

INTEGRATING ENVIRONMENTAL IMPACT ASSESSMENT WITH MASTER PLANNING AT ARMY INSTALLATIONS

**Elizabeth Keysar, Anne Steinemann, and Ron Webster
May 2002**

AEPI-IFP-0902A

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
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1. REPORT DATE (DD-MM-YYYY) May 2002		2. REPORT TYPE		3. DATES COVERED (From - To)
4. TITLE AND SUBTITLE Integrating Environmental Impact Assessment with Master Planning at Army Installations			5a. CONTRACT NUMBER	
			5b. GRANT NUMBER	
			5c. PROGRAM ELEMENT NUMBER	
			5d. PROJECT NUMBER	
			5e. TASK NUMBER	
			5f. WORK UNIT NUMBER	
6. AUTHOR(S) Elizabeth Keysar, Anne Steinemann, and Ron Webster				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Environmental Policy Institute Mr. Ron Webster 101 Marietta Street, NW, Suite 3120 Atlanta, Georgia 30303-2711			10. SPONSOR/MONITOR'S ACRONYM(S) AEPI	
			11. SPONSOR/MONITOR'S REPORT NUMBER(S) AEPI-IFP-0902A	
12. DISTRIBUTION/AVAILABILITY STATEMENT Distribution Statement A: Approved for public release. Distribution is unlimited.				
13. SUPPLEMENTARY NOTES				
14. ABSTRACT Current Army compliance with the National Environmental Policy Act (NEPA) is largely procedural in focus. In addition, much like other federal agencies, the Army typically conducts environmental impact assessment (EIA) for individual projects, rather than for long-range plans, where earlier and more strategic decisions are made. Considering the established legal requirements and anticipated benefits from early integration, this research study was conducted to establish the extent of NEPA integration into Army installation master planning. The research also sought to identify factors that promote or inhibit integration. The research results demonstrated that concurrent preparation of master plans and their required NEPA document is the exception at Army installations. The research also demonstrated, however, that integration can be defined as something other than concurrent timing, based on the influence of the NEPA process on master planning and decision making. The results presented in this paper support continued efforts to encourage integration, as early and effective integration of EIA into master planning can improve organizational outcomes such as support for the installation mission and NEPA compliance.				
15. SUBJECT TERMS NEPA, master planning, Environmental Impact Assessment, best practices, integration				
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES 62
a. REPORT	b. ABSTRACT	c. THIS PAGE		
Unclassified	Unclassified	Unclassified		19a. NAME OF RESPONSIBLE PERSON Mr. Ron Webster
				19b. TELEPHONE NUMBER (Include area code) (404) 524-9364

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Abstract

Current Army compliance with the National Environmental Policy Act (NEPA) is largely procedural in focus. In addition, much like other federal agencies, the Army typically conducts environmental impact assessment (EIA) for individual projects, rather than for long-range plans, where earlier and more strategic decisions are made. Considering the established legal requirements and anticipated benefits from early integration, this research study was conducted to establish the extent of NEPA integration into Army installation master planning. The research also sought to identify factors that promote or inhibit integration. The research results demonstrated that *concurrent* preparation of master plans and their required NEPA document is the exception at Army installations. The research also demonstrated, however, that integration can be defined as something other than concurrent timing, based on the influence of the NEPA process on master planning and decision making. The results presented in this paper support continued efforts to encourage integration, as early and effective integration of EIA into master planning can improve organizational outcomes such as support for the installation mission and NEPA compliance.

Acknowledgments

This research was supported in part by an appointment to the Student Environmental Management Participation Program at the U.S. Army Environmental Center (USAEC) administered by the Oak Ridge Institute for Science and Education through an interagency agreement between the U.S. Department of Energy and USAEC. This research also received support in part from the National Science Foundation grant CMS 9874391.

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Acronyms

AR	Army Regulation
CEQ	Council on Environmental Quality
CIS	Capital Investment Strategy
COA	Course of action
DoD	Department of Defense
DOPAA	Description of the proposed action and alternatives
DPW	Department of Public Works
EA	Environmental Assessment
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EPR	Environmental program requirements
GIS	Geographic Information Systems
HQ	Department of the Army Headquarters
LRC	Long-Range Component
MACOM	Major Command
NEPA	National Environmental Policy Act
NGB	National Guard Bureau
RPPB	Real Property Planning Board
RPMP	Real Property Master Plan
SEA	Strategic Environmental Assessment
SRC	Short-Range Component
USACE	United States Army Corps of Engineers
USARC	United States Army Reserve Command

1. Introduction

Current Army compliance with the National Environmental Policy Act (NEPA) is largely procedural in focus. In addition, much like other federal agencies, the Army typically conducts environmental impact assessment (EIA) for individual projects rather than for long-range plans, where earlier and more strategic decisions are made. This conflicts with the Council of Environmental Quality (CEQ) implementing regulations (40 C.F.R. 1500 -1508) and Army Regulation (AR) 200-2, which require the consideration of environmental impacts early in the decision-making process.

Multiple benefits can be derived from such early integration, some of which are listed in the current draft revision of AR 200-2, *Environmental Analysis of Army Actions* (DoD 2000), as presented in Table 1.1 (see p. 2). Effective and early NEPA integration can significantly increase the utility¹ to the decision maker if environmental information can be provided to the correct individuals, at the right time, and in the right form. If such utility can be realized, the multiple dollars and hours of staff time will be spent more efficiently and effectively, improving organizational outcomes such as support for the installation mission and NEPA compliance.

Considering the established legal requirements for, and anticipated benefits from, early integration, this research study assessed the extent of NEPA integration into Army installation master planning. The research identified factors that promote or impede integration. These factors are presented in order to promote early integration and improve NEPA procedures at Army installations. Many Army installations prepare on-going mission or installation-wide NEPA documents as a reflection of need and utility, not a procedural requirement. This document, therefore, also seeks to promote such proactive approaches, further enabling installations' efforts to prepare such documents.

TABLE 1.1 Rationale for Early NEPA Integration into Army Planning

Avoiding delays in mission accomplishment
Efficient program or project execution later in the process
Identifying potentially controversial issues during the planning process
Identifying minor issues to reduce discussion and help focus analyses
Informing the decision maker of environmental consequences at the same time as other factors
Concurrent timing of permits and regulatory coordination
Provision of necessary feedback to effect adaptive environmental management
Cost savings through tiering (economies of scale, incorporating by reference, minimize effort spent on individual projects, eliminate the need for case-by-case analyses and documentation for construction projects)
Ensuring that the recommendations and mitigations upon which the decision was based are being carried out
Ensuring that environmental values are integrated into Army planning and decisions
Preventing disruptions in the decision-making process

Presented in Army Regulation 200-2 Environmental Analysis of Army Actions, Proposed Rule (DoD 2000)

For the purposes of this study, the initial measure of “integration” was based on timing: a *concurrent* preparation of the installation master plan and its requisite NEPA document² would indicate successful integration, and, in contrast, NEPA documents prepared *after* completion of the installation master plan would not. This is based on the following conceptualization: environmental documents prepared concurrently with the master plan can influence and modify strategic land use decisions, whereas environmental documents prepared after the master plan would have little influence on strategic decisions already made. The research results indicated this level of integration is the *exception* at Army installations, as only one of the sixteen examined cases demonstrated this level of integration.

The research results also demonstrated that the conceptualization of integration based on concurrent timing, although significant, is inadequate. Integration can also be viewed as the *influence* of the EIA process on installation planning and decision making. In other words, the NEPA and planning documents do not have to be prepared concurrently for elements of integration to occur. Both dimensions of integration (timing and influence) are concerned with how environmental analyses can inform and change agency planning and decision making, not only the plans and projects that stem from them. Data collected through the

interview phase of this research presented many examples of successful integration based on this second conceptualization of the definition of integration.

The research results are presented as follows: Chapter 2 presents a review of literature regarding postulated factors that impede the integration of EIA and agency planning. Chapter 3 provides the relevant content of the applicable Army regulations. First, the master planning regulations are detailed to establish the organizational planning process, and second, Army NEPA regulations are reviewed to examine the guidance that facilitates integration. Chapter 4 details the research methods. The principle method used was a comprehensive case study, including document review and semi-structured interviews. The research data is organized based on recurring themes, highlighting factors that promote or impede NEPA integration within master planning, and these results are presented in Chapter 5. Chapter 6 presents recommendations to address the issues raised through the research, and general conclusions are presented in Chapter 7.

2. NEPA and Planning

There are many postulated reasons for the lack of full NEPA integration with agency planning. Organizational, analytical, or political reasons can often “tip the balance toward project-level rather than strategic-level” NEPA analysis (Shepherd and Simm 1997: 4), as well as proponent incentives and agency legal interpretation of NEPA requirements. Table 2.1 (see P. 6) summarizes many of these reasons, which were used to formulate research questions and develop the case study protocol.

The concept of Strategic Environmental Assessment (SEA) has evolved to address the need for early and useful integration of EIA into agency strategic planning. Strategic planning is the “extent to which agencies integrate NEPA’s framework for collaboration into their internal planning process at an early stage” (CEQ 1997:11). SEA refers to initial environmental impact assessment for policies, plans, and programs at the earliest possible stage (Partidário 1996). There is extensive literature on the potential benefits of SEA,³ and review of this literature provides a useful background on both the benefits and problems of NEPA integration into early agency planning.

Army land use planning, the subject of this paper, focuses on a different, lower level of agency decision making than commonly associated with SEA. SEA can be viewed as the “internal” formulation and assessment of alternative strategies, or courses of action (COAs), often prior to the formal NEPA process (a level at which the “purpose and need” for some action is being formulated and the description of reasonable and practical alternatives is being defined). There are many strategic decisions made at the Major Command (MACOM) and Department of the Army Headquarters (HQ) level that influence installation-level activity, such as decisions that establish stationing strength and assignment of tenant organizations, for which SEA is applicable. This paper does not address this level of decision making. Rather, this research focuses on the land use planning associated with on-going activities at the installation level. This installation master planning process is a policy and project level hybrid.

