

such properties, the protective structures shall meet the following minimum functional requirements:

(i) In urban communities or other areas of highly concentrated developments where overtopping of levees would result in major hazards to life or unusually severe property damage under anticipated future conditions, levee grades and designs shall be adequate to withstand without failure the occurrence of the standard project flood, assuming the reservoir is filled to highest level that is reasonably likely to prevail at the beginning of such a flood.

(ii) Under circumstances where it can be reasonably shown that possible overtopping of protective levees or flood walls as proposed would not result in unusual hazards to life or major property damage, levee grades shall be as high as economically practicable in consideration of apparent risks and costs involved, and flowage easements or other appropriate assurances from local interests shall be obtained insofar as necessary to protect the Government in the event the protective structures are overtopped.

§ 644.5 Mineral Acquisition Practices.

(a) *Procedure.* The procedure of the Corps of Engineers in acquiring the necessary land or interests therein to accommodate projects authorized by the Congress is to permit the reservation of the minerals in the land, unless the reservation is inimical to the operation of the project. In all cases where in a reservation is permitted, the mineral interests are subordinated to the primary project purposes, including public access and preservation of environmental quality.

(b) *General.* (1) The multiplicity of ownerships in mineral interests, the variety of minerals and the different methods of mineral exploration, recovery and production make it impracticable to define in advance specific guidelines concerning the reservation of mineral interests and their subordination to primary project purposes in any given project. The initial planning documents, real estate design memoranda, and master plans will fully discuss and consider the extent of acquisi-

tion and/or reservation of mineral interests.

(2) Generally fee title to all subsurface interests will be acquired in areas required for all structures, areas required for project operations and public use including access, and in areas where the value of the subsurface interests is nominal. Reservation of coal, oil, gas and other minerals will be permitted whenever any aspect of mineral development will not interfere with project purposes. The reservation of mineral rights will be predicated upon the Government's right to so regulate their development as to eliminate any interference with project purposes and to minimize any adverse impact on the environment including aesthetic values.

(c) *Reservation of Minerals.* (1) When it has been determined that the reservation of minerals will not interfere with the purposes of the project, the minerals will be subordinated in accordance with the following guidelines:

(i) The estate providing for the subordination will not be utilized unless approved by HQDA (DAEN-REA).

(ii) Any subordination agreement, together with additional regulations incorporated by reference, must clearly define:

(A) The rights and obligations of the Government and the mineral owner, operator, and/or lessee.

(B) The control to be exercised over site development for mining purposes.

(C) Required land reclamation or restoration.

(D) Restrictions against pollution and degradation of project environment and aesthetics.

(E) Provisions for compliance inspection by the Government of all site development and mining activities over which the Government has control under paragraph (c)(1)(ii)(B) of this section.

(2) After execution of a subordination agreement as provided above, the District Engineer will develop a program for the surveillance of mineral activities at each project.

(3) The representatives of the Division and District Engineers are to be fully informed concerning the rights and responsibilities of the Government and the mineral owner and/or operator

under the terms of the estates acquired for the subordination of minerals, and will periodically inspect all mining activities to insure compliance with the terms of the subordination agreement and any plan incorporated by reference into such agreement.

(d) *Off-Project Mineral Activity.* In connection with all drainage basins, where there is present or potential mineral activity upstream from a project or nearby lands outside the project limits, the District Engineer will:

(1) Establish and maintain liaison with Federal and State agencies having responsibility for the regulation of mineral activities and the control of environment in order to prevent adverse effects of mining on the project.

(2) Institute a system for monitoring adverse effects on the project such as sedimentation and acid drainage.

(3) Take steps to insure that Corps personnel in charge of the project are familiar with State and Federal laws governing the control of mineral recovery and the environment, as well as the Federal or State agencies responsible for the enforcement of such laws.

(4) Division and District Engineers are requested to use the Refuse Act of 1899 and any other legal remedies that may be appropriate in a particular situation in order to protect the interests of the United States and preserve the integrity of the project.

§ 644.6 Feasibility Reports and Design Memoranda.

(a) *Feasibility Investigations and Reports.* Survey investigations and reports are the studies and reports, specifically authorized by Congress and made by Division and District Engineers as assigned by the Chief of Engineers, to determine the scope, justification, and degree of Federal interest in protection and development of harbors, waterways, shores and beaches, and river basins. For water resource projects the reports include determination of needs of alternative plans of protection and development to be considered for recommendation to Congress for authorization as Federal projects. Survey reports should clearly specify real estate requirements, both immediate and prospective, and the responsibilities of Federal and non-Fed-

eral agencies relative thereto. The real estate estimates in the reports should be recent enough to be meaningful for the purpose intended. Documentation regarding the estimates, such as when and by whom made, nature and extent of field investigation, search for comparable sales and similar factual material, shall be maintained.

(b) *Phase I and Phase II General Design Memoranda.* (1) The General Design Memorandum (GDM) is a report on an authorized project. Its form and content are set forth in ER 1110-2-1150. It includes a real estate section, which consists of a general discussion of real estate requirements for the project, recommendations as to estates to be acquired, a gross appraisal of the necessary land and interests therein, and other features considered desirable to present all major real estate problems and to recommend solutions. Subject to the availability of data, minerals in the project area should be covered in the manner set forth in § 644.5. Detailed sales data are not necessary, but may be included if it is anticipated that recommendations will be made for early acquisition of interior tracts.

(2) Real Estate personnel will prepare the real estate section of the GDM. The requirements for current real estate estimates and necessary documentation thereof contained in § 644.6(a) are also applicable to this paragraph.

(c) *Real Estate Design Memoranda.* (1) Following approval of the Phase I GDM, a Real Estate Design Memorandum (REDM) will be prepared by the Division or District Engineer. Approval of the REDM shall be in accordance with ER 1110-2-1150, para 21b(2)(j). No land shall be acquired for the project without approval of the initial REDM except (i) in the case of an advance land acquisition situation, (ii) acquisition for local cooperation project, or (iii) when a letter-type REDM has been submitted. The REDM will include the following in the order set forth below:

(A) A statement that this REDM is tentative in nature for planning purposes only and that both the final real property acquisition lines and the estimate of value are subject to change even after approval of this REDM.