

*Directorate of
Environmental
Compliance and
Management
FY02 Annual Report*

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DECAM vision

An enterprising and vigilant DECAM enabling military training and mission readiness in a culture of environmental stewardship that anticipates future requirements.

DECAM mission

The DECAM is a customer-oriented, interdisciplinary environmental organization established to provide for the long-term accomplishment of the military mission. We manage, conserve and demonstrate sound stewardship of the public trust for the environmental resources under our responsibility by providing proactive and competent environmental, energy and natural resource management services and operations. We accomplish the mission by means of a diverse team of individuals integrating professionally all environmental and mission-related requirements within our sphere of influence.

How we met our goals in FY02...

Our Strategic Goals consist of four pillars: Compliance, Restoration, Prevention and Conservation. The following section outlines the desired

outcomes of the four pillars and how individual program areas met their performance goals in FY02.

I. COMPLIANCE: Attain and sustain compliance with federal, state and local environmental laws, regulations, directives and policies. The Compliance Pillar is measured by the following strategic outcomes:

- ✓ Reduce, control or abate pollutants, emissions and discharges to the environment from military support operations.
- ✓ Comply with statutory and regulatory mandates, requirements and procedures.
- ✓ Reduce enforcement actions by regulators.

Clean Water:

Fort Carson did not meet its Clean Water goal of no permit exceedances from regulated permitted discharge points. There was one permit exceedance in FY02, which marked the first occurrence in eight years of monitoring with 500 samples drawn each month. The exceedance represents an insignificant statistical anomaly in what is otherwise a sound program.

Clean Air:

The Air Program met its goals of maintaining compliance with federal, state and local air regulations; and minimizing training and record-keeping restrictions.

In the goal area of maintaining or reducing emissions, the program underwent some major changes in FY02. If previously reported actual criteria hazardous air pollutant emissions are compared to those of 2002 emissions, it appears as if the emissions increased significantly. In reality, 2002 was the first year

to accurately capture a true facility-wide emission survey of all sources (both significant and insignificant).

For FY03 and beyond, the Air Program will reflect maintaining compliance with federal, state and local air regulations; and minimizing training and record-keeping restrictions.

Asbestos/lead/radon:

We met our goal of completing surveys on 150 facilities per year and mitigating all immediate hazards identified by survey process with a target date for completion of surveys of 2004. In FY02, the goal was targeted to the abatement of asbestos and radon, which was changed for FY03 toward more survey activity.

Spill Response/Prevention:

Fort Carson had two reportable spills in FY02 and did not meet its goal to reduce the number of spills reportable to regulatory agencies to zero. Both spills were the result of accidents, one of which was a vehicle roll over. The spills were not due to improper spill control training, which is heavily emphasized.

Noise:

We met our goal of no additional encroachment (zoning changes) of non-compatible land uses on adjacent lands by keeping in constant communication with regional land use planners and thereby being aware of proposed changes.

Drinking Water:

Fort Carson achieved its goal of zero exceedances of National Primary Drinking Water Standards for community and non-community drinking water systems in FY02 due to qualified drinking water operators.

Hazardous Waste:

We met our goal to reduce recurring hazardous waste disposal by an additional five percent each year through the year 2005 through pollution prevention initiatives and handling of certain materials as Universal Waste instead of Hazardous Waste, such as fluorescent bulbs.

Underground Storage Tanks (USTs):

We continue to meet our goal to complete Colorado mandated cleanup of UST petroleum contaminated soil and groundwater by the end of FY04.

This goal is measured by “No Further Action” (NFA) letters from the Division of Oil and Public Safety (OPS) of the Colorado Department of Labor and Employment (CDLE). Fort Carson received NFA letters from OPS during FY02, but the number of responses will make completion of mandated cleanups of USTs by the end of FY04 very difficult. The Installation has requested responses on sites for which we have recently supplied additional information; but have received minimal feedback from OPS.

Above Ground Storage Tanks (ASTs):

We were unable to measure our goal of reducing impacts to the environment and risk to the public caused by leaking petroleum tanks to zero because OPS did not inspect Fort Carson AST’s during FY02. Inspection frequency is determined by OPS. It was found that units failed to conduct monthly visual inspections of the ASTs. The Pollution Prevention Branch of DECAM is now conducting monthly Environmental Compliance Assessments to ensure units

maintain proper AST inspection logs.

National Environmental Policy Act (NEPA):

We are unable to measure if we met our goal of 100 percent compliance for approved (executed) projects requiring further coordination using criteria and methods outlined in the Project Follow-up Section of the NEPA Standard Operating Procedure (SOP). The NEPA coordinators are not always informed of projects being executed on Fort Carson.