TABLE 2.1 Reasons Postulated for Lack of Early Integration of EIA with Agency Planning

Scope of strategic decision difficult to define and analyze
Detailed EIA difficult to produce for early, conceptual, or strategic decisions
Fear of producing an EIA document that is not legally acceptable for lack of detail
Fear of litigation, delays, and increased costs
Agencies retain discretion when to start EIA
Not likely to be sued if EIA not conducted early in the process
Reluctance to disclose entire scope of proposed policies and plans
Impacts appear less significant for projects than for policies and plans
Cumulative effects difficult to fully assess
Reluctance to start EIA until project well-defined and likely to be approved
Funding to conduct EIA for projects, rather than policies and plans
Inadequate communication among environmental staff and planning staff
Environmental objectives not given same importance as other strategic criteria
Use of EIA as a decision-justification tool
Lack of organizational support for early integration
Lack of methods and expertise
Unfamiliarity with strategic or programmatic EIAs
Standard EA/EIS process not suited to iterative nature of planning
Reluctance to open up internal workings to public scrutiny
Detachment of decision-makers from EIA process

Based on Partidário 1996, Eccleston 1999, Weiner 1997, CEQ 1997, Shepherd and Simm 1997, Andrews 1997, Ensminger and McLean 1993, Ortolano 1993, Ortolano and Shepherd 1995, Kreske, 1996, and Clark and Canter 1997.

Early environmental assessment at the strategic or planning level is the subject of some vagueness in the CEQ regulations, which inhibits early agency implementation of the NEPA process. Agency interpretation often results in the belief that NEPA cannot be applied without a “detailed proposal” and, inevitably, agency reaction “reflects a fear that microscopic detail will be expected, even when such depth of analysis is not possible that early in the proposal development stage” (CEQ 1997:11). This resultant focus on analysis of impacts at the *project* stage, when one or more alternative means of accomplishing that goal can be meaningfully evaluated,⁴ is not conducive to planning or strategic level assessment, a stage at which alternative trade-offs might prove more valuable. NEPA and the CEQ regulations allow considerable agency discretion in

identifying decision points for NEPA consideration, based on the point in time at which such a decision commits agency resources in such a way that viable alternatives are ruled out.

Ultimately, the compliance-driven legal or procedural requirements for early NEPA integration are less compelling than the incentives to improve the efficiency and effectiveness of agency decision making. While NEPA case law supports the importance and usefulness of early integration (such as the applicability of programmatic documents, misguided use of segmentation, and insufficient coverage of cumulative impacts), it does not specifically address the relationship between NEPA and planning.⁵

3. Army Regulations

3.1 Installation Master Planning and Plans

To provide an understanding of the planning process that is the subject of this research, this section briefly describes AR 210-20 *Master Planning For Army Installations* (1993). This regulation details a systematic planning process for installation-level management, and the outcome of the process is the Real Property Master Plan (RPMP).

The master planning process and resulting RPMP are designed to “chart a long-term investment strategy for achieving the installation commander’s goals for providing excellent facilities and services for soldiers and their families, while supporting the Army’s vision for current and future missions” (AR 210-20: 2-1 [c]). An installation is similar to a small city, and the installation commander is similar to a mayor. The master planning regulation establishes the Real Property Planning Board (RPPB). This board advises the commander on long-range and short-range comprehensive planning issues, facilitates coordination and communication among the multiple functional units and tenants at an installation, and recommends approval for all aspects of the RPMP.⁶

The Real Property Master Plan provides an opportunity for strategic and early integration of NEPA analysis.⁷ The RPMP forms the basis for both long-range and short-range decisions, and incorporates other plans for the installation.⁸ The Long-Range Component (LRC) of the RPMP requires the collection of existing baseline information and a description of the ongoing mission requirements.⁹ This tabulated, graphic, and narrative baseline information is used to identify the gaps or shortfalls in facilities in order to guide future investment of funds. The plan for future investment is the Capital Investment Strategy (CIS), which compares alternative methods for meeting the installation facility needs. The LRC and CIS are used to identify and prioritize specific projects. The Short-Range Component (SRC) of the RPMP typically includes a list of proposed projects and actions requiring funding.

The master plans must be maintained and continually adapted to reflect changes in installation mission established by the Army Stationing and Installation Plan, or other requirements established through MACOMs and HQ. In the absence of major strength or mission changes, or direction by the MACOM, the plan must then be revised at least every ten years (AR 210-10: 3-10). Properly implemented, one result of an *effective* RPMP is “[i]dentifying, protecting and enhancing natural, cultural and environmental resources, identifying environmental consequences of actions and environmental compliance issues, and providing good stewardship of the environment” (Ibid.: 2-5 [c]).

3.2 Army NEPA Regulations and Army NEPA Policy

In addition to the NEPA implementing guidance issued by CEQ (1986), federal agencies are required to develop their own NEPA implementing regulations.¹⁰ This section provides an overview of the Army’s NEPA regulation and policy, which establishes the formal context for installation procedures and for compliance as it relates to the integration of NEPA analysis and master planning.

The Army’s NEPA implementing regulation, AR 200-2 *Environmental Effects of Army Actions* (1988), seeks to “set forth policy, responsibilities, and procedures for the integration of environmental considerations into Army planning and decision-making” (1-1). The regulation further states that the “Army will integrate NEPA requirements with other planning and environmental review procedures required by law or other Army practice so that review of environmental considerations is concurrent rather than consecutive” (1-5 b(2)). Section 2-6, titled “Integration with Army planning,” describes techniques to enhance early integration, including programmatic environmental review and tiering. For instance, “Installation and Army Master Planning functions and plans” are noted as types of actions for which the environmental analyses required by AR 200-2 “will be integrated as much as practicable” (2-6 e(4)). Furthermore, the regulation states that the development of an installation master plan is an action normally requiring NEPA analysis (5-3 j).

This regulation is currently being revised and will be superceded by AR 200-2 *Environmental Analysis of Army Actions* (DoD 2000). Comparison of the current and proposed regulations reveals the areas of concern to the Army, as these areas have been modified or emphasized in the revision. The revised regulation follows the framework and intent of the current version, yet it provides expanded descriptions in most sections. Extensive and additional details appear—for instance, in the definition of roles and responsibilities for Army staff and the NEPA proponents, the definition of NEPA responsibilities of the Army acquisition community, and the list of categorical exclusions. Additional details also clarify issues of funding for NEPA document preparation and mitigation measures, the role of contractors, and supplemental documentation.

Notably, the revision provides more emphasis and detailed regulations for integration with master planning. The section on “Integration with Army planning”¹¹ details the benefits of early integration. These benefits formed the basis of some of the research questions posed by this study, as these potential outcomes can be viewed as incentives to promote early integration. These benefits, which mirrored others proposed in the literature, are summarized in Table 1.1.¹²

In reviewing Army and CEQ regulations, an important point emerges: NEPA is required for “proposals”¹³ and “formal plans,”¹⁴ but the point at which a “decision” is made at the planning level is less clear. In the absence of a concrete, written master plan – which can be identified as a “decision document” – it is difficult to ascertain when environmental analysis is required.

Current Army policy requires NEPA analysis for installation master plans, but policy is generally unclear regarding planning-level analysis, which precedes the consideration of specific projects, a situation typically described as “ongoing mission” EAs or EISs. Neither the current nor the revised regulations specify firm criteria for determining when conditions exist (or have changed enough) to require NEPA analysis—for instance, when there is “new” management or when ongoing installation activities and programs

have changed significantly (for example: mission change, realignment of installation functions, new stationing plans, or when multiple revisions and modifications to the master plan have been made).¹⁵ The lack of clarity about a “decision” is further complicated by the iterative nature of planning and decision making at Army installations.

Based on current formal Army policy, the Army does not regularly perform NEPA analysis for ongoing missions, based on the premise that “no decision is being made.” Thus, in the absence of written master plans, an installation has few other mechanisms available to perform a strategic or programmatic NEPA analysis at the planning stage. While the CEQ regulations and the Army NEPA regulations both describe the process and utility of a programmatic document, the regulations only suggest when such an approach would apply.¹⁶ Moreover, the regulations do little to distinguish between a *planning* NEPA document and a *programmatic* NEPA document. Thus, it may appear that without clear guidance or legal mandates, the Army installations have little incentive to prepare a NEPA document at the planning level. Yet cases exist where the Army has integrated NEPA, to some extent, with planning activities and prepared programmatic NEPA documents on land use. These issues provide a basis for this research.

4. Research Methods

This study investigated two primary issues: (1) the extent to which NEPA and master planning processes are integrated at Army installations, and (2) the factors that promote or impede such integration. The research progressed in four phases over two years (2000-2001), and each phase is detailed herein.

Phase One involved a review and analysis of Army NEPA and master planning regulations and the scholarly literature on NEPA integration with agency planning. This phase also included an initial round of interviews with Army environmental and planning personnel. These activities served to establish the case study protocol, including the structure and content for the interviews, the framework for analyzing the NEPA planning documents, the criteria by which to identify potential cases, and criteria to select the final set of cases.

