA), Endangered Species Act (ESA), the Clean Air Act (CAA), Clean Water Act (CWA), and the Resource Conservation and Recovery Act of 1976 (RCRA). These laws have improved the quality of life for all Americans, including soldiers and their families.

In certain instances, some of these regulations were designed to minimize human health and environmental impacts associated with typical industrial operations (i.e., manufacturing, mining, refineries). Also during the 1970s, courts and Congress began granting citizens authority to challenge decisions involving environmental laws and to pressure agencies to implement directives. Liability for environmental harm was expanded in 1980 with the enactment of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). In 1992, Congress amended the Resource Conservation and Recovery Act (RCRA) to clarify that Federal agencies may be penalized for failure to comply with its provisions.

The Army has implemented programs to ensure compliance with these statutes. While we have been successful at managing endangered species, some of these actions have come at the expense of training capabilities at some

installations. The environmental compliance programs on the ranges and training land of Fort Hood, Texas are an example of how such programs have restricted training capabilities. Fort Hood contains nearly 185,000 acres of ranges and training areas. Erosion control practices designed for compliance with the CWA prohibit digging on approximately 128,000 acres (69%) of training land. This means no digging for vehicle fighting positions, survivability positions, maneuver obstacles, or individual fighting positions, all of which are required to meet doctrinal training standards for many units on Fort Hood. The U.S. Fish and Wildlife Service's (FWS) biological opinion, issued under the ESA for both the Golden Cheeked Warbler and the Black Capped Vireo, restricts training on over 74,000 acres (38%) of training land. These restrictions include no digging, no tree or brush cutting, and no "habitat destruction" throughout the year on the entire core and non-core area. During March through August, vehicle and dismounted maneuver training is restricted to established trails, and halts in restricted areas are limited to two hours in designated endangered species "core areas" (55,000 acres of the 74,000 acres are designated "core areas."). Artillery firing, smoke generation, and chemical (riot control) grenades are prohibited within 100 meters of the boundaries of the designated "core areas." Use of camouflage netting and bivouac are prohibited across the entire "core area" during these months. Fort Hood's training areas contain over 2,400 (1,100 have been surveyed) archeological and culturally significant sites where digging is prohibited. The SHPO wishes to stop maneuver training on these sites. To comply with the CAA, there is no smoke, flare, chemical grenade, or pyrotechnic use allowed on over 46,000 acres (25%) of training land. Due to noise restrictions, there is no Multiple Launch Rocket System or artillery fire allowed on over 1000 acres of land. These restrictions include only those driven by well-established and broadly applied environmental requirements. While some of these restrictions overlap on the same training areas, only about 17% of Fort Hood training lands are available for training without restriction.

The recent cessation of live-fire training at Massachusetts Military Reservation (MMR) leaves the Army very concerned that similar restrictions could occur at major live-fire training facilities such as Fort Hood. If applied to a major training installation, such as Fort Hood, the results could be catastrophic from both a fiscal and a readiness perspective. Army units at Fort Hood were authorized to fire approximately 35.4 million rounds of ammunition in FY01. Fort Hood contains some 33 small arms ranges, 24 major weapons ranges, and a number of separate field artillery and mortar firing points. The discretionary enforcement authorities granted under current environmental statutes leave many of these critical training assets susceptible to restrictions to training capacity. If applied, the Army would be forced to relocate training to other locations, construct new adequate ranges at those locations, and deploy Fort Hood soldiers to train off-site. These “work arounds” would be in addition to addressing the compliance requirements, which at MMR have cost some \$60 million on what is a relatively small (22,000 acres) installation. If applied to an installation such as Fort Hood, the impacts on the Army’s budget, training efficiency, and soldier morale would be catastrophic.

Historically, the Army has chosen remote locations for its training land. Until the last 30 years, there was little residential or commercial development near these facilities and, as such, the public’s awareness of live training activities was minimal. As the population in and around many U.S. cities has grown, ranges and training lands have remained insulated from the urban development (sprawl) that covered much of the landscape surrounding many Army installations. Ranges and training lands became “islands of biodiversity” and their value as natural resources (green spaces) increased. As population centers expanded to or near the installation boundary and residential areas grew in more remote, previously rural setting, citizens became more aware of training activities. The demographics of the residents near Army installations have also changed. The affluence born of the recent economic expansion has grown new suburban communities near Army installations. These new residents are less

familiar with the sights and sounds of range and training activities. The impressions they formed of Army training were based on noise, smoke, a lack of access to what had become the most pristine natural landscapes in their regions and did not include an understanding of the benefits that Army training provides. In general, the U.S. citizenry is less likely to have personal military experience than they had 30 years ago.