To resolve this issue, a contractor has been hired to help us determine through follow up if we are meeting the goal. Based on the contractor's findings we will have a better approximation on meeting our goal and identifying areas in the NEPA SOP that need to be changed in the future. Educational efforts are ongoing to make the Fort Carson community aware of its obligations under NEPA.

Environmental Compliance Assessment System (ECAS):

Fort Carson continued to meet its goal of reducing the number of Class 1, 2, and 3 findings/deficiencies and increased number of positive/issue of special recognition findings, based on the 2001 external ECAS evaluation results.

- ✓ *Class 1* findings are defined as those indicating current noncompliance with federal, state or local environmental regulation, permit, compliance agreement, consent order or Notice of Violation (NOV).
- ✓ *Class 2* findings are those that indicate future noncompliance by not meeting a deadline or meeting an annual requirement such as training.

- ✓ *Class 3* findings are those that either indicate non-adherence with Army/Department of Defense (DoD) regulations, directives or policy guidance; or with recommended good management practices in the absence of other guidance.

Environmental Training:

We did not meet the goal of providing effective environmental training awareness programs for all Fort Carson customers and maintaining at least a 92 percent Environmental Protection Officer (EPO) certification level. The actual percentage of trained EPOs was 90 percent and is attributed to turnover in assigned military personnel and deployments.

II. RESTORATION: Mitigate contamination from past and current operations to protect human health and the environment and fulfill responsibilities established in environmental laws, regulations and permits. The Restoration Pillar is measured by the following strategic outcomes:

- ✓ Reduce sites requiring closure using the 1994 Resource Conservation and Recovery Act (RCRA) facility assessment as a baseline.
- ✓ Reduce short and long-term impacts to human health and the environment.

Restoration:

Fort Carson is meeting its long-term goal to remediate or obtain a permit modification from the Colorado Department of Public Health and Environment (CDPHE) for NFA at all remaining Solid Waste Management Unit (SWMU) sites by FY07.

In FY02, two sites were awarded NFA status. Several sites will be awarded NFA pending the final CDPHE approval of risk assessment guidance documents

related to site-specific risk-based concentrations and background values. During FY02, Fort Carson worked on the preparation and editing of these site-specific documents, as well as held organizational meetings to strive for a formal agreement between DECAM and CDPHE.

III. PREVENTION: Adopt and implement integrated approaches, procedures and operations in all Fort Carson mission areas to minimize or eliminate environmental contamination and pollution. The Prevention Pillar is measured by the following strategic outcomes:

- ✓ Reduce toxic and hazardous waste material used in Installation processes and operations.
- ✓ Improve energy and water use efficiencies.
- ✓ Reduce solid waste disposal.

Energy:

Fort Carson exceeded its annual goal to reduce energy consumption by two percent compared to the previous year in FY02 by reducing energy usage reduction per foot by 2.7 percent from FY01. The goal for FY03 is being increased to 3 percent reduction as compared to FY02.

The energy program efforts were noteworthy in FY02 in that despite drought conditions, residents rose to the challenge of reducing water consumption by more than 100 million gallons over FY01, which equaled a cost savings of \$175,000 for Fort Carson's utility bill.

Recycling:

We did not meet our FY02 recycling goal of providing a customer-based recycling program

that will support obtaining a 40 percent diversion rate of the non-hazardous solid waste stream by FY05 due to high construction debris disposal rate and a decreased recycling program. We plan to improve our recycling program by:

- ✓ Continuing to support and coordinate with other federal agencies in recycle programs that are mutually beneficial and foster resource sharing.
- ✓ Researching and create opportunities to expand the recycling program to include, but not limited to, Construction and Demolition (C&D) debris, plastic, glass and tires.
- ✓ Coordinating recycling innovations with the Directorate of Public Works (DPW), the Directorate of Logistics (DOL), the Directorate of Contracting (DOC), the Directorate of Reutilization and Marketing Office (DRMO) and Fort Carson Recycle Process Action Team (PAT).

Pollution Prevention:

We had mixed results in meeting our FY02 goal of reducing pounds of pollutants, emissions and discharges to the environment using 2001 as a baseline

- ✓ **Pollutants:** Hazardous waste numbers decreased due to better training, improved products and improvements in process where once hazardous waste such as solvents, are now recycled.

Solid waste figures increased from FY01 to FY02 due to construction projects on post, which fluctuate from year to year.

- ✓ **Emissions:**

Carbon monoxide emissions, which are captured from such sources as boilers and generators, rose in FY02 from FY01. This increase can be countered by purchasing newer, more efficient appliances and preventative maintenance on existing units.