Phase Two was the process of case study selection. A “case” corresponds to an individual installation and includes the NEPA document and interview data from personnel who were interviewed. Cases were pursued for installations for which a NEPA document on a master plan was prepared during the past five years. For this initial set, twenty potential cases were identified based on information provided by Army NEPA coordinators, and subsequently investigated to determine (1) the availability of the NEPA document, and (2) the availability of installation personnel involved with the preparation and use of the documents. Both conditions needed to be met for a potential case to be selected. The final set of cases includes six of these installations.¹⁷

The process of case study selection soon revealed that few cases would fit the initial specification of having a NEPA document written for an installation master plan within the past five years. Thus, other recent cases of NEPA documents for Army land use planning were also pursued. These additional cases were incorporated in order to reflect the full range of NEPA within Armywide land use planning, rather than just for an individual master plan. Based on this criterion, eight additional cases were added.¹⁸

Care was taken to insure that the selection of cases represented each of the fifteen MACOMs. MACOMs provide oversight and funding for installation master planning and NEPA programs and therefore impact the policies and procedures at the installation level. Based on possible variation between MACOMs, the case selection process attempted to avoid over-representing any particular MACOM. Efforts were made to determine the state of NEPA practice within land use planning for those MACOMs that manage real estate, and to appropriately represent these activities. In order to provide a balanced treatment of MACOMs, two cases were added to complete the set of case studies analyzed.¹⁹

Thus, a total of sixteen installations were selected for the final set of cases (Table 4.1). Characteristics of these installations are presented in Table 4.2 (see p. 17), which specifies each case in terms of size in land area, size of military population, size of civilian population, and major tenants.

Table 4.1 Case List

INSTALLATION	TITLE/DATE/PROPONENT	PROPOSED ACTION
Aberdeen Proving Ground, Maryland	Proving Ground-Wide Environmental Impact Statement currently in preparation.	Not Available
Fort Bliss, Texas and New Mexico	Fort Bliss, Texas and New Mexico, Mission and Master Plan Final Programmatic Environmental Impact Statement DECEMBER 2000 Directorate of the Environment, U.S. Army Air Defense Artillery Center and Fort Bliss	The proposed action is the continuation of ongoing mission and real estate actions with implementation of short-and long-term range plans and resource management plans. Also proposed is the use of an additional 13.5 square miles for field training and other potential training and installation capabilities.
Fort Carson, Colorado	Environmental Assessment (Programmatic) for Military Installation Land Use at 7 th Infantry Division and Fort Carson MARCH 2001 Department of the Army, Headquarters 7ID and Fort Carson, Fort Carson, Colorado	The 7 th ID and Fort Carson propose to use lands to support its military mission at Fort Carson. This land use can be generally divided into the following areas: training land use, range and land development, and mitigation of land use through environmental compliance, impact minimization, and stewardship

INSTALLATION	TITLE/DATE/PROPONENT	PROPOSED ACTION
		programs affecting land use.
Fort Drum, New York	Programmatic Environmental Assessment currently being prepared to address management plans and on-going mission.	Not Available
Dugway Proving Ground, Utah	Environmental Impact Statement for "Activities Associated with Future Programs" currently in preparation.	Not Available
Fort Huachuca, Arizona	Approval of Land Use and Real Estate Investment Strategies In Support of Real Property Master Planning, Fort Huachuca, Arizona, Final Environmental Impact Statement MAY 1999 Environmental and Natural Resources Division, Directorate of Installation Support, U.S. Army Garrison, Fort Huachuca	The proposed action is to approve the three RPMP updates (LRC, SRC, and CIS) and authorize the steps leading to project implementation.
Fort Jackson, South Carolina	Environmental Assessment Master Plan and Ongoing Mission, US Army Training Center and Fort Jackson FEBRUARY 2000 US Army Training Center and Fort Jackson, South Carolina	The proposed action is to implement the Fort Jackson Installation Real Property Master Plan including its component plans. In addition, the EA describes and provides a programmatic evaluation of a broad range of Contributing Plans and Ongoing and New Mission Activities.
Fort Leavenworth, Kansas	Installation Environmental Assessment of the Ongoing Mission Operations/Master Plan, Fort Leavenworth, Kansas JUNE 2000 US Army Combined Arms Command, Fort Leavenworth	The proposed action is full implementation of the master plan projects and its associated component plans, as well as the continuation of current daily operations.
New Mexico Army National Guard, New Mexico	MACOM is currently not preparing EA/EISs for Real Property Development Plans.	Not Applicable
Parks Reserve Forces Training Area, California	(Administrative Draft) Environmental Assessment of the Electronic Master Plan for Parks Reserve Forces Training Area SEPTEMBER 1998 Parks Reserve Forces Training Area Environmental Division, Dublin, CA	The proposed action is implementation of the Electronic Master Plan; the SRC and LRC include 49 construction projects.
Redstone Arsenal, Alabama	This installation currently completes environmental impact assessments on projects and individual plans. An Environmental Assessment for Master	Not Applicable

INSTALLATION	TITLE/DATE/PROPONENT	PROPOSED ACTION
	Plan Implementation was prepared in 1994.	
Fort Richardson, Alaska	Environmental impact assessment at this installation is currently completed on projects or individual plans.	Not Applicable
Fort Riley, Kansas	<p>Programmatic Environmental Assessment for the Real Property Master Plan, Fort Riley, Kansas JUNE 2001</p> <p>U.S. Army Engineer District, Kansas City, Kansas</p>	The proposed action is to implement the Fort Riley Installation Real Property Master Plan including its Component Plans. In addition, the Environmental Assessment describes and provides a programmatic evaluation of a broad range of Contributing Plans and New Mission Activities.
Fort Sam Houston and Camp Bullis, Texas	<p>Fort Sam Houston and Camp Bullis Preliminary Draft Programmatic Environmental Impact Statement JULY 2000</p> <p>US Army Corps of Engineers, Fort Worth District, Fort Worth, Texas</p>	The proposed action is to implement revisions to the Land Use Plan resulting from the real property master planning process for FSH and Camp Bullis
White Sands Missile Range, New Mexico	<p>White Sands Missile Range Range-Wide Environmental Impact Statement JANUARY 1998</p> <p>Directorate of Environment and Safety, Environmental Services Division, WSMR, New Mexico</p>	The proposed action is the continuation of existing programs and the future testing of scientific, military, and commercial systems at WSMR with the proposed adoption of specific identified mitigation measures applicable to these existing and future programs.
Yuma Proving Ground, Arizona	<p>Draft Range Wide Environmental Impact Statement U.S. Army Yuma Proving Ground AUGUST 1998</p> <p>Command Technology Directorate, Environmental Sciences Division, U.S. Army Yuma Proving Ground</p>	The proposed action is the conversion of YPG beyond a traditional Army test installation to a diversified, multipurpose installation.

Table 4.2 Installation Characteristics

INSTALLATION TITLE, Location and Major Command	Size (acres)	Military Pop	Civilian Pop	MAJOR TENANT			
				Combat Units	Training Organizations	Research, Development, & Acquisition	Other
Aberdeen Proving Ground, Maryland ATEC	72,500	3,645	7,195		Army Ordnance Center and School	Aberdeen Test Center, HQ ATEC, Soldier and Biological Chemical Command	Army Environmental Center, Army Center for Health Promotion and Preventive Medicine
Fort Bliss, Texas and New Mexico TRADOC	1.2 million	12,000	7,500	11 th , 31 st , 35 th , and 108 th Air Defense Artillery Brigades	Sergeants Major Academy, Army Air Defense Artillery Center and School (6 th ADA Brigade)	ATEC	Joint Task Force 6
Fort Carson, Colorado FORSCOM	138,523	14,302	2,477	7 th Infantry Division, 3 rd Armored Cavalry Regiment, 10 th Special Forces Group, 3 rd Brigade of the 4 th Infantry Division	2 nd Brigade ROTC		
Fort Drum, New York FORSCOM	107,265	10,500	2,100	10 th Mountain Division			
Dugway Proving Ground, Utah ATEC	798,855	16	435			Dugway Proving Ground	
Fort Huachuca, Arizona TRADOC	73,242	5,878	2,426		Army Intelligence Center and School	Electronic Proving Ground	

INSTALLATION TITLE, Location and Major Command	Size (acres)	Military Pop	Civilian Pop	MAJOR TENANT			
				Combat Units	Training Organizations	Research, Development, & Acquisition	Other
Fort Jackson, South Carolina TRADOC	52,301	12,953	3,961		Basic Training, Soldier Support Institute, Chaplain Center and School		
Fort Leavenworth, Kansas TRADOC	5,600	3,024	2,109	35 th Infantry Division	Combined Arms Center, Command and General Staff College		U.S. Disciplinary Barracks
New Mexico Army National Guard* ARNG	26,000	3,148	153	111 th Air Defense Artillery Brigade			
Parks Reserve Forces Training Area, California** USARC	2,900	826	1546		USARC/ARNG Training		
Redstone Arsenal, Alabama AMC	37,910	1,798	14,966		Army Ordnance Missile and Munitions Center and School	HQ Aviation and Missile Command	
Fort Richardson, Alaska USARPAC	71,400	2,300	1,280				HQ, U.S. Army Alaska
Fort Riley, Kansas FORSCOM	100,656	10,530	3,626	1 st Brigade of the 1 st Infantry Division, 3 rd Brigade of the 1 st Armored Division, 24 th Infantry Division, 937 th Engineer Group			
Fort Sam Houston and Camp Bullis, Texas MEDCOM	31,109	10,090	8,754		Army Medical Department Center and School, 5 th Brigade ROTC		HQ MEDCOM

INSTALLATION TITLE, Location and Major Command	Size (acres)	Military Pop	Civilian Pop	MAJOR TENANT			
				Combat Units	Training Organizations	Research, Development, & Acquisition	Other
White Sands Missile Range, New Mexico ATEC	2 million	370	2,647			National Test Range	
Yuma Proving Ground, Arizona ATEC	1 million	310	1,400			Yuma Proving Ground	

Source: Army Green Book – Post and Installations, October 2000

ABBREVIATION KEY:

- ATEC – Army Test and Evaluation Command;
- TRADOC – Training and Doctrine Command;
- FORSCOM – Armed Forces Command;
- AMC – Army Materiel Command;
- MEDCOM – Army Medical Command;
- USARC – United States Army Reserve Command;
- USARPAC – United States Army Pacific Command;
- ARNG – Army National Guard;
- ROTC – Reserve Officer Training Corps

* Installation size and population data obtained from New Mexico Army National Guard representative.

