

# **Integration of NEPA Analysis in Army Strategic Planning**

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## Integration of NEPA Analysis in Army Strategic Planning

Continuous improvement is an Army standard practice and is the underlying theme of ISO 14001. The Installation Management Command (IMCOM<sup>1</sup>), supporting the United States Army's warfighting mission, has a well-defined evaluation and prioritization process for determining how to provide effective and efficient services, facilities, and infrastructure to Soldiers, Civilians, and Family Members. Within this process, economic and environmental components are merged together to form a strategic plan that is consistently scrutinized as it is applied. This paper provides an in-depth view of how Army Installations, in particular Fort Stewart / Hunter Army Airfield (FS/HAAF) in Georgia, develop, evaluate, prioritize and decide to execute a proposed action. This strategic planning process at FS/HAAF is intertwined with the spirit of the National Environmental Policy Act (NEPA) and provides an accurate and constant venue for environmental involvement. Within this procedural configuration, NEPA analysis becomes a part of the decision-making process. Discussion within this paper will also focus on steps beyond the decision-making process: monitoring mitigation commitments as a result of those decisions and discovering adaptive management techniques.

### Overview

Army planning incorporates sustainability management as a means to integrate mission requirements with environmental, economic, and social (community) goals. Army Installations have instituted an IMCOM directive that requires a total quality management approach to strategic planning. In 2010, Installations began utilizing the Installation Management Campaign Plan (IMCP) as a means to actively track the progression of local measures that are important to the sustainability of the Army. Effective integration of effort requires execution of the strategic plan across the command. There are six mandatory Lines of Effort (LOEs) that are measured through the IMCP (Figure 1): Soldier, Family and Civilian Readiness; Soldier, Family and Civilian Well-Being; Leader and Workforce Development; Installation Readiness; Safety; and Energy Efficiency and Security. At FS/HAAF there are teams from various disciplines that are responsible for the performance and measurement of their assigned LOE.

