tractors, lawn equipment, military vehicles, etc.) which is substantially the same as that routinely performed by private sector owners and operators of similar equipment and vehicles. This does not include depot maintenance of unique military equipment.

(h) Hazardous materials/hazardous waste management and operations:

(1) Use of gauging devices, analytical instruments, and other devices containing sealed radiological sources; use of industrial radiography; use of radioactive material in medical and veterinary practices; possession of radioactive material incident to performing services such as installation, maintenance, leak tests, and calibration; use of uranium as shielding material in containers or devices; and radioactive tracers (REC required).

(2) Immediate responses in accordance with emergency response plans (for example, Spill Prevention Control and Countermeasure Plan (SPCCP)/Installation Spill Contingency Plan (ISCP), and Chemical Accident and Incident Response Plan) for release or discharge of oil or hazardous materials/substances; or emergency actions taken by Explosive Ordnance Demolition (EOD) detachment or Technical Escort Unit.

(3) Sampling, surveying, well drilling and installation, analytical testing, site preparation, and intrusive testing to determine if hazardous wastes, contaminants, pollutants, or special hazards (for example, asbestos, PCBs, lead-based paint, or unexploded ordnance) are present (REC required).

(4) Routine management, to include transportation, distribution, use, storage, treatment, and disposal of solid waste, medical waste, radiological and special hazards (for example, asbestos, PCBs, lead-based paint, or unexploded ordnance), and/or hazardous waste that complies with EPA, Army, or other regulatory agency requirements. This CX is not applicable to new construction of facilities for such management purposes.

(5) Research, testing, and operations conducted at existing enclosed facilities consistent with previously established safety levels and in compliance with applicable federal, state, and local standards. For facilities without existing NEPA analysis, including contractor-operated facilities, if the operation will substantially increase the extent of potential environmental impacts or is controversial, an EA (and possibly an EIS) is required.

(6) Reutilization, marketing, distribution, donation, and resale of items, equipment, or materiel; normal transfer of items to the Defense Logistics Agency. Items, equipment, or materiel that have been contaminated with hazardous materials or wastes will be adequately cleaned and will conform to the applicable regulatory agency's requirements.

(i) Training and testing:

(1) Simulated war games (classroom setting) and on-post tactical and logistical exercises involving units of battalion size or smaller, and where tracked vehicles will not be used (REC required to demonstrate coordination with installation range control and environmental office).

(2) Training entirely of an administrative or classroom nature.

(3) Intermittent on-post training activities (or off-post training covered by an ARNG land use agreement) that involve no live fire or vehicles off established roads or trails. Uses include, but are not limited to, land navigation, physical training, Federal Aviation Administration (FAA) approved aerial overflights, and small unit level training.

(j) Aircraft and airfield activities:

(1) Infrequent, temporary (less than 30 days) increases in air operations up to 50 percent of the typical installation aircraft operation rate (REC required).

(2) Flying activities in compliance with Federal Aviation Administration Regulations and in accordance with normal flight patterns and elevations for that facility, where the flight patterns/elevations have been addressed in an installation master plan or other planning document that has been subject to NEPA public review.

(3) Installation, repair, or upgrade of airfield equipment (for example, runway visual range equipment, visual approach slope indicators).

(4) Army participation in established air shows sponsored or conducted by non-Army entities on other than Army property.

## APPENDIX C TO PART 651—MITIGATION AND MONITORING

(a) The CEQ regulations (40 CFR parts 1500–1508) recognize the following five means of mitigating an environmental impact. These five approaches to mitigation are presented in order of desirability.

(1) Avoiding the impact altogether by not taking a certain action or parts of an action. This method avoids environmental impact by eliminating certain activities in certain areas. As an example, the Army's Integrated Training Area Management (ITAM) program accounts for training requirements and activities while considering natural and cultural resource conditions on ranges and training land. This program allows informed management decisions associated with the use of these lands, and has mitigated potential impacts by limiting activities to areas that are compatible with Army training needs. Sensitive habitats and other resources are thus protected, while the mission requirements are still met.