** Installation size and population data obtained from the *Environmental Assessment for the Electronic Master Plan for Parks Reserve Forces Training Area (Administrative Draft)*, dated September 1998, prepared by U.S. Army Corps of Engineers Sacramento District.

Phase Three of the research involved semi-structured interviews with more than fifty individuals. Interview data were collected between August 2000 and June 2001. If requested, study participants were assured of confidentiality. The individuals of primary focus in the interview process were installation NEPA practitioners. These individuals work within the Environmental Office or Directorate at the installation, and usually have responsibility for installation-wide NEPA compliance. In addition to the NEPA practitioners, additional interviewees included installation- and MACOM-level master planners, MACOM-level NEPA coordinators, Army HQ-level NEPA coordinators and legal advisors, environmental policy advisors with the Army Environmental Policy Institute and the Army Environmental Center, and private consultants involved in the preparation of NEPA documents for the Army.

Phase Four of the research involved a more intensive review of the NEPA documents obtained from the various installations. The documents were analyzed to determine the timing of the publication, as compared to the publication of the master plan or related planning process. The contents of the documents were also examined to evaluate the framing of the proposed action, the alternatives developed, the definition of purpose and need, the impact analyses, and the final decisions. The interviews established the context in which the processes were occurring, as well as the perceived utility of the final documents. Analysis of the documents led to additional interview questions and contacts.²⁰ The third and fourth phases of the research overlapped to some extent, and were iterative in nature.

Research data on the timing (concurrency) of NEPA and master plan documentation is summarized in Table 5.1, organized into three categories that reflect, in a general sense, the extent of integration as reflected by timing. The research data were then analyzed to identify recurring themes, types of benefits resulting from NEPA integration into land use planning, factors that promoted or impeded integration, and other observations made by study participants to potentially explain the degree of NEPA integration at Army installations.

5. Results

5.1 Extent of Integration Based on Timing

For the initial purposes of this study, “integration” of environmental impact assessment and agency planning was based on timing: a *concurrent* preparation of the installation master plan (the RPMP) and its required NEPA document (an Environmental Assessment (EA) or Environmental Impact Statement (EIS)) would be an indication of successful integration, and, in contrast, a NEPA document prepared *after* the master plan would not. This is based on the following conceptualization: environmental documents prepared concurrently with the master plan can influence and modify strategic land use decisions, whereas environmental documents prepared after the master plan would have little influence on strategic decisions already made.

Results of the investigation of integration based on timing are presented in Table 5.1 (see p. 23). Of the installations²¹ for which NEPA documents on RPMPs, the RPMP process, or land use planning were obtained (or interview data were provided), *only one* case (Fort Riley) reflected concurrent preparation. A primary reason for Fort Riley’s success is that the installation NEPA proponent and the NEPA document contractor recognized benefits of concurrent preparation and were able to gain installation command support as a result. Other reasons for Fort Riley’s concurrent integration will be examined later.

Results presented in Table 5.1 also illustrate difficulties that installations encounter with master planning, and approaches they take to overcome these difficulties. Some have pursued a NEPA programmatic level assessment *after* a master plan or even *without* a master plan. As explained by one participant, “Usually a master plan is done first, but [we had] no master plan, so [we] made reference to the master planning process and tried to abide by the requirements of the master planning process.” Another participant said simply, “We have no master plan to integrate with!”²²

Conducting an EIA for a master planning *process* can pose challenges, such as defining the purpose and need for the proposed action. In one case (Ft. Leavenworth), the environmental office, recognizing the need for an updated planning EA, contracted a NEPA document (finished in 2000) for the installation master plan (dated 1984) using the same list of projects used in the earlier NEPA document (dated 1993), and expanded the scope of analyses to include “on-going mission operations.” In another case (Fort Sam Houston), the draft EIS states “the proposed action is to implement revisions to the plans within the real property master planning process.”

Several of the installations (White Sands Missile Range, Fort Bliss, Fort Jackson, Aberdeen Proving Ground, Yuma Proving Ground) prepared NEPA documents that went beyond master planning to reflect range-wide, proving ground-wide, mission, or ongoing mission, in the absence of a specific master plan or planning process. Other installations (Fort Carson, Dugway Proving Ground) prepared NEPA documents that evaluated land use activities more comprehensively than currently conducted through the master planning process. That installations will pursue NEPA, even in the absence of a master plan, points to the utility and need of a NEPA document to support installation planning.

TABLE 5.1 EAs/EISs That Address Master Plans, Land Use or Ongoing Mission

<p>CONCURRENTLY With the Master Plan</p>	<p>AFTER the Master Plan</p>	<p>WITHOUT a Master Plan</p>
<p>Fort Riley: The EA for implementation of the master plan was prepared simultaneously with the master plan.</p>	<p>Fort Bliss: Programmatic EIS for Mission and Master Plan provides framework for integrated land management and tiering for predicted future mission changes and expansions. Alternatives provide for <i>adoption</i> of the revised RPMP (1997), as well as component plans.</p> <p>Fort Jackson: Prepared an EA (2000) for implementing the master plan (written in 1993) and also to evaluate the ongoing-mission and component plans for coordination and baseline data purposes. The EA details a NEPA compliance procedure for future projects.</p> <p>Redstone Arsenal: Prepared an EA for <i>Master Plan Implementation</i> in 1994. This EA and a Current <i>Land Use Plan Revision</i> provide for coordination and baseline data purposes. EAs done for individual projects and component plans - these reference the 1994 document and the <i>Land Use Plan</i>.</p> <p>Fort Huachuca: Prepared an EIS (1999) based on installation stationing changes and master plan projects (master plan updates 1997). The analysis is cantonment focused.</p> <p>Parks Reserve Forces Training Area: Prepared an EA on the Electronic Master Plan list of projects.</p> <p>Fort Leavenworth: Prepared an updated EA in 2000 based on master plan (1984) list of projects.</p>	<p>White Sands Missile Range: Master planning process not adequate to cover installation activities, prepared a Range-Wide EIS to be more comprehensive. EIS meant to guide installation planning and activities, and provide baseline for tiering.</p> <p>Fort Carson: Programmatic EA on <i>Military Installation Land Use</i>, focuses on training lands. Expect to tier from this "baseline EA."</p> <p>Fort Sam Houston: Revisions to the <i>Land Use Plan</i> are being made, but no official "master plan" being written, the programmatic EIS evaluates the master planning <i>process</i>.</p> <p>Yuma Proving Ground: Range-Wide Environmental Impact Statement provides baseline data. The process provided improved range coordination and public relation functions. Final not yet approved, unable to tier until this happens.</p> <p>Aberdeen Proving Ground: Proving Ground-Wide EIS document in preparation since 1993. Waiting on approval of final draft, tenants need baseline data.</p> <p>Dugway Proving Ground: EIS for Activities Associated with Future Programs in preparation since 1993. Obtaining baseline data, waiting on approval of final draft.</p> <p>Fort Drum: Preparing a programmatic EA for implementation of management plans and ongoing mission.</p>

5.2 Extent of Integration Based on Influence

Although the timing question is revealing, the results are not clear-cut. This research uncovered a more complex relationship between NEPA compliance and agency planning. If integration can involve something more than concurrent preparation, then a more complete definition is needed. “Integration” can also be measured by the extent to which EIA exerts an *influence* on plans, projects, planning processes, or project proponents. In other words, the NEPA and planning documents do not have to be prepared concurrently for elements of integration to occur. Both dimensions of integration (timing and influence) are concerned with how environmental analyses can inform and change agency planning and decision making, not only the plans and projects that stem from them.

Although this research did not directly investigate whether outcomes were more environmentally sound because of EIA, it did show that EIA can and does influence decision making, and that concurrency alone is an insufficient measure of integration. These dimensions of influence are examined below.

5.2.1 Changes to the Master Plan and Planning

A direct indication of influence can be found in the changes to the RPMP as a result of the NEPA analysis. In the case of Fort Riley, participants indicated that, as a result of concurrent preparation, the master plan was improved and better siting decisions were made. Participants noted that “there have been things that have changed in the master plan as a result of the NEPA process,” that the process “helped to shape planning decisions,” and that “master planning benefited from the process of preparing the EA.” Fort Riley participants stressed that the concurrent preparation of the master plan and its NEPA document (an EA) were key to the quality of both documents, especially in developing alternatives and addressing cumulative impacts, and that “parallel pathways are absolutely necessary” in order to develop alternatives effectively.

In cases where NEPA documents were completed *after* or *without* master plans, participants made repeated observations that nonetheless connect the NEPA process to planning and decision-making processes. For instance, participants noted that “planning can be changed at the advice of the environmental staff,” that garrison staff is now “thinking of NEPA first, when before they didn’t,” and that the process “makes you think about the things you are supposed to think about.” One participant said that “now [we] have meetings and discuss [projects] in order to avoid impacts” and that the NEPA process helps the installation take a “longer view to foresee what issues you might get.” Another noted that, as a result of preparing a programmatic NEPA document on land use, the “environmental office is finally able to get a feel for what will be happening in the future,” and this is “helping to identify critical issues.” One participant described the influence through a procedure where “(1) the project gets on the drawing board, then (2) the master planners come in, and the environmental office helps with siting before any decisions are made.”

5.2.2 Increased Communication and Coordination

Another influence described by participants was improved communication and coordination between installation personnel and the environmental office. Participants expressed that master planners and environmental staff are now “on the same sheet of music,” or “in the same room at the same time” discussing future projects and environmental constraints. As one participant noted, “Now we understand a little better what each department has to do.” Other participants observed that the engineers and planners “now see the benefits of talking early” and that the environmental office and other units have “learned to work together with less distrust.” Participants added that many offices have moved “away from the opinion that the environment was the enemy,” and that educational efforts have helped “us learn what they’ve got to do, and them learn how we can help them.”