- ✓ **Discharges:** The Toxic Release Inventory (TRI) emissions increased in FY02 due to new reporting requirements for range munitions. Previous to FY02, TRI for the Installation only included ethylene glycol and nitrates. In FY02, Fort Carson began reporting on range-related emissions such as lead and copper. To reflect this change in reporting requirements, the performance goal baseline year will be adjusted to FY02 statistics for FY03.

IV. CONSERVATION:

Conserve and protect natural and cultural resources consistent with the military mission for present and future generations. The Conservation Pillar is measured by the following strategic outcomes:

- ✓ Sustain and improve training land condition and realism.
- ✓ Comply with statutory and regulatory mandates, requirements and procedures in order to reduce negative impacts on training and quality of life.
- ✓ Improve urban landscape and livability of the community.

Noxious Weeds:

We did not meet the goal of maintaining a downward change of five percent in the spread of noxious weeds on Fort Carson and the Piñon Canyon Maneuver Site

(PCMS) due to refinement of our goal and measure.

Forestry Ecosystem Management:

We met our goal of conducting fuels reduction/forest thinning program equal to or greater than 0.5 percent per year at Fort Carson and PCMS. We did not, however, meet our goal of completing a forest management plan due to other mission requirements and funding limitations. The plan will be completed in FY03/FY04.

Water Rights Maintenance:

Fort Carson met its goal of no water rights considered for abandonment. We achieved the goal because we monitor and report water use responsibly (via the U.S. Geological Survey [USGS]), we maintain our water diversion system and many of our rights are junior rights that do not require much maintenance during drought years.

Watershed Management:

We did not meet our goal of maintaining a minimum of 70 percent canopy cover of all watersheds with an implemented plan. Future plan development with appropriate staffing and resources will assist in goal accomplishment.

Endangered Species

Protection and Recovery:

Fort Carson met its goal of receiving no jeopardy opinions issued to Fort Carson by the U.S. Fish and Wildlife Service (USFWS) due to Army actions that would be expected to directly or indirectly reduce the survival or recovery of a listed species. Careful monitoring, consistent dialogue with the regulators and proactive habitat protection/supplementation (habitat conservation easements) enabled us to prevent such findings.

Plant Materials:

We were unable to measure whether we met the goal of maintaining an upward change of five percent in rangeland condition at Fort Carson and the PCMS. There were concerns about measurement data collected through the Land Condition Trend Analysis (LCTA) program.

The DECAM will meet regularly with the command organization (G3) responsible for the LCTA program to coordinate and create a dialogue on all shared interests that will assist in remedying the issue of how data is captured and analyzed.

Pest Control and Pesticide Reduction:

We met and exceeded our goal to effectively control pests while reducing the amount of annual pesticide usage to 2,240 pounds of active ingredient by the end of FY02 due to drought conditions and a large amount of construction work, which limited the required amount of pesticide for the year.

Wildlife Recreational Management:

Fort Carson met its goal of providing 90 percent customer satisfaction with the management of the wildlife recreation program on Fort Carson and the PCMS. Satisfaction was measured from data collected from customer surveys. We provide an interactive service by assisting with information and availing ourselves to answer customer questions.

Wildfire Management:

We achieved our goal of safe operations with zero accidents or injuries by ensuring proper training and safe wildland fire suppression response.

Wetland Protection and Recovery:

We met our goal of no net loss of wetland resources on Fort Carson and the PCMS as determined by the National Wetland Inventory Method using the FY93 survey as the baseline. We ensure compliance through dialogue with regulators, use of the NEPA processes and adherence to the Clean Water Act despite having limited water resources.

Urban Forestry:

Fort Carson continues to provide quality urban forest management that provides for the greatest survival of new plantings and met its goals in FY02 through diligence and dedication to keep the trees alive.

Cultural Resources Management:

We sustained compliance with all cultural laws and regulations, protecting significant cultural resources while maintaining the largest possible area for military training. Our goal was accomplished through qualified staff and project-specific contractors placing an emphasis on conducting and completing surveys in an expedited fashion.

PCMS Environmental Operations:

We met our goal of no net loss of mechanized training land due to permanent natural resource requirements over FY00 baseline through continued coordination with and among stakeholders, and due to successfully implementing the FY02 annual workplan.

A snapshot of our accomplishments...

Fort Carson hosts regional Sustainability Workshop

The Mountain Post was the fourth U.S. Army Forces Command installation to host an Installation

Sustainability Workshop. The workshop, held September 2002 in Colorado Springs, included more than 240 community stakeholders tasked to hash out the most critical goals for Fort Carson in the next 25 years.