The public also perceives a reduced national security threat since the fall of the Soviet Union, which further reduces the perceived value of live-fire testing and training activities. In fact, the rate of Army deployments is at an all time high. More soldiers are consistently deployed (including the Army National Guard and Reserve) to more locations, more frequently, than ever before. At the same time, the Army's weapons systems and war fighting doctrine have increased the demand for training and testing ranges.

The effects of these encroachment factors are intensified by well-organized communities committed to the elimination of the military's impact on them. The effectiveness of these communities is enhanced by a system of environmental regulation that allows for discretionary enforcement and citizens' authority to challenge regulatory decisions, resulting in pressure on regulators to interpret environmental requirements most conservatively to avoid speculative effects or risk of litigation.

As the Army tries to "balance" its testing and training mission with its requirement to comply with environmental regulations and its desire to act as good stewards of the natural resources under our authority, we are pushing already severely constrained resources to the breaking point.

## EFFECTS OF THE SENIOR READINESS OVERSIGHT COUNCIL (SROC) KEY ENCROACHMENT CATEGORIES ON ARMY RANGES

Today, we will discuss in some detail three of the areas raised by the SROC that impact the Army training most significantly. These are: Urban Growth; the ESA/Critical Habitat; and Unexploded Ordnance & Constituents. The Army's interests and concerns in other SROC areas of concern such as airborne noise and air quality are articulated in the oral and written testimony of our sister Services.

### URBAN GROWTH:

Most of the Army's major training installations were established during the World Wars, and they were both remote and isolated from populations. However, since then, many installations have experienced considerable urban growth around their boundaries and are now often in the midst of large urban areas. As the Army prepares for its mission by training and testing, we create noise, dust, and ground disturbances that can be viewed as a nuisance to those who have become our neighbors.

The challenge to the Army in maintaining its readiness to defend America's essential interests is to continue to train effectively in the context of these changing demographic conditions. Clearly, the Army is limited in its ability to acquire new land. Cost and the general public concerns about urbanization's effects on remaining natural and agricultural land make acquisition problematic. However, the Army's emerging weapons systems require more space to effectively exercise their capabilities within current doctrinal standards. This reduces our flexibility to use what land we have.

## THREATENED & ENDANGERED (T&E) SPECIES AND HABITAT

As we focus our training missions and transformation on specific installations, we find that endangered species regulations already limit the use of a significant portion of the landscape. Army lands host 153 federally listed species on 94 installations, and 12 installations have lands designated as critical habitat (four of these habitats are as yet unoccupied by the species for which designated). As the habitat of listed species is destroyed by development of lands adjacent to our installations, Army training activities on the habitat remaining are being restricted.

Let me offer a few examples of challenges we face with regard to T&E management.

The Red-Cockaded Woodpecker in the Southeast U.S. affects four major training installations (Forts Bragg, NC; Stewart, GA; Benning, GA; Polk, LA) and two major service school training bases (Forts Jackson, SC; and Gordon, GA). This single species has survived because of the havens provided by our installations' training land and ranges, which have been insulated from development and forestry practices in the region. The Army spends the resources necessary to help the recovery of the species while developers do not have to make similar commitments of resources.

The many listed plants in Hawaii and the complexities of complying with the ESA prevented the use of a valuable multi-purpose range built in 1988. We have also voluntarily closed our only large caliber firing range on Oahu – Makua Valley – while we review both NEPA and ESA management plans and agreements.

## UNEXPLODED ORDNANCE AND OTHER CONSTITUENTS

When military munitions do not function as intended, or fully detonate, they create Unexploded Ordnance (UXO). Many challenges arise if and when the UXO is found on land to be used for something other than military testing or training. Land no longer used for military testing and training includes former ranges being transferred to the public under the Base Realignment and Closure (BRAC) program, or ranges previously transferred out of military control and now being addressed under the Formerly Used Defense Sites (FUDS). When found on active and inactive military ranges, UXO poses fewer explosives safety hazards, since the Army still controls these lands and restricts access to the public.