For example, the process of preparing a programmatic NEPA document on land use and mission at one installation (Yuma Proving Ground) led to intensive scoping, both internally and externally. As a result, “directors and program managers voiced future vision and future needs in the same room and a strategic plan came out of this.” The “air space,

artillery folks, range managers—all saw a reason to be communicating a little more” and the NEPA process “gave them a way to talk about the same places in a consistent form.”

One participant also stressed the improved communication with stakeholders *external* to the installation that resulted from the preparation of the installation-wide NEPA document. In this example, the participant indicated that the programmatic EIS involved the “first major attempt to involve the Native American community in decision making” and a “productive and useful dialog has resulted.”

5.2.3 Standardization and Streamlining of NEPA Compliance Procedures

In several cases (Fort Jackson, Fort Bliss, Fort Riley, White Sands Missile Range), the preparation of a NEPA document resulted in the delineation of NEPA compliance procedures within the document for project proponents to follow. These NEPA documents contained sections with a “how to” guide, describing the role of the programmatic document in “tiering” and “incorporating by reference” for future, project-specific NEPA documents. Flow charts and checklists were included in some of the NEPA documents to ensure that proper questions are asked, that proper individuals be consulted, and to determine what, if any, NEPA documents would be required for a particular action. The programmatic document thus became the mechanism to standardize NEPA compliance procedures for the entire installation, acting as a tool to streamline the process, focus discussion on major issues, ensure proper review and sign-off for each major resource area, and improve compliance with other environmental requirements.

5.2.4 Collection of Up-to-date Baseline Data

Essential to decision making at Army installations is the availability of accurate and current baseline information. The NEPA process provided an opportunity to acquire baseline data and to consolidate data in one place for improved access and dissemination. This consolidation also helped identify gaps in baseline information and determine future data collection needs, making more efficient use of limited data collection funds while informing

future decisions. The NEPA process provided funding to complete needed studies, and, in some cases, facilitated the creation of an installation Geographic Information System (GIS), or other forms of electronic data collection and information tracking. Even in cases where the final NEPA document had not yet been approved (Yuma, Dugway, Aberdeen), participants stressed the benefits of collecting information and baseline data as a result of preparing the programmatic NEPA documents.

5.3 Factors that Promote Integration

Integration, whether viewed as concurrence or influence, was motivated and created by a number of forces. Results from Fort Riley, together with observations from other installations that sought to complete NEPA documents for land use planning, were used to identify the factors that promoted integration of EIA with Army land use and master planning.

5.3.1 Comprehensive Planning

An important factor is a commitment to the completion of a full and formal master plan. The Fort Riley effort involved such a commitment—the installation focused on completing a long-term comprehensive plan. As the quality of the RPMP affects greatly the quality of the EIA, several participants stressed the importance of starting with a good master plan.

5.3.2 Utility of Planning Professionals

Competency in the planning process and a professional connection between planning personnel and environmental personnel are also important. At Fort Riley, a planning consultant, who was also an environmental consultant, prepared both documents—the Environmental Assessment and the Real Property Master Plan. The consultant was therefore knowledgeable about both processes, and that enabled integration. Participants in other cases also frequently mentioned the quality of the relationship between the environmental staff and planning staff as important in successful integration of EIA into on-

going installation activities. In addition, representatives from the Army Corps of Engineers (USACE) who assisted the Fort Riley effort had prior experience in preparing programmatic NEPA documents on master plans for other installations. Participants at Fort Riley indicated that “institutional guidance” and experience from USACE was important to their integration success.

5.3.3 Organizational Structure

Greater levels of integration appear to occur at installations where the environmental office is not subordinate to the public works organization. When discussing factors that influenced integration, participants stressed either the importance of having environmental and engineering directorates that are separate, or an environmental directorate at an equivalent (or greater) status than the engineering directorate. One participant described the successful integration of NEPA with planning and ongoing operations through the gradual strengthening of the environmental office from a subordinate position in public works, to being the largest division in public works, then removed from public works to form a separate directorate, and finally to the current status wherein public works is now subordinate to environment under a single directorate of Environmental Management. As a result of the environmental control and close interaction of these offices, “by the time [a project] gets to the document stage, most major constraints have been addressed.” At one installation where the directorates are separate, the Directorate of Public Works (DPW) “cannot go forward without the environmental side checked off.” A participant remarked that installations “need [an] equal platform for Directorate of the Environment and public works; when the environmental department reports to DPW the process is not as smooth.”

If the environmental office is subordinate to the engineering or public works directorate, environmental considerations often take a lesser role, relegated to a “compliance-only” approach. One participant complained that, because of the lack of organizational support (environmental offices are subordinate to engineering and master planning in this MACOM), “environmental people are not involved,” there is “no cooperation between environmental and engineering,” and there is a “lack of ownership and interest” in early and

useful integration of NEPA. Another noted that coordination between the environmental office and master planning can be easier and more productive with “close interaction and a helpful attitude,” regardless of organizational structure.

5.3.4 Command Support

The level of command support was repeatedly mentioned as a key factor for successful integration. At Fort Riley, the consultant, USACE representatives, and installation environmental staff successfully championed the concurrent, programmatic approach, and the installation command became supportive of the effort as a result. Participants from Fort Riley explained that gaining approval to proceed with “parallel tracking” of the RPMP and the programmatic NEPA document required “quite a sales pitch” to FORSCOM Headquarters and the installation commander. The “good sales pitch caused stable support and funding”; plus, there were “no approval problems because they had ‘buy-in’ from the beginning.” A participant also described a policy letter written by the commanding general “to everybody, all units, all tenants, stressing that NEPA is required and describing the things that initiate the process and who you need to talk to, etc.”

At another installation, a participant emphasized the need for “leadership at the installation level” in order to overcome the problem of “mission needs overwhelming the NEPA document process.” When “command interest is high, [the documents] go right through the approval process”; otherwise, the documents “sit on people’s desks.” Command support also leads to stable funding for the often lengthy and costly NEPA document process, and funding was noted as another important factor influencing the success of early integration. Participants at Fort Riley indicated that there were no funding issues associated with the preparation of the documents because of the command support. At another installation, a participant noted the success of integration was “mainly because of command support, coordination of the master planning and environmental offices, and the pressures of high volume of NEPA documents and environmental constraints.”

5.3.5 Understanding of NEPA as a Planning Tool

Effective integration also depends on understanding the usefulness of NEPA in planning. Several installations provided programmatic NEPA training to their environmental staff, master planners, or other command staff in an effort to provide a greater understanding of NEPA.²³ In some cases, the programmatic NEPA document preparation process involved the entire installation. Units and tenants were required to provide baseline information on mission, activities, and future requirements, and later reviewed the draft NEPA document to confirm (or modify) the information presented.²⁴ Involvement of multiple-installation organizations, in addition to the master planners, increased the overall understanding of NEPA requirements and the intent of NEPA. One participant described an initial, negative view of NEPA by installation staff as an “environmental report card” on unit activities. Then, as understanding developed, NEPA became viewed as a tool to assist them in conducting their daily activities.

5.3.6 Goal of Improved Compliance²⁵

As a factor promoting integration, participants repeatedly cited the desire to improve NEPA compliance. In many cases, participants felt that early integration did indeed improve compliance. The process of preparing the land use planning NEPA documents often involved increased education and awareness so that project proponents could better meet NEPA requirements as legally mandated. One NEPA manager noted that the programmatic installation land use NEPA document served both as an educational tool and as an enforcement tool, a document that would “help to keep them honest.” The development of standardized procedures also ensured satisfaction of procedural NEPA requirements. One participant noted his “primary goal” for preparing the land use planning NEPA document was “making NEPA compliance easier and more sound.” Accurate and complete baseline information reduced dependence on out-of-date NEPA documents to justify Findings of No Significant Impact or Categorical Exclusions. One participant noted that tenant organizations had been citing a 1978 EA to substantiate such conclusions, introducing a serious compliance risk if ever questioned. Another participant saw value in the

accumulation of an “administrative record,” serving to substantiate environmental analyses supporting installation command decisions.

5.3.7 Perceived and Realized Efficiency Gains

Almost all participants that had prepared programmatic NEPA documents realized, or expected to realize, significant cost savings (through, for instance, tiering and incorporation by reference) and fewer delays on mission activities due to environmental requirements. One participant mentioned that installation staff could now prepare NEPA documents, avoiding the need to hire outside environmental consultants. Others expected that the collection of baseline data in one place would serve to reduce the “bulk” of future NEPA documents, allowing these documents to just focus on important issues and reference the programmatic document. Some participants described efficiencies that accrued through better siting decisions that enabled them to avoid the preparation of lengthy NEPA documents, and the use of the programmatic document to cover subsequent projects and minor project changes. One master planner noted that he was not required to prepare an EA on a construction project that was adequately covered by the programmatic document, thereby saving \$50,000.

5.4 Factors that Impede Integration

The research also identified barriers to integration, and these are presented in this section. In many ways, these factors that impede integration are mirrors of the factors that promote integration. This “mirror effect” helps to clarify and highlight the major issues influencing the extent of integration, and thus served to aid in the development of recommendations.

5.4.1 Problems with Comprehensive Planning

Early in the research, problems with Army installation master planning became apparent; problems not directly related to NEPA, yet important to the success of integration. The integration of NEPA into master planning is hampered by the lack of a formal master

planning process, the lack of funding for planning, and low priority given to such long-term planning.²⁶

Complete Real Property Master Plans, including all components (Long-Range Component, Capital Investment Strategy, Short-Range Component, and Mobilization Component) are generally not being written except at installations that are uniquely motivated to invest the resources. Often the RPMP consists of a mapped land use plan that is periodically updated. A new format, called the Summary Development Plan, has evolved that is “shorter and more reliant on GIS and graphics.” Planning offices have been severely downsized, both at the MACOM and installation levels, and as a result focus on immediate construction projects within cantonment areas. Congressional funding cycles, combined with the short-term nature of Army leadership appointments,²⁷ result in short-term focus for installation management.