(2) Minimizing impacts by limiting the degree or magnitude of the action and its implementation. Limiting the degree or magnitude of the action can reduce the extent of

an impact. For example, changing the firing time or the number of rounds fired on artillery ranges will reduce the noise impact on nearby residents. Using the previous ITAM example, the conditions of ranges can be monitored, and, when the conditions on the land warrant, the intensity or magnitude of the training on that parcel can be modified through a variety of decisions.

(3) Rectifying the impact by repairing, rehabilitating, or restoring the effect on the environment. This method restores the environment to its previous condition or better. Movement of troops and vehicles across vegetated areas often destroys vegetation. Either reseeding or replanting the areas with native plants after the exercise can mitigate this impact.

(4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action. This method designs the action so as to reduce adverse environmental effects. Examples include maintaining erosion control structures, using air pollution control devices, and encouraging car pools in order to reduce transportation effects such as air pollution, energy consumption, and traffic congestion.

(5) Compensating for the impact by replacing or providing substitute resources or environments (40 CFR 1508.20). This method replaces the resource or environment that will be impacted by the action. Replacement can occur in-kind or otherwise; for example, deer habitat in the project area can be replaced with deer habitat in another area; an in-kind replacement at a different location. This replacement can occur either on the impact site or at another location. This type of mitigation is often used in water resources projects.

(b) The identification and evaluation of mitigations involves the use of experts familiar with the predicted environmental impacts. Many potential sources of information are available for assistance. These include sources within the Army such as the USACHPPM, the USAEC, the MACOM environmental office, the ODEP, COE research laboratories, COE districts and divisions, and DoD Regional Support Centers. State agencies are another potential source of information, and the appropriate POC within these agencies may be obtained from the installation environmental office. Local interest groups may also be able to help identify potential mitigation measures. Other suggested sources of assistance include:

(1) Aesthetics:

(i) Installation Landscape Architect.

(ii) COE District Landscape Architects.

(2) Air Quality:

(i) Installation Environmental Specialist.

(ii) Installation Preventive Medicine Officer.

(3) Airspace:

(i) Installation Air Traffic and Airspace Officers.

(ii) DA Regional Representative to the FAA.

(iii) DA Aeronautical Services.

(iv) Military Airspace Management System Office.

(v) Installation Range Control Officer.

(4) Earth Science:

(i) Installation Environmental Specialist.

(ii) USACE District Geotechnical Staff.

(5) Ecology:

(i) Installation Environmental Specialist.

(ii) Installation Wildlife Officer.

(iii) Installation Forester.

(iv) Installation Natural Resource Committee.

(v) USACE District Environmental Staff.

(6) Energy/Resource Conservation: Installation Environmental Specialist.

(7) Health and Safety:

(i) Installation Preventive Medicine Officer.

(ii) Installation Safety Officer.

(iii) Installation Hospital.

(iv) Installation Mental Hygiene or Psychiatry Officer.

(v) Chaplain's Office.

(8) Historic/Archaeological Resources:

(i) Installation Environmental Specialist.

(ii) Installation Historian or Architect.

(iii) USACE District Archaeologist.

(9) Land Use Impacts: (i) Installation Master Planner.

(ii) USACE District Community Planners.

(10) Socioeconomics:

(i) Personnel Office.

(ii) Public Information Officer.

(iii) USACE District Economic Planning Staff.

(11) Water Quality:

(i) Installation Environmental Specialist.

(ii) Installation Preventive Medicine Officer.

(iii) USACE District Environmental Staff.

(12) Noise:

(i) Preventive Medicine Officer.

(ii) Directorate of Public Works.

(iii) Installation Master Planner.

(13) Training Impacts:

Installation Director of Plans, Training, and Mobilization

(c) Several different mitigation techniques have been used on military installations for a number of years. The following examples illustrate the variety of possible measures:

(1) There are maneuver restrictions in areas used extensively for tracked vehicle training. These restrictions are not designed to infringe on the military mission, but rather to reduce the amount of damage to the training area.