When military munitions do function as intended, trace quantities of explosives constituents may be released into the air, soil, and water at the firing point and in the impact area of the range. These explosives constituents can pose an environmental challenge if present in large enough quantities, if the specific geophysical conditions are conducive to transport to the water sources, and if the environmental regulations at that location restrict the particular constituents being emitted. Range impact areas also become littered with metal scrap from the exploded munitions items.

The use of environmental statutes, such as CERCLA, RCRA, CWA, and the Safe Drinking Water Act (SDWA), to require investigation and cleanup of UXO and other constituents on active ranges could impact the Army's ability to fulfill its national security mission by causing the shut down or disruption of live-fire training. That vulnerability extends not only to the Army, but also to regulators themselves, who are vulnerable to citizen suits for not vigorously applying these and other environmental laws to unexploded ordnance and constituents on active ranges. While military activities are subject to regulations in the same manner and to the same extent as they apply to private activities, it

is also clear that no private entity is responsible for national security or engages in the uniquely military activities necessary to support a standing Army that deploys worldwide.

In 1997, EPA Region I issued an Administrative Order (AO) under the Safe Drinking Water Act prohibiting the use of lead ammunition, propellants, explosives, and demolition materials at MMR. This action essentially shut down live-fire training at MMR except for use of plastic, frangible, and green ammunition. In October 1999, the Governor of Massachusetts issued an Executive Order designating the 15,000-acre training area as a Wildlife Refuge and Water Protection Area anticipating state legislation to implement the plan. Legislation did not pass, but we anticipate it will be reintroduced this year. Both the Executive Order and proposed legislation established a state commission, with no military representation, to determine what military training would be compatible with the area's new designation.

In January 2000, EPA Region I ordered a study to determine the feasibility of remediating UXO on the range impact area, stating that *all UXO is a potential threat to groundwater*. Although Royal Demolition Explosive (RDX) has been detected in the groundwater under the MMR impact area, there is no evidence that current drinking water supplies is affected. A fourth AO from EPA Region I directs the National Guard to employ a controlled detonation chamber, instead of detonation in place, to dispose of UXO or other munitions that have previously been disposed of by burial on the impact area.

To date, a couple of other Army installations have identified indications of contamination in the soil or groundwater stemming from possible munitions' constituents at active ranges. These installations include Fort Lewis, Washington and Aberdeen Proving Ground, Maryland. Although these incidents of constituent presence have not been significant enough to cause regulators to



take action, there is concern that EPA actions at MMR could set a precedent for the agency to take similar steps elsewhere causing a cessation of critical training.

EPA's interpretation of the statutory requirements, the precedents being set by both State and federal agencies with respect to munitions and UXO on active ranges, and the discovery of RDX in the sole source aquifer at MMR increase the Army's vulnerabilities in this area and present a broad risk to live-fire training and testing. This applies to installations located above sole source aquifers as well as installations located above any groundwater sources that regulators believe could be a current or future drinking water source.

#### THE ARMY'S ACTIONS:

The Army's overall approach to range sustainability has three broad components. The first of these is Closed and Transferring Range response that is addressed later in this testimony. The second is the implementation of Sustainable Range Management. The last is Legislative Clarification that will be discussed at the end of this testimony.

#### SUSTAINABLE RANGE MANAGEMENT (SRM)

The creation of a Sustainable Range Management Program to integrate environmental compliance and stewardship, facilities management, and training management on ranges and training land is our primary initiative to meet the challenges of encroachment.

The Army is improving the way in which it designs, manages, and uses its ranges. This effort, which we call Sustainable Range Management, will help the Army maximize the capability, availability, and accessibility of its ranges and training land to meet doctrinal training requirements needed to support its Title 10 mission and ensure a trained and ready force.

The Army's sustainable range management effort is based upon three tenets: (1) Information Dominance: ensuring the Army has the most current and best information related to the operational and environmental characteristics of its ranges; (2) Integrated Management: ensuring that the major management functions that directly affect ranges, operations/training, facilities management, and environmental management are integrated to support the training mission; and (3) Outreach: ensuring that we articulate the Army's requirement for live-fire training to support national security and improving our understanding of the public's concern over the potential impacts of the live-fire training. The Army's current sustainable range management effort is broad and complex, and has as its basis the development of a comprehensive sustainable range management plan that we believe will ensure our ability to maintain and sustain our ranges and training lands well into the 21<sup>st</sup> century.