The short-term nature of budgeting and leadership (maximum three years) is in contrast to the twenty-year planning horizon of the master planning process, and there is little incentive for long-term planning. As described by an installation master planner, “Command is only interested in current conditions. The master plan changes with each new commander and there is no long-term planning.” Furthermore, the installation planning positions are most often filled with engineers, not individuals with planning certifications.²⁸ One participant indicated the need for installations to “hire planners for master planning positions, not engineers” because these individuals need skills and training that engineers do not typically have, and noted regarding the master planning process that there is “no policing, no overview” and “no one makes sure it is happening.”

5.4.2 Lack of Institutional Framework and Communication

The disconnection between the master planning process and the NEPA process results, in part, from the lack of a framework for coordination. Within an installation, units and tenants typically do not have regular or required interaction with the environmental office. Tension between professional disciplines can develop. Army planners (or engineers) often resent

interference from the environmental staff, feeling that the “environmental folks” are inconsistent, too restrictive, unwilling to compromise, and place priority on “pleasing the regulators” instead of promoting the mission. Environmental staff complain of “grudging cooperation,” “adversarial relationships,” and “poor interfacing” with engineering staff. At some installations, disciplines use different data management techniques (CAD vs. GIS, for instance), further inhibiting communication. In an atmosphere of limited funding, competition between functional organizational units can further exacerbate tensions between the disciplines.

5.4.3 Inadequate Funding Mechanisms

The lack of funding for preparing NEPA documents inhibits early and successful integration. Programmatic efforts for Army installations are often large and costly, and often a lower priority than other concerns (such as immediate facility needs, maintenance concerns, training requirements, or regulatory compliance violations). Funding requests, for specific purposes and through specific funding channels, are appropriated to the installation in a consolidated form and the installation commander ultimately decides where the dollars are spent. Such a system does not ensure consistent, stable funding. The Army Environmental Program Requirements (EPR) budget allocations are based on a priority, “must fund” system, first addressing cases of violation of environmental laws, then regulatory deadlines, and then proactive approaches. As stated by Army guidance, “Requirements to avoid future non-compliance and to promote the Army’s commitment to environmental quality and stewardship should be supported *as funding permits*” (HQ Army 2000: I-9, emphasis added).

NEPA funding for large programmatic or planning efforts is not considered a “must fund” unless the proponent can “convince [command] based on a legal challenge,” as one participant explained. Currently, “the only way to get the money [for NEPA documents] is as part of the project funds,” thus reinforcing the perception of NEPA as a project-level requirement. The proponent for the programmatic, installation-wide NEPA document has to

“decide how to pay for it.” As another participant observed, “Without money, it is difficult to make it happen – no matter how useful or relevant.”

5.4.4 Inconsistent Guidance

Participants cited inconsistent NEPA guidance and policy from Department of the Army Headquarters as a barrier to the completion of the NEPA documents. One stated that “inconsistent guidance is the biggest problem” and often results in a lengthy approval process. Others complained that there are no “written procedures” and the “organization at the Pentagon is constantly changing requirements.” The definition of “alternatives” and “purpose and need” becomes the subject of debate, and even the title of the document can be debated. In one case, the legal manipulation of the description of the proposed action and alternatives (DOPAA) forced many revisions and complete re-writes of the NEPA document on the RPMP, such that the final version was of reduced utility. When asked to describe beneficial outcomes, this participant had few to share, stating that many potential benefits “were not realized because the final DOPAA only covered *approval* of the changes to the master plan, not the implementation of the projects themselves.”

5.4.5 Approval Barriers

Programmatic NEPA documents face hurdles in the approval process ranging from “difficulty convincing people for the need for such documents,” to “lawyers are not in favor and want to avoid public scrutiny,” to draft documents rejected for having “too much background” or because “no decision was being made.” As one participant explained, “To have invested the time, money and effort, then to have it [the programmatic land use NEPA document] rejected or turned in for revisions is very discouraging and frustrating.” The “Pentagon is not in favor of the master plan EISs,” forcing installations to instead use EAs, which don’t have to follow the same lines of approval. EIS preparation also involves public scoping and comment. By using an EA instead of an EIS, an opportunity to keep the public informed on proposed plans is foregone, as is the possible prevention (through such dialog) of development and encroachment issues.

Some NEPA documents are on a perpetual cycle of review and modification, taking many years to reach a final draft. The Yuma Proving Ground-Wide EIS has been in development for seven years and counting. The Aberdeen Proving Ground effort has taken eight years and is still not final. The White Sands Missile Range EIS developed over a nine-year period. The Army review process involves multiple individuals, many departments, and many levels. The “staffing” element is confusing, the source of many complaints from participants. One participant noted that the review process takes as long or longer than the preparation process. Lengthy reviews also add delays, requiring updates to baseline data. Another described an approval process with “twenty-seven concurrences needed, then spent over one year making minor re-writes, most of which had to send through all twenty-seven again.” Another described trying to navigate the approval process through seven different offices by creating a flow chart and, at each meeting, asking staff members to explain the procedures. She had limited success because “no one understood the whole thing. How is the field supposed to know if they don’t?”

5.4.6 Short-Term Leadership

Participants pointed to impediments associated with frequent changeover in leadership; this factor impedes both the installation planning process and the NEPA document preparation process. These interruptions cause problems in timing, deciding when to make the “snapshot” (the NEPA document), and delays when changes are needed to the document. Over time, many different individuals may be involved with the document – environmental office staff changes, installation leadership changes, and contractor management may also change. Each change requires an orientation and training period for the new individuals. The short-term focus also inhibits the long-term perspective needed for installation planning and programmatic goal setting.

5.4.7 Multiple and Separate Facilities

This factor relates to the organizational structure of the National Guard Bureau (NGB) and Army Reserve Command (USARC), in that large, contiguous pieces of property are an exception for these commands. The NGB equivalent to an installation is an entire state, and all the training lands, buildings, and facilities in that state. The National Guard often shares property and facilities of a larger, active-duty installation. USARC also has organizational difficulties, as properties are spread over regions, and integrated planning and management is logistically difficult and impractical. A participant noted that it is “difficult to prepare a meaningful master plan” to cover “400-500 facilities in eight different states.” USARC has attempted to coordinate a document with adequate site specifics, and also to comply with individual state requirements, but funding limitations hamper the completion of such documents.

5.4.8 Negative Perception About NEPA

The early integration of NEPA into planning requires an appreciation of NEPA that goes beyond project-focused compliance. The success of early integration often depends upon the quality of the contractor, and the contractor’s ability to understand, appreciate, and articulate the planning processes being evaluated. Without this capability, it is difficult for proponents to structure the analysis, define the decisions being made, or frame the appropriate alternatives.

In explaining difficulties with preparing programmatic NEPA documents, a participant addressed the role of contractors and “trying to get them [contractors] to look at it from a ‘procedure’ focus, and away from a ‘project-by-project’ focus,” which is “hard to articulate” and “hard to convince contractors to change their focus.” Furthermore, the installation NEPA proponent cannot effectively justify the cost of the programmatic, planning-level NEPA process to installation command if they do not understand or cannot articulate the utility.

For some installations, NEPA continues to be perceived as a paperwork requirement – a “red tape exercise.” Even though proponents know the NEPA requirements, completing the document is “way low on the list of things to work on” and the NEPA process “is just another check in the box.” A participant observed that many “people lose sight of the process and focus on the product.”

On the other hand, NEPA proponents are learning through experience. One participant observed that a master plan EA for the installation had a project focus, and failed to engage other staff elements beyond the planning and environmental organizations; thus, the final document had little utility. According to the participant, this occurred primarily because the contractor, USACE, and the installation environmental staff did not know how to apply NEPA any other way. She indicated that the next time the EA would have a land-use focus.

5.4.9 Proponent Responsibility and Risk Aversion

Accepting ownership and responsibility for planning-level NEPA documents presents another barrier. According to a participant, in his MACOM, the environmental office is unwilling to pay for planning-level NEPA documents because “we are not the proponent, we are not responsible, we aren’t going to bother.” As participants observed, “the issue of proponenty translates into an issue of money” and the proponents often “desire to avoid public scrutiny.” If the installation environmental office takes on the responsibility, which is most often the case, it is difficult to coordinate meaningfully with the master planning office or functional units or tenants, especially if the document is prepared after-the-fact. Furthermore, the proponent will often contract out for document preparation, removing the proponent from meaningful interaction during the process and intellectual ownership of the end product.

Proponents are often unwilling to expend limited funds for a programmatic NEPA document unless they are assured that all the projects covered by that NEPA document would be approved and funded. One participant explained that the reluctance to do an installation-wide or a master plan EA is related to the risk that if an EA is done “and there is a snag

with the EA, then everything associated with the EA gets impacted...you run the risk of having everything delayed, and all the projects in that EA go down together – so why take the risk?” Furthermore, there are risks associated with investing limited funds on a project that may not go forward, so “why spend the money for things you aren’t going to do?”

5.4.10 Standard NEPA Process Inadequate

The NEPA process contrasts to the master planning process at Army installations: the former is relatively linear and discrete, while the latter is iterative and ongoing. Without a concrete master plan, or a set of proposed actions, it is difficult to determine when a “decision” is being made that would be the focus of NEPA analysis. Participants often blamed constantly-changing mission requirements, because the “fixed” NEPA document would then require adaptation, lengthening the overall time frame. Participants noted that the traditional NEPA process focuses on details, but the size and complexity of a major installation could not be accommodated sufficiently in a single document at that scale of analysis and within limited budgets. In such cases, multiple, project-specific NEPA documents are still required, lessening the utility of a programmatic document. Legal issues also arise in defining the range of alternatives, including the “no action” alternative, sometimes perceived as “closing the installation” – an unacceptable approach. Without credible alternatives, a NEPA analysis is suspect, and, as a participant noted, “the challenge remains to create a useful document that does not just sit on a shelf.”