(2) Aerial seeding has been done on some installations to reduce erosion problems.

(3) Changing the time and/or frequency of operations has been used. This may involve changing the season of the year, the time of

day, or even day of the week for various activities. These changes avoid noise impacts as well as aesthetic, transportation, and some ecological problems.

(4) Reducing the effects of construction has involved using techniques that keep heavy equipment away from protected trees and quickly re-seeding areas after construction.

(d) Monitoring and enforcement programs are applicable (40 CFR 1505.2(c)) and the specific adopted action is an important case (40 CFR 1505.3) if:

(1) There is a change in environmental conditions or project activities that were assumed in the EIS, such that original predictions of the extent of adverse environmental impacts may be too limited.

(2) The outcome of the mitigation measure is uncertain, such as in the case of the application of new technology.

(3) Major environmental controversy remains associated with the selected alternative.

(4) Failure of a mitigation measure, or other unforeseen circumstances, could result in serious harm to federal-or state-listed endangered or threatened species; important historic or archaeological sites that are either on, or meet eligibility requirements for nomination to the National Register of Historic Places; wilderness areas, wild and scenic rivers, or other public or private protected resources. Evaluation and determination of what constitutes serious harm must be made in coordination with the appropriate federal, state, or local agency responsible for each particular program.

(e) Five basic considerations affect the establishment of monitoring programs:

(1) *Legal requirements.* Permits for some actions will require that a monitoring system be established (for example, dredge and fill permits from the USACE). These permits will generally require both enforcement and effectiveness monitoring programs.

(2) *Protected resources.* These include federal-or state-listed endangered or threatened species, important historic or archaeological sites (whether or not these are listed or eligible for listing on the National Register of Historic Places), wilderness areas, wild and scenic rivers, and other public or private protected resources. Private protected resources include areas such as Audubon Society Refuges, Nature Conservancy lands, or any other land that would be protected by law if it were under government ownership, but is privately owned. If any of these resources are affected, an effectiveness and enforcement-monitoring program must be undertaken in conjunction with the federal, state, or local agency that manages the type of resource.

(3) *Major environmental controversy.* If a controversy remains regarding the effect of an action or the effectiveness of a mitigation, an enforcement and effectiveness monitoring program must be undertaken. Controversy includes not only scientific disagreement about the mitigation's effectiveness, but also public interest or debate.

(4) *Mitigation outcome.* The probability of the mitigation's success must be carefully considered. The proponent must know if the mitigation has been successful elsewhere. The validity of the outcome should be confirmed by expert opinion. However, the proponent should note that a certain technique, such as artificial seeding with the natural vegetation, which may have worked successfully in one area, may not work in another.

(5) *Changed conditions.* The final consideration is whether any condition, such as the environmental setting, has changed (for example, a change in local land use around the area, or a change in project activities, such as increased amount of acreage being used or an increased movement of troops). Such changes will require preparation of a supplemental document (see §§651.5(g) and 651.24) and additional monitoring. If none of these conditions are met (that is, requirement by law, protected resources, no major controversy is involved, effectiveness of the mitigation is known, and the environmental or project conditions have not changed), then only an enforcement monitoring program is needed. Otherwise, both an enforcement and effectiveness monitoring program will be required.

(f) Enforcement monitoring program. The development of an enforcement monitoring program is governed by who will actually perform the mitigation; a contractor, a cooperating agency, or an in-house (Army) lead agency. The lead agency is ultimately responsible for performing any mitigation activities.

(1) *Contract performance.* Several provisions must be made in work to be performed by contract. The lead agency must ensure that contract provisions include the performance of the mitigation activity and that penalty clauses are written into the contracts. It must provide for timely inspection of the mitigation measures and is responsible for enforcing all contract provision.

(2) *Cooperating agency performance.* The lead agency must ensure that, if a cooperating agency performs the work, it understands its role in the mitigation. The lead agency must determine and agree upon how the mitigation measures will be funded. It must also ensure that any necessary formal paperwork such as cooperating agreements is complete.

