

CHAPTER 4

Natural Resources Management in Action

Fort Meade, Maryland--October 1987

William Harmeyer, a wildlife biologist, had served as natural resources specialist and chief of the Natural Resources Office at Fort Meade since 1975. He defined his mission as the sound stewardship of renewable natural resources. Fort Meade encompasses approximately 13,500 acres, of which more than 5,000 were managed forest and 11,000 were managed for wildlife.

The Natural Resources Office reported to the Environmental and Energy Control Office (ECO) at Fort Meade. This organizational structure reflected the nationwide trend of increasing environmental consciousness. Natural Resources managed forestry, timber sales, wildlife, and hunting programs. Also reporting to the Environmental and Energy Control Office was the fort's Buildings and Grounds Office, which was headed by an agronomist and dealt with landscaping.

Until the late 1970s, Fort Meade did not place natural resources management high on its list of funding priorities. Sporadic natural resources projects relied on the military training program for labor. For example, a habitat would be created by a training exercise that happened to involve clearing land. Only when military exercises damaged the environment to the point that it interfered with the ability to keep training did natural resources management gain official recognition.

Repeated use of favored training sites had caused loss of ground cover and serious soil compaction. Once ground cover was lost, the nutrients leached out of the topsoil, making it extremely difficult to reestablish a cover crop. To prevent the recurrence of such situations, in 1987 Harmeyer introduced a simple one-page "Natural Resources Impact Evaluation Worksheet" as a planning tool for land use. Accompanying this worksheet was a land use key that ranked specific land areas according to their condition. "Critical" referred to areas in danger of sustaining irreparable damage or to areas with archaeological sites. "Sensitive" might refer to an overused bivouac site. At the time it was introduced, the worksheet was viewed as sufficient to current needs.

Harmeyer's office was attempting to integrate natural resources management with military use of the land. One way of accomplishing this goal involved planting hedgerows around military use areas. This served the double purpose of creating edge habitat and marking off different types of training environments.

Fort Meade was selling timber to an active local post and pole market. They had not always had the resources to conduct timber sales, so they used to let the public come in to remove forest litter from thinning operations, exchanging free wood for free labor. By 1987, they had gained the ability to estimate the volume of wood available from thinning and arrange for its sale.

Harmeyer strove for variety in replanting forest areas, allowing natural regeneration in some areas while planting selected commercial species in others. He adopted this approach because it integrated forest management with habitat management, creating diverse habitats and diverse training areas while enhancing the trees' disease resistance.

Fort Meade had a high quality deer herd, a popular hunting program, and a good rapport with hunters. The hunting program was open to the public within the limits of safety requirements. The management goal was to control the size of the herd while improving its health. Additional successes in wildlife management included enhancement of wetland habitats and propagation of wood ducks and Canada geese.

The installation had experienced very little public pressure from environmental groups. Harmeyer attributed this to two factors: Fort Meade's relatively longstanding concern with environmental issues and the antispraying orientation of the pest control program. For example, the primary approach for controlling gypsy moths was to thin out the most susceptible tree species. Harmeyer also attributed the base's large bluebird population to the limited use of pesticides.

A cooperative program between Fort Meade and the University of Maryland had assisted the state in developing a natural means of pest control. Fort Meade planted wheat as a fall cover crop and did not harvest it. The wheat fields thus supported several varieties of parasites that afflict the cereal borer. The state collected these parasites for release in western Maryland to control cereal borers.

Harmeyer observed several trends that affected natural resources management. He saw integrated management as an idea whose time had come. In the past, forestry and agronomy specialists had competed for scarce funds and worked at cross purposes. By 1987, they cooperated in evaluating land use plans for their effect on the total environment. Harmeyer also observed that it had become easier to get the attention of the decisionmakers and to acquire command support. Commands were better informed and had come to recognize the value of natural resources management.

Aberdeen Proving Ground (APG), Maryland--October 1987

Aberdeen encompasses close to 80,000 acres. More than 5,000 acres were managed as forest land, and over 29,000 acres were covered by the wildlife management program.