The workshop's purpose was to challenge the attendees, which included command staff, military from surrounding installations, subject matter experts, local officials, community members and regulators to assist Fort Carson in preparing for the future successfully and sustainably.

Fort Carson defines the concept of sustainability as "The use of resources to meet the needs of the present without compromising the ability of future soldiers to meet their own mission." The Installation has taken this definition of sustainability and ensured it encompasses not only natural resources, but also the resources of our communities on post and off post; energy and transportation resources; products and materials; and facilities and urban development.

For Fort Carson, sustainability equates to whatever it takes to ensure the resources are used in a manner that does not jeopardize future missions.

Attendees at the Sustainability Workshop in September were asked to think about how to tackle issues including:

- ✓ Water quality and supply.
- ✓ Ensuring air quality while maintaining mission requirements.
- ✓ Ensuring energy efficiency in buildings and transportation needs.
- ✓ Protecting land and wildlife resources while conducting the training mission.

- ✓ Managing hazardous materials, waste and recycling.
- ✓ Buying environmentally-preferable products to assist in long-term sustainability.
- ✓ Issues surrounding noise impact and encroachment by development near the Installation.
- ✓ Preserving cultural resources on post for future generations to learn about and enjoy.

Several goals were set during the workshop and action toward attaining them have begun. Fort Carson developed a motto for itself at the end of the workshop to encapsulate its sustainability mission –

*"Sustainable Fort Carson:
Enduring G.E.M. of the West."*

G. (green)/E. (environmental & economy)/M. (model)

Fort Carson constructs Green Building

The development of more energy efficient and environmentally friendly facilities is becoming a growing focus for the government and private industry.

Sustainable design means incorporating such elements as increased energy efficiency use of renewable, cleaner energy sources (solar, wind, geothermal, etc.), constructing with recycled materials and constructing facilities that take advantage of the natural environment.

The DECAM overcame misconceptions, obtained funding and began convincing leadership of the need to begin planning and designing a facility integrated with sustainable elements. This facility is a first step in demonstrating how sustainable concepts can be integrated into future building projects and renovations.

A building was developed with a limited budget to demonstrate sustainable elements and how easy they are to implement.

The 2,800-square-foot training facility was planned for a central location on the Installation. The facility plan included a large training room (about 60-70 occupants maximum) with a state-of-the-art audiovisual system, two restrooms, a lobby, storage area and a small office. Some of the sustainable aspects and equipment integrated into the design and construction include:

- ✓ Building orientation, which takes advantage of southern and western exposure. Proper orientation alone can save a building 20-40 percent in heating and lighting costs.
- ✓ High-efficiency, low emissivity windows are equipped with a coating to allow visible light through but selectively block infrared radiation (heat). These windows reduce heat escaping on cold days and entering on hot days, which boosts insulation efficiency.
- ✓ Natural cooling cupola that uses louvers and fans to force hot air up and out eliminating the need for traditional air conditioning.
- ✓ Low-flow water fixtures to conserve water resources.
- ✓ Construction products contain significant percentages of recycled content materials or re-use waste products such as recycled steel, paper fiber and sustainably harvested woods.

Fort Carson will use the facility for environmental and other training classes it conducts for staff and soldiers, as well as other Installation events.

Fort Carson recycles tank track to build crossing

In early 2002, Fort Carson constructed a hardened water crossing using “recycled” tank track at the far east end of Landfill 5. The DECAM, the U.S. Army Corps of Engineers Construction Engineering Research Laboratory (CERL) and contractors, built the crossing as part of a research study on using the unserviceable tank track for such applications. Fort Carson is the first Army site to build such a crossing.

The goal was to build a stable, hardened stream crossing able to withstand traffic pressures, watershed impacts and resist erosion. The crossing is in an area that services many users, including permanent and reserve unit traffic, trainers exercising police dogs and physical fitness training.

The hardened crossing was constructed of 44 strips of used tank track each weighing approximately 1,600 pounds. The crossing is 20 feet wide by 100 feet long. Project end products included:

- ✓ The reuse of unserviceable tank track instead of disposal as a large amount of solid waste at a landfill.
- ✓ The CERL gained design specifications for use by other installations.
- ✓ The validation of an alternative source of stream crossing material in parts of the world where our forces are present and other sources of material are not readily available.

Partnerships crucial to our success

Fort Carson key member of the Front Range Ecoregional Team

There are eight DoD installations along the Front Range in Colorado (Fort Carson, Headquarters Air Force Space Command, Cheyenne Mountain Air Station, U.S. Air Force Academy (USAFA), Peterson Air Force Base, Schriever Air Force Base, Buckley Air Force Base) and Wyoming (Francis E. Warren Air Force Base). For years the installations have been executing their environmental programs independently.