The Army has just completed the first phase of the plan, which identifies shortfalls (gaps) in current functions, policies, and procedures that could impede implementation of sustainable range management across all levels of the Army, from Headquarters, Department of the Army (HQDA) down to the over 400 installations with range assets. Doctrinally based core range requirements; those related to requirements for modernization of range facilities; services to support range operations; and maintenance requirements were analyzed against encroachment factors to gauge our vulnerability to external effects that will preclude our ability to support mission training requirements on our ranges. Based on that analysis, the Army has developed goals and objectives for sustainable range management and is currently drafting measures of merit for monitoring their effectiveness upon implementation. These goals and objectives for sustainable range management build upon our doctrinally based core range requirements and integrate them with mechanisms to minimize encroachment and the impacts of encroachment, reduce environmental liability through sound environmental stewardship and compliance, and provide outreach to the public.

The goals and objectives form the basis for our comprehensive sustainable range management plan, which will evolve into a new Army training regulation.

As part of this effort, the Army is developing policies and procedures to correct the shortfalls identified during our initial analysis. We are developing integrated management strategies at the HQDA, Major Army Command, and installation levels to cut across functional lines in order to support the live-fire training mission and ensure our range capability into the future. Because Army ranges are a combination of training infrastructure, real property assets, and environmental resources, the integration of those management functions is vital to the success of this approach. To oversee this integrated approach and the comprehensive sustainable range management plan, the Army created the Army Range Sustainment Integration Council (ARSIC) in June 2000. The ARSIC is a HQDA level Council of Colonels that acts as an integration process team to support sustainable range management by developing recommendations for integrated policy, positions, and action plans.

The Army's ability to implement sustainable range management depends not only on its ability to meld the three management programs: training, facilities, and environment into a cohesive whole, but also on its ability to maintain accurate and up-to-date information and data related to the operational and environmental characteristics of our ranges, as well as the impact of munitions use on the environment. As part of this effort, HQDA has initiated a worldwide inventory of its active and inactive ranges. This inventory will provide a "ground-truth" baseline of the Army's extensive range infrastructure and provide the foundation for the comprehensive plan

Sustainable Range Management will rely on the effective integration of the lessons learned, and varied environmental compliance programs and practices currently in place within the Army. Some examples of these follow.

## LESSONS LEARNED AND COMPLIANCE PRACTICES FOR URBAN GROWTH

One of the most successful approaches to managing urban growth is the Joint Land Use Study (JLUS) program within the Office of the Secretary of Defense (OSD). This community and economic development program provides resources to communities, who, in conjunction with neighboring military installations, agree to undertake joint regional planning. Resources provide planning expertise. The result is a joint land use plan that provides optimal “zoning” recommendations to reduce civil-military friction resulting from urban growth.

Another Army initiative is the encouragement of land ownership partnerships with conservation groups with the objective of creating “buffers” around installations that will prevent development and fence line encroachment.

An excellent example of the creation of buffers is our Private Lands Initiative at Fort Bragg. In this initiative, the Army is partnering with The Nature Conservancy to develop buffers adjacent to the installation and training areas. While we may not need to “own” more land, it is clear that the Army must have access to more land.

## LESSONS LEARNED AND COMPLIANCE PRACTICES FOR T&E SPECIES

HQDA has initiated a series of briefings and information meetings with FWS to better inform them about mission requirements and better understand FWS T&E species conservation objectives. Army policy states that ESA

compliance requirements are "must fund." Endangered Species Management Plans and their implementation constitute the major focus of funding for ESA compliance requirements. The Army has completed endangered species surveys for 71% of its installations. The Army has initiated several studies on Species at Risk in order to conserve them before they require listing. Four Army employees serve on FWS Recovery Teams. New Army policy will enable installations to partner with neighbors for the acquisition of conservation easements off of the installation to meet installation management objectives; however, funds have not yet been programmed to support this initiative. Additionally, the Army and other military services are exploring how Sikes Act Integrated Natural Resource Management Plans (INRMP) might qualify as "special management" schemes such that installations with such plans would not require designation of critical habitat.