Cornelius Powells, management agronomist since 1975 for the installation's Buildings and Grounds Office, administered the forestry, land use management, and grounds maintenance programs at Aberdeen. His duties included landscape design and review and contract administration. Another task performed under his office was the spreading of sewage sludge on agricultural land. Aberdeen's Buildings and Grounds Office conducted forest management according to a forestry plan that a contractor had formulated.

Aberdeen's grounds maintenance contract was one of the largest in the Department of Defense. The Army-wide commercial activities program, which required the use of contractors whenever possible, had imparted some uncertainty to Aberdeen's future grounds maintenance work. The grounds maintenance work was performed by government employees, but they were facing the prospect of competing for the work in future years.

Jim Pottie had been fish and wildlife biologist, and then environmental protection specialist/biologist for Aberdeen's Environmental Management Office since 1980. He administered the wildlife and endangered species programs and led the Natural Resources team. The original wildlife program had emphasized planting food for wildlife and administering hunting. The Buildings and Grounds Office had handled the planting work because they already had the heavy equipment and operators. The growth of the environmental movement caused this work to be shifted to an environmental

office in the early 1980s. In addition, the wildlife program shifted its emphasis to environmental management.

The passage of the National Environmental Policy Act increased the documentation requirements, causing Aberdeen's wildlife biologist to spend more of his time on paperwork with less time remaining for field work. The act also changed the emphasis of wildlife management from consumption to a combination of consumption and preservation. However, demand for hunting privileges continued to grow.

Aberdeen Proving Ground had excellent food plots, but in the past an out-of-control deer population had severely depleted the plots. The deer population had been actively fostered until about 1944 and had grown too large since then. The wildlife program attempted to manage and control the herd, because the alternatives, starvation or slaughter, would have been unacceptable to the public. Aberdeen's hunting program combined a longer season with the requirement to kill at least one doe before killing a buck. Deer hunting permits were available to Aberdeen's active-duty military and civilian personnel, its military and civilian retirees, and their escorted guests.

The Department of the Army required that hunters on Army land take annual hunter safety courses. Pottie argued that every year is too frequent, and that the requirement would discourage hunters from coming to Aberdeen. The Army modified the requirement in response to input from the proving ground and the command level.

Noting that Aberdeen encompassed good Chesapeake Bay wildfowl habitat, Maryland requested the Office of the Chief of Engineers to allow the state to establish and manage duck hunting blinds at the proving ground. The OCE management agronomist asked Pottie to report on

the potential impact of such a program. Pottie was concerned that public access would enable foreign agents to infiltrate as hunters and monitor ordnance tests. A compromise resulted in Aberdeen Proving Ground controlling the issuance of duck hunting permits and restricting them to days when no testing is scheduled. The proving ground bought up the permits and issued them by lottery to current or past installation personnel who had security clearances.

In recognition of each installation's unique conditions, natural resources professionals at the installations gained increased autonomy. As an example, Pottie worked with the Environmental Protection Agency to set up a model wetlands program at Aberdeen, which was then approved at the OCE level. Similarly, the proving ground formulated most of its hunting and endangered species programs and then passed the plans up the chain of command for approval.

National Guard Bureau, Edgewood, Maryland--October 1987

The OCE Buildings and Grounds Branch oversaw natural resources management on Army-owned National Guard land, which comprised about 20 percent of total National Guard land. Jamie Rappaport had served since 1982 as the first natural/cultural resources program manager for the National Guard's Environmental Resources Branch. The National Guard's natural resources management program trailed that of the Army by several decades; the Environmental Resources Branch had not even been created until 1980.

The National Guard program included land management, forestry, timber sales, archaeology and historic preservation, and pest control for the 54 National Guard sites nationwide. Like the Army 30 years ago, the biggest problem was the lack of trained

natural resources personnel to implement policy at the installations. Although National Guard installations were facing the same public environmental pressures that affected all of the Department of Defense, they were less prepared to respond because the program was so new.

Rappaport actively sought technical assistance from the Buildings and Grounds Branch and benefited from their experience. The branch had been particularly helpful in obtaining program funding, involving the National Guard in natural resources management activities at the DOD level, and providing information about new computer applications.