In 2001, the Ecoregional Team was formed, which includes the Front Range military installations and the U.S. Fish and Wildlife Service (USFWS). The expressed purpose of the team is to provide a means to work together toward a common and regional goal – supporting our military in an efficient and cost-effective manner by conserving resources – through the use of shared personnel, equipment and existing contracts.

Fort Carson began its ecoregional efforts by partnering with the USAFA in FY02 on forestry and reclamation programs. The USAFA resident forester inspected Fort Carson’s forests for the presence and extent of insect and disease. This forester is also a member of the Fort Carson Forestry Management Team currently working on its management plan.

The Installation has provided assistance to the USAFA by coordinating air support in monitoring their forests and with the use of its reclamation equipment to meet project objectives.

The Ecoregional Team is already proving special partnership opportunities where installations across the various branches of the DoD are able to use the expertise of specialists and equipment to accomplish their goals without the extra expense of additional staff and equipment.

Fort Carson and WHC partner to educate students

The Fort Carson DECAM, the Wildlife Habitat Council (WHC) and School District 11 Science Department for Colorado Springs have been partnering in an effort to enhance environmental and natural resources educational opportunities for local students.

The DECAM has carried certification through the WHC for six years and began participating in its Corporate Lands for Learning Program in 1999. Fort Carson, the only military installation that participates in the WHC Corporate Lands for Learning (CLL) program, earned runner up in the 2001 CLL awards program in November 2001.

The WHC assists Fort Carson in achieving national standards in wildlife habitat, community outreach and education programs by providing Fort Carson the appropriate guidelines. The WHC also provides opportunities to compete for grants and other cooperative programs that cost share and partner with other interested publics.

Outreach is important to the Installation on many levels. Fort Carson is the largest land manager in the Pikes Peak region, and as such, the command feels the responsibility to take care of its natural resources and habitat. One valuable way to inform the public about the Installation’s

extensive environmental conservation efforts is through school outreach efforts by the Wildlife Team.

During the past 20 years our wildlife educational programs have reached approximately 3,000 to 7,000 people annually. Since partnering with the WHC, Fort Carson has held dozens of classes with school-age children and annual science-oriented field trips on and off of Fort Carson.

The current area education partners under the Wildlife Habitat Council partnership program include: Pikes Peak Community College, Natural Resources Programs; District 11 Schools, to include 39 grade schools, nine middle schools and five high schools; and School District 8, which includes Fort Carson and Fountain schools.

Fort Carson RAB links us to our community

The Fort Carson Restoration Advisory Board (RAB), formed in November 1994, has been a longstanding, integral part of the Installation Restoration Program. The purpose of the RAB is to provide the community with oversight, input opportunities and monitoring ability of restoration activities on Fort Carson.

From the outset, the RAB has been kept informed of all restoration-related activities on the Installation. They are regularly briefed on the status of SWMUs that store chemicals, landfill remediation and any other activities that might affect human health and the environment of the surrounding community.

Many installations face bitter struggles with their surrounding communities when it comes to remediation efforts. A significant accomplishment of the Fort Carson RAB is that by their own admission, they are confident and satisfied with the work the Installation is performing.

The RAB can be credited with the ongoing effort to maintain a balance between the Installation and the CDPHE through their third party input.

The RAB Community-Co Chair, a member of the public, is invited to the annual Installation Action Plan (IAP) meetings to provide input on budget allocation and site prioritization and to give the community a voice in how Fort Carson proceeds with restoration projects.

Strategic Plan provides roadmap

The strategic plan relates the vision, mission, values and goals of DECAM. This overall plan is used by command, other directorates and the public (as applicable) to understand why DECAM performs its tasks and the values used during performance. The vision of the plan is clearly stated as “enabling military training and mission readiness in a culture of environmental stewardship that anticipates future requirements...”

This vision allows external stakeholders to understand that the DECAM’s desire is to sustain the environment for future military training missions and reminds DECAM program managers that their jobs encompass protection of the environment and the military mission.

DECAM undergoes realignment

DECAM underwent a large-scale realignment in Spring 2002. As a result, the former Natural Resources Division is now the Natural and Cultural Resources Division; the former Environmental Compliance Division is now the Environmental Compliance, Restoration and Prevention Division; and, finally, the former Business Management Administrative Division and Mission Support Division were combined to create the Business and Environmental Services Division.

The purpose of the realignment was to improve process focus, reduce bureaucratic lines, clarify lines of authority, improve career advancement opportunities, improve span of control and improve supervisor to employee ratios.