6. Recommendations

Army land managers and Army NEPA practitioners are familiar with the issues raised in this paper. Many of these issues, such as those related to the organizational structure of the Army, cannot be easily addressed. However, many of the identified benefits to early integration of NEPA into installation land use planning can be used to improve the NEPA process and to affect cost savings at Army installations. The following policy recommendations are made to address many of these issues and enhance the realization of benefits.

6.1 Issue: Master Planning

Current implementation of the Army installation master plan regulations is not sufficient to ensure the consistent, adequate preparation of installation master plans, hindering long-term, comprehensive installation planning and subsequent management. Such planning is the exception at Army installations. Additionally, the short-term nature of leadership and staff appointments hinders long-term installation planning. Without comprehensive master planning for the installation, integration of NEPA from a programmatic perspective is difficult. Although the focus of this research study was on NEPA processes, there is little to observe without the corresponding planning processes.

Recommendation: *The Army should invest the resources, attention, and oversight to ensure comprehensive installation-level planning.* Comprehensive, long-term plans are needed to ensure the sustainable, continuous operation of strategic Army installations into the indefinite future, addressing a host of sustainability factors such as urban and regulatory encroachment and community relations, water supply and water quality, the acquisition and maintenance of realistic training lands, ecosystem management to protect both game and endangered species, and pollution prevention. The current Army master planning regulation (AR 210-20) establishes the necessary policies and framework for such comprehensive planning, representing a *conscious effort* to

eliminate the “stove pipes” and functional fragmentation that currently plague installation management. This policy and guidance is adequate to facilitate the needed comprehensive plans, if used, and should do more than justify military construction projects and budgets, as currently-practiced master planning does today. In addition, the short-term nature of leadership and staff assignments and their effects on long-term installation planning should be evaluated, and potential solutions investigated.

6.2 Issue: Disconnect and Duplication

The existing disconnect between the master planning functions and the NEPA requirements results in duplicated effort, inefficient contracting, poor coordination and communication, and end products of little practical value. Often, NEPA documents are prepared by outside consultants with little or no involvement from (or collaboration with) the master planning staff, other functional staff, training land managers, and tenants at the installation.

Recommendation: *Policy and guidelines should require concurrent preparation of master plans and programmatic NEPA analyses, capitalizing on similarities in requirements and minimizing duplication.* The current procedural (compliance) focus of NEPA has evolved through misdirected agency implementation of the statute and the CEQ regulations. NEPA was intended as a useful tool in rational decision making, providing needed information on environmental consequences and significant issues early in the decision-making process, at a time when alternate decisions and solutions could be readily evaluated. Properly implemented, NEPA can provide a useful forum for communication and coordination among affected units, staff, and tenants at the installation, and with the community outside the fence line. A successful, useful master plan must involve the same information and processes as those for NEPA documents. Early and concurrent implementation can effectively enhance *both* processes, improving efficiency and utility.

6.3 Issue: Army Policy

Installation-level NEPA practitioners are unsure of Army policy in support of programmatic, planning-level NEPA documents. Although cases of successful integration exist, these cases are plagued with delays attributable to the extensive, and often confusing, Army review process. The strict, legal interpretation that NEPA applies only to “proposals” limits the use of NEPA to support installation mission.

Recommendation: *The Army should provide consistent headquarters guidance and oversight for installation planning and NEPA implementation.* The Army Headquarters and MACOMs should facilitate the appropriate use of programmatic NEPA analyses in support of sustainable installation land-use planning, including the “ongoing mission” efforts for each installation. This facilitation should streamline the approval process, exploit opportunities for cost savings, and ensure installation accountability.

6.4 Issue: Standards and Guidance

Army NEPA practitioners have difficulty framing alternatives and identifying impacts for the subsequent NEPA analysis at the programmatic or planning level. Installation (and MACOM) NEPA practitioners are often inexperienced in overall planning procedures and the use of programmatic approaches to NEPA, and often have little or no experience in the preparation of programmatic documents.

Recommendation: *The Army should develop “best practices” standards and guidance for programmatic, concurrent master planning and NEPA analyses.* Information (lessons learned) on successful integration should be summarized and provided to practitioners attempting to prepare programmatic land use documents. Leadership awareness training should be provided to integrate the requirements of AR 210-20, AR 200-1, and AR 200-2, establishing appreciation for the value of programmatic NEPA analyses,

tiering, and master planning. Training should include environmental staff, garrison command staff, and leadership of all installation organizations.

6.5 Issue: Funding

Environmental Program Requirements detail the process for requesting funds to support environmental requirements, but as these procedures are written to reflect allocation on a “must fund” system, less priority is given to proactive actions. Similar complications affect master planning, which is often accomplished with yearly appropriations of operation and maintenance dollars. This cycle must accommodate the military construction funding cycle, which is a five-year (or more) cycle. Separate and disjointed funding cycles, combined with changes in appropriations at each cycle, further complicate the ability of installations to complete comprehensive planning.

Recommendation: *The Army should alter budgeting procedures to ensure stable funding of programmatic land use plans and NEPA analyses.* Installations must have stable mechanisms to fund such programmatic efforts. Although sorely needed, these comprehensive, proactive efforts do not neatly fit into the existing funding mechanisms, and, as a result, Army installations remain in reactionary mode.

6.6 Issue: Proponent Responsibility

Defining the “proponent” is difficult, particularly for a comprehensive, installation-wide programmatic effort. While NEPA requirements (done at the project level) are typically funded by the proponent, programmatic land use planning efforts involve multiple proponents, and may require some central, or different, funding mechanism. Current procedures equate “proponency” to the “bill payer,” and planning often cannot await the resolution of the numerous issues that result.

Recommendation: *The proponent for the installation master plan and its accompanying NEPA document should be the garrison commander, not the public*

works directorate or the environmental directorate. The garrison commander has a centralizing and coordinating function as the chairman of the Real Property Planning Board. This individual can coordinate with other installation commanders to set the strategic goals for the installation, directly influencing the master plan Capital Investment Strategy and Short-Range Component, as well as shaping the future direction of the installation. The commander can allocate the necessary funding, and direct units and tenants in their roles to support the master planning and NEPA processes. Ultimately, it is the garrison commander that can benefit from an efficient and early incorporation of EIA into master planning, since he or she is the decision maker these processes are designed to advise.

7. Conclusions

Timing (concurrency) alone cannot be used to measure the degree of integration between NEPA and installation master planning. Other measures must be employed. According to NEPA and CEQ regulations, integration of NEPA into agency planning means that environmental factors are considered in the decision-making process *at the same time* as other factors. Clearly, consideration of environmental factors *after* the decisions are made will lessen the likelihood that these factors will significantly influence subsequent actions. This research study found that concurrent preparation of land use planning documents and their required NEPA documents is the *exception* at Army installations.

Integration can also mean that environmental considerations are part of daily land management decisions at installations. Such integration improved environmental office coordination with the engineers and staff of the master planning office and other stakeholders at the installation. Integration improved awareness and understanding of NEPA requirements by the installation staff and master planners, as well as other functional units and tenants. Integration can establish standard approval procedures for more efficient and effective installation NEPA compliance and lead to improved installation siting decisions, resulting in considerable cost savings. Integration can be as simple as a conversation between the installation master planners and the environmental staff, or as complex as a detailed procedure for environmental review of all tenant activities, coordinated through the environmental office.

Programmatic-level NEPA analysis for installation land use and planning reflects a proactive approach — one based on utility, improved efficiency, and improved compliance — that has yet to be concretely addressed in Army-wide policy or practice, which still exhibits a procedural and “legally mandated” focus. The key to successful integration of NEPA into early Army planning relies on effective, comprehensive, and long-range planning; an activity inhibited by organizational and funding issues. Installations with multiple environmental constraints, resource issues with neighboring

communities, or intensive field training requirements have much to gain through such proactive planning and management.

The strict legal interpretation of CEQ regulations is often focused on the timing of NEPA analysis—determining when is early enough, or what/when the decision is to be made. The NEPA document – a static snapshot in time – is difficult to fit into the planning process, which is ongoing and iterative. As a result, NEPA considerations are often excluded at the very early stages of strategic installation planning, the point when they are most valuable. Installation NEPA coordinators are too often challenged to justify the exact timing of a land-based planning-level NEPA analysis when a concrete, formal master plan is not being written. In spite of these hindrances, programmatic-level documents to address land use and planning *are* prepared at some installations; illustrating the *usefulness and value* of the process, not a legally required mandate.

The complications of (and hindrances to) integration experienced by the Army do not appear to be attributable to the applicable Army implementing regulations (AR 210-20 and AR 200-2), but they more accurately reflect the inherent difficulties of planning for the future in a climate of restricted, unpredictable funding and constantly changing mission requirements. Successful integration requires a “buy-in” from the installation commander and an appreciation of NEPA by installation functional unit staffs; and it also requires a comprehensive approach to land management. This research has shown that NEPA *can* be an aid to decision making, and NEPA *can* improve agency planning. This research has also shown that the earlier NEPA is implemented, the more useful the process can be.

References

Andrews, R.N.L. 1997. The unfinished business of national environmental policy. In Clark, R. and L. Canter (eds), *Environmental policy and NEPA: Past, present and future*. Boca Raton, FL: St. Lucie Press.