In 1987, the National Guard was researching the effects of long-term intensive training on the land and soil. The study used the Land Condition-Trend Analysis computer program developed by the Corps of Engineers. Rappaport planned to make the program available to the state National Guards. She anticipated a trend toward increasing computerization because land use decisions often have to be made quickly.

V Corps Area, West Germany--August 1988

Martin Elyn, a landscape architect and a Belgian national, had served as a civilian employee of the V Corps Directorate of Engineering and Housing (DEH) since 1977, which marked the beginning of V Corps natural resources and land management efforts. As a management agronomist, he headed the Land Management Section of the Roads and Grounds Branch of the Facilities Support Division.

Natural resources management for the ten military communities and six training areas of the V Corps area fell under the supervision of the Directorate of Engineering and Housing, which in turn reported to U.S.

Army, Europe (USAREUR). USAREUR then reported to the Buildings and Grounds Branch at the Corps of Engineers in Washington, DC.

The U.S. Army after World War II had no formal natural resources management organization in Europe. Management practices began and ended with mowing, raking, and snow and ice control. Only in 1976 did the Army begin to see the necessity of long-range planning. One of Elyn's early tasks at the V Corps Directorate of Engineering and Housing was to draw up natural resources management plans. This exercise revealed the lack of trained people to implement the plans, but, as elsewhere in the Army, approval for additional personnel spaces was not forthcoming.

In the mid-1980s, the Army decided to return to regular duty the soldiers detailed to grounds maintenance. This action created 400 new positions for groundskeepers. The Directorate of Engineering and Housing's planning paid off; the plan specified skills and job descriptions, allowing the directorate to immediately request the management personnel they needed. From this time, the natural resources management program experienced dramatic growth.

The natural resources management program in Germany had to contend with conditions and limitations not present in the United States. First, some segments of German society objected to the U.S. Army presence and most of its actions. Thus, the Directorate of Engineering and Housing had to be sensitive to the Army's image in all of its actions. Second, the United States leased rather than owned the limited amount of land it used and had no means of acquiring more land for military use. Although under the North Atlantic Treaty Organization Status of Forces Agreement the Army could overrule German land use laws in theory, in practice, they have adhered to such laws as a courtesy

to an ally.

Accordingly, under German law, for each acre of forest cut on a U.S. facility, one acre had to be reforested, in the immediate vicinity when practicable. The Army has selected for reforestation areas where no future construction will occur or areas that will not interfere with the military mission, such as the perimeters of bases. Some military security personnel, however, have objected to perimeter reforestation, arguing that it makes their job more difficult. As in the United States, it has been difficult to convince military commanders to release land for reforestation, because they have viewed it as losing control over the land. In fact, reforested acreage has remained under Army control, while the German government has paid for forest planting and management. From fiscal year 1984 to fiscal year 1986, the V Corps cut 27 hectares (67 acres) and reforested 58 hectares (143 acres).

Also under German law, the Army had to seek permission to cut trees for construction, and projects had been delayed as a result. In addition, the state of Hessen had asked for cash compensation for any land the U.S. Army has paved over.

It was not possible, as it was in the United States, for an installation to conduct wood sales and sell hunting/fishing licenses to earn money. The German forest manager controlled hunting permits, and his stringent training requirements assured that only qualified hunters had access to the land. Hikers also had free access to trails through training areas, as live ammunition was not used in all areas.

U.S. forces in Europe authorized such activities as crop production and grazing on their land. The leasing arrangement, however, was between the farmer and the German government. The V Corps area permitted grazing on several airfields.

Elyn identified education as a large component of his job. He has had to sell the value of natural resources planning to both the U.S. Army and local officials. Because of the Army's two-year rotation policy, he has had to repeat himself when new personnel arrive. Because of both the rotation policy and the perceived advantage in dealing with European nationals, the Army has tended to employ Europeans as civilian land managers overseas.