At Fort Bragg, we are leveraging public and private resources by working with the FWS and The Nature Conservancy to acquire conservation easements from willing sellers off the installation. These easements allow for enhanced management of the red-cockaded woodpecker, an endangered species. The result is that Fort Bragg is able to lessen the restrictions on training while enabling the red-cockaded woodpecker to move closer to recovery.

## LESSONS LEARNED AND COMPLIANCE PRACTICES FOR UXO

It is essential that we respond to all UXO on our closed, transferred, and transferring ranges thus demonstrating to the public that the Army is accountable for its actions and will not knowingly harm the public or the environment.

A first step in accomplishing this was the completion of Phase I of the Army Range Inventory. When completed, the Army Range Inventory will collect key information about active and inactive (A/I) ranges and closed, transferred, and transferring (CTT) ranges. Phase I was a survey data call to all Army Major

Commands requesting basic information (e.g., location, acreage, munitions fired) about all current and former ranges. It is being followed by field visits executed by the Corps of Engineers for Closed, Transferring, and Transferred (CTT) ranges, and by the Geographical Information Systems (GIS) Regional Support Centers under the Army's Integrated Training Area Management Program, for Active/Inactive (A/I) ranges. Phase I gave us a good estimate of the total amount of acreage for our ranges and some information on munitions expenditures. Completion of the follow-on phases of the inventory will provide a clearer picture of the Army's current range assets as well as a listing of former ranges. The complete inventory will help the Army prioritize and program for response actions at former ranges and develop sound active range management programs.

Proactive approaches the Army has taken to ensure the continued use of Army ranges include finalizing Army guidance for implementation of Department of Defense Directives (DODD) 4715.11 and 12, "Environmental and Explosives Safety Management on Department of Defense Active and Inactive Ranges Within/Outside the United States," promulgated in August 1999, and establishing the Range Sustainment General Officer Steering Committee (GOSC), chaired by the Vice Chief of Staff. The Army also founded the Army Range Sustainment Integration Council (ARSIC), a Council of Colonels, to work and integrate solutions to range and munitions issues across operational, environmental, and installation management functional areas. This group is the proponent for the Army's emerging Sustainable Range Management Program.

Army leads the Office of the Secretary of Defense's Operational and Environmental Executive Steering Committee for Munitions (OEESCM), which was established to identify and address environmental, operational and explosives safety issues throughout the munitions lifecycle. The OEESCM, consisting of operator and environmental representatives from all the Services, as well as many other DoD organizations, has formulated a Munitions Action Plan (MAP). The MAP establishes an overall framework that identifies and

defines significant initiatives that will improve DoD's practices and minimize environmental impacts across the full spectrum of the munitions life cycle.

The OEESCM created a work group to establish policy and guidance for the management of munitions scrap metal found on ranges. The final draft policy is in staffing and the implementing guidance document has been started. The OEESCM Range Response Subcommittee, which has spent the last two years working with EPA, States, and other stakeholders to develop a Range Rule, is working to publish a DoD Directive that builds on that earlier effort.

As part of its outreach efforts, MMR is implementing a UXO Safety Education program for residents on and around the Reservation. The program includes educational videos, handouts, presentations, and a website all developed with input and approval from the surrounding community. The intent of the program is to educate the community, especially young children, on the hazards of UXO and what to do if they think they have encountered UXO.

A key requirement to address potential encroachment is to develop and use the best information to support management and decision-making. The Army is looking into what is being emitted when munitions are fired, how munitions constituents behave when they are in the environment, what happens to UXO on the ranges, and the current conditions on our active ranges.

The Army's Range XXI program is beginning to answer these questions through a number of forward-looking environmental projects designed to support training and testing operations. It is planned and managed by a partnership between the Army's Operators, Materiel Developers, and Environmental, Safety, and Occupational Health professionals.

Range XXI's greatest success to date is the Green Ammunition initiative. Green ammunition contains lead-free bullets and uses less hazardous material in

the manufacturing process. Green ammunition is a replacement for the standard service round and is an excellent example of the Army's proactive, integrated approach to managing environmental issues on Army ranges. Lead in ammunition projectiles can accumulate and concentrate in the soil in and around the target areas on our ranges, and this lead can migrate in certain types of soil. The first of this new ammunition is the 5.56 mm used in the M-16 family of rifles and the Squad Automatic Weapon. The formal Engineering Change Proposal was approved in March 2000, and the Army plans to produce 50 million rounds in this fiscal year. This Green Ammunition has enabled the National Guard units at MMR to resume the individual marksmanship training that is a key element of their readiness posture.