Army Regulation 200-2. 1988. *Environmental Effects of Army Actions*. Available at http://www.usapa.army.mil/pdffiles/r200_2.pdf or at http://books.usapa.belvoir.army.mil/cgi-bin/bookmgr/BOOKS/R200_2/CONTENT

Army Regulation 210-20. 1993. *Master Planning for Army Installations*. Available at http://books.usapa.belvoir.army.mil/cgi-bin/bookmgr/BOOKS/R210_20/CONTENT or at http://www.usapa.army.mil/pdffiles/r210_20.pdf

Brown, A.L. and R. Therivel. 1999. Principles to guide the development of strategic environmental assessment methodology. *Impact Assessment and Project Appraisal* 18(3), 183-189.

Clark, R. and L. Canter, eds. 1997. *Environmental policy and NEPA: Past, present and future*. Boca Raton, FL: St. Lucie Press.

CEQ (Council of Environmental Quality). 1986. *Regulations for implementing the procedural provisions of the National Environmental Policy Act*. 40 C.F.R. 1500-1508. Federal Register 43: 55994 (November 28, 1978), Federal Register 49: 49750 (December 21, 1984), Federal Register 51: 15625 (April 25, 1986).

CEQ (Council of Environmental Quality). 1997. *The National Environmental Policy Act: A study of its effectiveness after twenty-five years*. Washington, D.C.: Executive Office of the President.

DoD (Department of Defense). 2000. *Environmental Analysis of Army Actions; Proposed Rule*. Federal Register 65(174): 54347-54392.

Eccleston, C. H. 1999. *The NEPA planning process: A comprehensive guide with emphasis on efficiency*. New York : John Wiley and Sons, Inc.

Ensminger, J.T. and R.B. McLean. 1993. Reasons and strategies for more effective NEPA implementation. *The Environmental Professional* 15(1), 46-56.

European Commission. 2001. *SEA and Integration of the Environment into Strategic Decision-Making*. Available at: <http://europa.eu.int/comm/environment/eia/sea-support.htm>

Fogleman, V. M. 1990. *Guide to the National Environmental Policy Act: Interpretations, applications and compliance*. New York: Quorum Books.

HQ Army (Headquarters, Department of the Army). 2000. *Policy and Guidance for Identifying U.S. Army Environmental Program Requirements*. Washington, D.C.: Office of the Director Environmental Programs, Assistant Chief of Staff for Installation Management.

Kreske, D.L. 1996. *Environmental Impact Statements*. New York: John Wiley and Sons.

Mandelker, D. R. 2000. *NEPA law and litigation* (2nd ed.) St. Paul, MN: West Group.

Ortolano, L. 1993. Controls on project proponents and EIA effectiveness. *The Environmental Professional* 15(4), 352-363.

Ortolano, L. and Shepherd, A. 1995. Environmental impact assessment: challenges and opportunities. *Impact Assessment* 13(1), 3-30.

Partidário, M. R. 1996. Strategic environmental assessment: Key issues emerging from recent practice. *Environmental Impact Assessment Review* 16, 31-55.

Partidário, M. R. 2000. Elements of an SEA framework: improving the added value of SEA. *Environmental Impact Assessment Review* 20(6), 647-663.

Partidário, M. R. and R. Clark, eds. 2000. *Perspectives on Strategic Environmental Assessment*. Boca Raton, Florida: Lewis Publishers.

Sadler, B. and R. Verheem. 1996. *Strategic Environmental Assessment: Status, challenges and future directions*. Report no. 53, The Hague, The Netherlands: Ministry of Housing, Spatial Planning and the Environment.

Shepherd, A. and S. Simm. 1997. The integration of environmental impact assessment with major investment studies for highway planning. *Environmental Planning Quarterly* 14(2), 3-10.

Therivel, R. and M. R. Partidário, eds. 1996. *The Practice of Strategic Environmental Assessment*. London: Earthscan.

Weiner, K.S. 1997. Basic purposes and policies of the NEPA regulations. In Clark, R. and L. Canter (eds). *Environmental policy and NEPA: Past, present and future*. Boca Raton, FL: St. Lucie Press.

Wheeler, I.W., J. Fittipaldi, C. Forrest, R. and Marlatt. 1988. Army master planning: An analysis of policy and procedures, USA-CERL Technical Report N-88/16. Champaign, IL: United States Army Corps of Engineers, Construction Engineering Research Laboratory.

NOTES

¹ The term utility in this document relates to the usefulness of the NEPA process. “Useful” NEPA documents (and the process of preparing them) will accomplish several objectives: satisfy a legal requirement, ensure informed decision making, enhance the master planning process, improve siting decisions, reduce delays in mission accomplishment, and achieve the substantive intent of NEPA.

² CEQ regulations detail procedures for the preparation of an Environmental Assessment (EA) in order to determine if a full Environmental Impact Statement (EIS) is required based on the potential for significant environmental impacts. For the purposes of this study, EAs and EISs are equally considered as “required NEPA documents” and further distinction between these procedures is not explored.

³ See Brown and Therivel 1999, European Commission 2001, Partidário 1996, Partidário 2000, Partidário and Clark 2000, Sadler and Verheem 1996, and Therivel and Partidário 1996

⁴ 40 C.F.R. 1508.23

⁵ For a discussion of legal cases influencing NEPA implementation see Mandelker 2000 and Fogleman 1990

⁶ The regulations describe the purpose of the board and specify its members; the installation commander is the chairman (AR-210-20 Chapter 4). The RPPB is to meet on a regular basis and “will assist the commander to manage and develop installation or area facilities and real estate in an orderly manner to satisfy all assigned and future known missions.” (4-1)

⁷ AR 210-20, 3-7 [c] Because components of the RPMP are “programmatic in nature, umbrella environmental documents should normally be prepared for them.”

⁸ The type and number of contributing plans will vary depending on the installation but will include plans such as the Integrated Natural Resource Management Plan, the Hazardous Waste Minimization and Hazardous Waste Management Plan, Endangered Species Management Plans, Pest Management Plan, Stormwater Pollution Prevention Plan, Integrated Cultural Resources Management Plan, Installation Design Guide, Risk Management Plan, and the Asbestos Management Plan (AR 210-20, 2-7 and 3-8).

⁹ The products of the LRC are maps and overlays that depict existing infrastructure, training ranges, facilities and living areas, as well as the constraints that exist on future land use.

¹⁰ 40 C.F.R. 1507.3

¹¹ DoD 2000: 54360, C.F.R. Proposed Rule, 651.14

¹² The revised regulation describes many procedural methods to promote early integration, such as through the timing of preparation, circulation and submission, through the scoping process, and through coordination of NEPA documents with other environmental requirements. The revised regulation also describes the programmatic environmental review and the tiering process, and the use of these techniques for Army actions that are long-term, multi-faceted, or multi-site. (DoD 2000: 54360-54365)

¹³ 40 C.F.R. 1508.23

¹⁴ 40 C.F.R. 1508.18

¹⁵ Some guidance will be included in the revised regulation (DoD 2000 54354, section 651.5[g]) that supports the need for supplemental assessment, and guidance is provided in 40 C.F.R. 1502.9. This need is established when “the Army makes substantial changes...that are relevant to environmental concerns,” or “there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impact.” While considerable discretion is afforded the agency decision maker, the criteria and basis for new or revised NEPA analysis are specified by CEQ regulations.

¹⁶ CEQ regulations refer to programmatic documents and tiering in 40 CFR 1502.4, 1502.20, 1508.28. The current AR 200-2 addresses the application of the programmatic approach in Section 2-6(c).

¹⁷ Fort Bliss, Fort Huachuca, Fort Jackson, Fort Leavenworth, Parks Reserve Forces Training Area, and Fort Riley.

¹⁸ Aberdeen Proving Ground, Fort Carson, Fort Drum, Dugway Proving Ground, Redstone Arsenal, Fort Sam Houston, White Sands Missile Range, and Yuma Proving Ground.

¹⁹ New Mexico Army National Guard, Fort Richardson

²⁰ Responses from study participants aided in the identification of additional contacts, as well as additional cases. There are limitations to generalizability of the resulting data due to interview and document request response rates. The results reflect the input of those individuals who replied to requests for documents and interviews. As there were multiple requests with no responses, the final data set has a self-selecting bias.

²¹ Of the sixteen cases, two (Fort Richardson and the New Mexico National Guard) did not have documents related to land use planning available *or* in preparation.

²² Quotations in the Results section are those of study participants. Confidentiality was assured to study participants, and therefore the quotations are not cited.

²³ Participants from Fort Riley, Aberdeen Proving Ground, Fort Bliss and Fort Jackson described NEPA training provided to enhance programmatic efforts and future compliance.

²⁴ Participants from Yuma Proving Ground and Fort Bliss specifically described this process, while others referred to this type of coordination.

²⁵ "NEPA Compliance" in this paper refers to the preparation of NEPA documents in compliance with the statute and implementing regulations, or the procedural requirements of NEPA. This is not intended to ignore the substantive intent of the law, but rather to reflect the focus of federal agencies on the procedural requirements.

²⁶ Also noted were problems with the planning process itself and the multiple regulations that impact and influence master planning. "These related regulations create a marked division of the master planning process. Community planners, civil engineers, architects, landscape architects, real property managers [range managers, natural resource managers, foresters] and installation commanders each have their own unique perspective of how the installation should be developed, based on each person's role in the planning process. With specific mandates from each of their respective ARs and a lack of strong interdisciplinary coordination, master planning breaks down into a number of independent, unrelated activities." (Wheeler, et al., 1988).

²⁷ Congressional appropriations are renewed on an annual basis. The Programming, Planning and Budgeting Execution System for the Army is based on a two-year cycle. Political leadership at Army Headquarters typically involves a four-year appointment. Garrison command assignments at installations last from two to three years, and are typically the last assignment before retirement.

²⁸ There are college academic programs in City and/or Regional Planning that set academic credentials associated with the profession. There are also accreditation/certification programs for professional planners.