Friedberg Training Area, West Germany

In the early 1950s, the U.S. Army started conducting tracked vehicle training exercises on a small portion of the 10,000-acre Friedberg site. The steep, hilly site was clearcut for the exercises. During training, vehicles sought cover along the borders of the clearing. They ran over tree roots, which destroyed the trees and gradually expanded the cleared area to 200 acres. Close to 90 percent runoff occurred from this site, causing 12 foot deep gullies. On several occasions, runoff down the gullies blocked a local road. Cleanup after one such incident cost the Army almost 200,000 Deutschmarks (about 1.8 Deutschmarks per \$1.00 or \$111,111). On the opposite side of the mountain, sediment runoff occluded a private trout pond.

A German architect-engineer initially proposed building catch basins. This was rejected because it didn't address the cause of the problem. The second proposal was to build check dams and plant vegetation on the bare sites. Temporary fences were built around the new vegetation. At first some soldiers would occasionally ignore the fences and knock them down. Efforts focused on convincing the Army that it was in their interest to restore the site because units were

losing too much time during maneuvers extricating bogged vehicles. Typically, a wrecker had to accompany all maneuvers to pull out bogged vehicles. In addition, vegetation could provide concealment for more realistic maneuvers. Finally, it would save money by eliminating local cleanup costs.

For an expenditure of 950,000 Deutschmarks (\$527,778) over the three years from 1984 to 1987, 60 small log weir barriers were built to serve as check dams. Trees that were cut down had to be replaced by planting an equal number: 10 percent were replanted on site and the balance elsewhere. The ditch was reshaped and replanted. Elyn anticipated that the rehabilitation of the area would prove to be a sound investment for erosion control, improved training conditions, and public relations.

According to Elyn, the training operations conducted on the 200-acre cleared area at Friedberg would have taken place on a 28,000-acre site if they were conducted in the United States. Thus, platoon leaders fresh from the States could find it difficult to confine their activities to such a small area. Since the training areas in Germany were relatively few and small, training exercises could not be rotated through other sites while exhausted sites were being renewed.

The U.S. training areas have faced one problem that those in Germany do not share: forest fires. The rainy climate reduces the threat to relatively minor proportions.

Ammunition Storage Site: Koeppern South, Pre-stock Point 3J

Koeppern South was one of six sites where munitions were pre-positioned in V Corps. This site

featured a pilot program to demonstrate the value of reforestation at ammunition sites. In 1977, maintenance of ammunition storage sites presented a costly problem because of the steep slopes of the earth-covered magazines. The Directorate of Engineering and Housing proposed reforestation because it would provide such advantages as erosion control, reduced maintenance costs, and passive air defense. In addition, ammunition storage sites provided an area that was not subject to future construction and could thus be reforested in exchange for tree-cutting operations elsewhere. Opponents argued that tree roots would break down the bunkers, trees would ruin the lightning protection system, and forests would cause a fire hazard. Nonetheless, in 1978, USAREUR approved the pilot reforestation program.

Normally, at federally owned German sites, federal funds were available to pay for the planting, labor, and maintenance of forested areas. Koeppern was not federally owned but instead owned by local communities. The significance of this was not realized until the first bill came due and was sent to the Corps of Engineers. As a result, forest planting and maintenance ceased. Consequently, grasses and broom took over, creating a fire hazard and future maintenance problems.

Platen Gardens Housing Area, Frankfurt, West Germany

American family housing areas normally have not been intensively landscaped, in sharp contrast to adjacent German areas that feature dense landscaping. Since fiscal year 1982, the Directorate of Engineering and Housing had participated with the state of Rheinland-Pfalz in a joint German-American landscaping program for Army family housing areas. In fiscal year

1984, the directorate proposed a similar program to the state of Hessen, and the first plantings were completed in 1987. The program's advantages included integration of American housing areas into the surrounding communities and improvement of morale among the occupants. U.S. Army installations are generally located in urban areas with high visibility.

The German-American landscaping program matched funds and manpower to plant trees and shrubs in selected, highly visible areas so the planting would also benefit local Germans. At Platen Gardens, a border area across from a German housing area and adjacent to the autobahn was landscaped. However, as Elyn noted during a 1988 visit, poor follow-up maintenance had detracted from the result. Furthermore, one still had a basically unobstructed line of sight from one end of the American housing area to the other, in contrast to the lush appearance of the adjacent German apartment complex.