(3) *Lead agency performance.* If the lead agency performs the mitigation, the proponent must ensure that needed tasks are performed, provide appropriate funding in the project budget, arrange for necessary manpower allocations, and make any necessary changes in the agency (installation) regulations (such as environmental or range regulations).

(g) Effectiveness monitoring. Effectiveness monitoring is often difficult to establish. The first step is to determine what must be monitored, based on criteria discussed during the establishment of the system; for example, the legal requirements, protected resources, area of controversy, known effectiveness, or changed conditions. Initially, this can be a very broad statement, such as reduction of impacts on a particular stream by a combination of replanting, erosion control devices, and range regulations. The next step is finding the expertise necessary to establish the monitoring system. The expertise may be available on-post or may be obtained from an outside source. After a source of expertise is located, the program can be established using the following criteria:

(1) Any technical parameters used must be measurable; for example, the monitoring program must be quantitative and statistically sound.

(2) A baseline study must be completed before the monitoring begins in order to identify the actual state of the system prior to any disturbance.

(3) The monitoring system must have a control, so that it can isolate the effects of the mitigation procedures from effects originating outside the action.

(4) The system's parameters and means of measuring them must be replicable.

(5) Parameter results must be available in a timely manner so that the decision maker can take any necessary corrective action before the effects are irreversible.

(6) Not every mitigation has to be monitored separately. The effectiveness of several mitigation actions can be determined by one measurable parameter. For example, the turbidity measurement from a stream can include the combined effectiveness of mitigation actions such as reseeding, maneuver restrictions, and erosion control devices. However, if a method combines several parameters and a critical change is noted, each mitigation measurement must be examined to determine the problem.

## APPENDIX D TO PART 651—PUBLIC PARTICIPATION PLAN

The objective of the plan will be to encourage the full and open discussion of issues related to Army actions. Some NEPA actions will be very limited in scope, and may not require full public participation and involvement. Other NEPA actions will obviously be of interest, not only to the local community, but to others across the country as well.

(a) To accomplish this objective, the plan will require:

(1) Dissemination of information to local and installation communities through such means as news releases to local media, announcements to local citizens groups, and Commander's letters. Such information may be subject to Freedom of Information Act and operations security review.

(2) The invitation of public comments through two-way communication channels that will be kept open through various means.

(3) The use of fully informed public affairs officers at all levels.

(4) Preparation of EAs which incorporate public involvement processes whenever appropriate (40 CFR 1506.6).

(5) Consultation of persons and agencies such as:

(i) Municipal, township, and county elected and appointed officials.

(ii) Tribal, state, county, and local government officials and administrative personnel whose official duties include responsibility for activities or components of the affected environment related to the proposed Army action.

(iii) Local and regional administrators of other federal agencies or commissions that may either control resources potentially affected by the proposed action (for example, the U.S. Fish and Wildlife Service) or who may be aware of other actions by different federal agencies whose effects must be considered with the proposed Army action (for example, the GSA).

(iv) Members of identifiable population segments within the potentially affected environments, whether or not they have clearly identifiable leaders or an established organization such as farmers and ranchers, homeowners, small business owners, and Native Americans.

(v) Members and officials of those identifiable interest groups of local or national scope that may have an interest in the environmental effects of the proposed action or activity (for example, hunters and fishermen, Isaak Walton League, Sierra Club, and the Audubon Society).

(vi) Any person or group that has specifically requested involvement in the specific action or similar actions.

(b) Public involvement should be solicited using the following processes and procedures:

(1) Direct individual contact. Such limited contact may suffice for all required public involvement, when the expected environmental effect is of a very limited scope. This contact should identify:

(i) Persons expected to express an opinion and later participate.

(ii) Preliminary positions of such persons on the scope of issues that the analysis must address.

(2) Small workshops or discussion groups.

(3) Larger public gatherings that are held after some formulation of the potential issues, inviting the public to express views on the proposed courses of action. Public suggestions or additional alternative courses