Another significant Range XXI effort is the ongoing Air Emissions Management Program. The objective of this program is to identify the true environmental impacts of smoke, pyrotechnics, and high explosives during both training and combat operations. The Army Environmental Center, in cooperation with the Center for Health Promotion and Preventive Medicine, is collecting this essential data.

The Army will be performing a number of regional studies to assess the environmental conditions of a number of its ranges to begin to understand the degree of contamination, if any, from its live-fire training activities. It is also evaluating the adequacy of the available data and scientific knowledge of explosives compounds to guide future Research, Development, Test & Evaluation (RDT&E) and data gathering efforts. Other initiatives include designing small arms ranges to minimize erosion, employing shock absorbing concrete to provide reusable and safe backstops, and utilizing dust control technologies on tank trails and helicopter hover pads to reduce turbine engine maintenance costs.



The Army's Research, Development, Test & Evaluation (RDT&E) program is addressing detection and remediation of UXO, the fate and effects of explosives, and identification of less toxic replacements for explosives.

The detection and remediation of UXO is one of the Army's most pressing environmental cleanup problems. The UXO characterization and remediation activities conducted at Army sites using currently available technology is extremely expensive and often yields unsatisfactory results, due mainly to the inability to discriminate between UXO and non-hazardous items. Field experience indicates that the overwhelming majority of objects excavated in the course of a UXO remediation are found to be non-hazardous items. Advanced technology offers the potential to significantly reduce the Department's liability and safely and effectively cleanup land so it may be safely used for other activities.

The principal goal of the UXO remediation technology development effort is to produce more effective and efficient processes and procedures for reliable and cost effective environmental remediation. These technologies are currently not available in the commercial sector. Although almost all UXO remediation is done by contract to the commercial sector, that commercial sector does not have the resources required to develop the sophisticated technology needed to effectively remediate sites containing UXO. Without Army and DoD-wide investments, Army will not see significant advances.

MMR has afforded the Army a unique opportunity to analyze our past practices and to understand what needs to be done differently in the future. In order to maintain effective sustainable military operations and training, we must have community acceptance and support for military activities, including those military activities that affect public health and the environment. Environmental problems on our installations are problems for the entire surrounding community. Information on the conditions at our installations is

readily available to the public and many of these people are technical experts and many wish to use this information to support anti-military objectives.

MMR had to change to address earlier community concerns. They began involving the entire community, not just the vocal critics, in decision-making at the earliest possible moment. All technical and training programs integrated a community outreach program component. They came to realize that the best technical solution might not always be the best community solution. They saw that additional staff with training in mediation, relationship-building, and outrage management was essential, and that information dominance was essential. However, a disturbing aspect of this collaboration is the expectation on the part of local citizens that they should have veto authority of individual training events or even tasks. This expectation is without sound basis in either environmental risk management or military training doctrine.

## HOW CONGRESS CAN HELP THE ARMY WITH THE RANGE ENCROACHMENT ISSUE

### SUPPORT AND RESOURCE THE IMPLEMENTATION OF THE ARMY'S SUSTAINABLE RANGE MANAGEMENT PROGRAM.

SRM is the foundation for sustaining live training and the environment on our ranges. As we have in the past, we will continue to improve range operations, range modernization, state of the art land management, research on munitions effects and UXO management, and public outreach. Although final funding levels have not yet been established, we ask Congress to support this important program.

SUPPORT AND FOSTER COOPERATION AMONG REGULATORS AND THE MILITARY IN WAYS THAT EMPHASIZE THE NEED TO BALANCE MILITARY READINESS CONCERNS AND ENVIRONMENTAL REGULATION.

The Army believes that Congress should continue to recognize that Army readiness is a positive societal good and a legal mandate. Defense of our nation is an important requirement that benefits all citizens. I believe there are ways to balance the needs of the military with the needs of the environment. Just as our Nation needs a well-trained military force, it also needs a healthy environment. In light of the Secretary's current strategic review, it would be premature to discuss specific proposals, but I look forward to working with other Federal agencies and Congress.

Closing

Mr. Chairman and members of the Committee:

Thank you for affording me the opportunity to testify before you today concerning an issue of great importance to the Army's future.