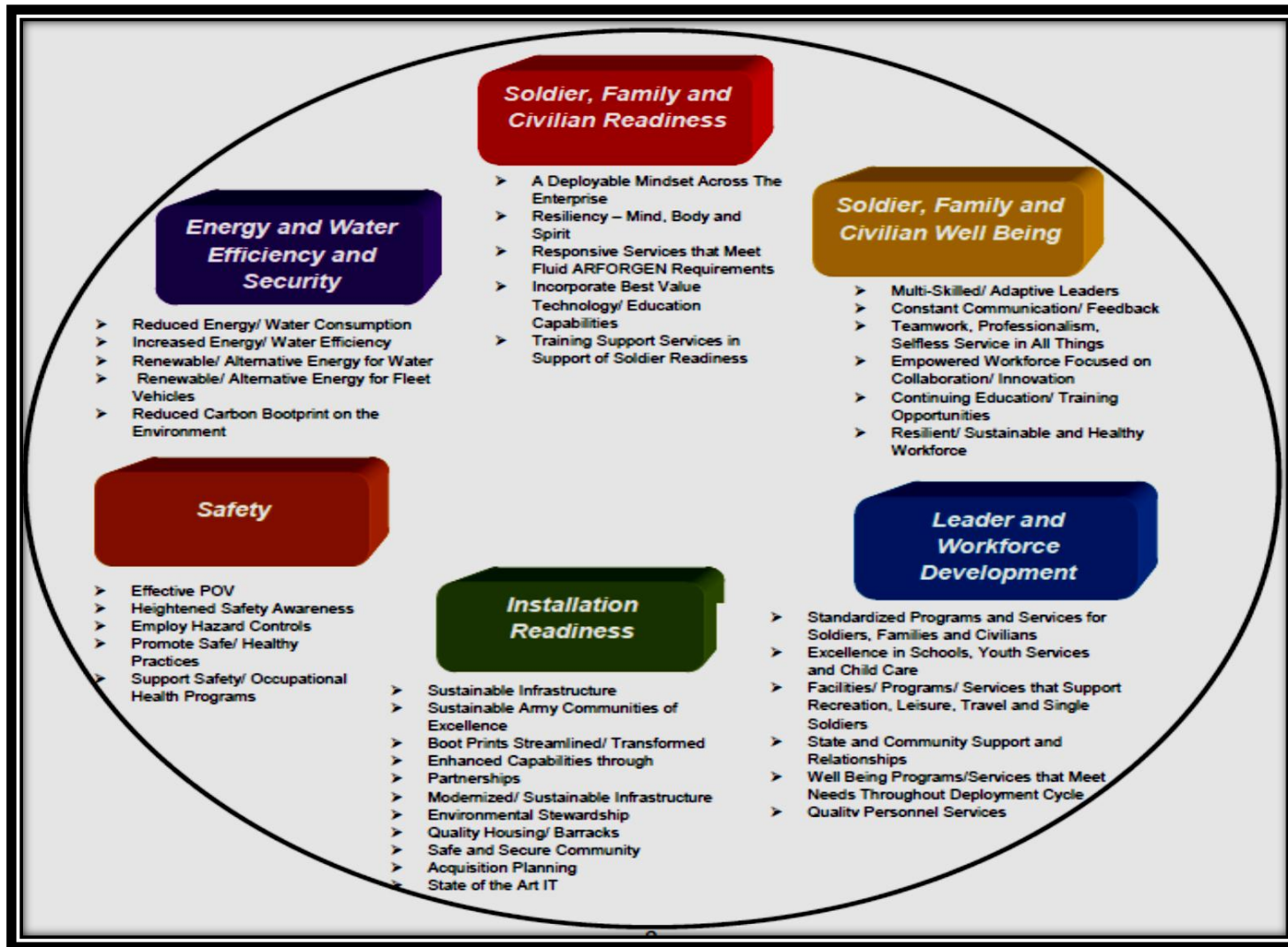


Figure 1<sup>2</sup>. FS/HAAF six LOEs.

### **Process Description and Environmental Involvement**

The implementing provisions of NEPA require all federal agencies to utilize a systematic, interdisciplinary approach to insure integrated use of natural and social sciences and environmental consideration in planning and decision-making<sup>3</sup>. Correspondingly, the Environmental Management System (EMS) is designed to consistently provide a framework to address environmental concerns in a comprehensive manner<sup>4</sup>. Together, the FS/HAAF NEPA and EMS programs analyze, report, and manage environmental impacts within the Installation's strategic planning process (LOE-team process). The EMS program at FS/HAAF is known as the Sustainability Management System (SMS<sup>5</sup>) program.

During each quarter, all six LOE teams conduct separate working group meetings to discuss the status of their measures, and those that are not meeting the mark are flagged as issues that require Command support and guidance. Throughout, cross-functional SMS Process Action Teams (PATs) are supporting those efforts. The local Installation Environmental Office leads each SMS PAT and is involved in each LOE-team.

FS/HAAF's LOE-team process provides a mechanism to aid in prioritizing environmental clearance workload and enables coordination of preliminary environmental assessments to identify potential constraints to project execution in the overall planning process. This strategic integration includes the incorporation of NEPA into ongoing Army planning and there is widespread understanding that sustaining the training platform correlates with proper management of the Installation's environmental resources. FS/HAAF's strong strategic planning foundation makes this integration possible.

Communication, coordination, stakeholder engagement, and accountability are important parts of this mature planning process. In effect, the LOE-team structure serves as the primary tool for each stakeholder to understand their role in supporting established targets and prioritizing their efforts. In addition to the working group meetings, each LOE team conducts formal briefings to the Garrison Commander (a decision-maker) quarterly. This allows a high level of visibility of current challenges and also provides for timely notification to all garrison support functions so they are aware of how they can contribute to overcoming those challenges.

Staying aware of current challenges throughout the year, each LOE team develops a prioritized list of projects and process proposals intended to meet defined objectives. Each LOE-specific list is advanced to an overarching Integrated Priority List (IPL), which is then reviewed by the Installation Planning Board (IPB). This executive board is chaired by the Installation Commander (a decision-maker) where the measures are again reviewed, and all the projects are evaluated and prioritized for execution pending funding. The IPL is published to the workforce to communicate the Installation's priorities. For FS/HAAF's Environmental Office, this means verifying that all projects have been fully coordinated with environmental media managers to validate compliance with all applicable regulations and that the appropriate level of environmental analysis has been prepared in accordance with NEPA.

Tracking actions for environmental review during the LOE-team process and ultimately for execution from the published IPL is managed by the Installation's Environmental Office NEPA program. The NEPA program at FS/HAAF initiates environmental resource impact review of proposed actions and that information is consolidated and presented to the corresponding LOE team to discuss options for mitigation funding or to seek other alternatives to the proposed action. A proposed action may involve more than one environmental resource impact review as alternatives become more detailed or after the corresponding NEPA document is completed and design is initiated. This multiple review is conducted to evaluate if compliance with mitigation measures are being met.

Integration of environmental responsibility in the LOE-team process is well respected and appreciated because team members understand the importance of carefully considering mitigation requirements as the action is developed. Understanding what is or may be required early in the planning process helps to secure appropriate funds to fully implement a proposed action. Environmental Office involvement also results in a clearer definition of a proposed action and its purpose and need.

An explanation of how this process works can be shown by pulling one project and following it from inception to implementation. The Digital Multipurpose Training Range (DMPTR) was identified in the LOE-team process as an Installation priority to meet the needs of Army training requirements for Soldiers. Briefly, the DMPTR is a 1000-acre range that has multiple capabilities - from supporting vehicle crew training in a digital manner to dismantled

live-fire operations. Undoubtedly, the successful implementation of this range requires a robust coordination effort.

During the strategic planning process for the DMPTR, the Installation developed a total of eight siting alternatives. Both operational and environmental aspects were thoroughly analyzed in a collaborative manner by members of the Environmental Office, Range Control Office, and the Master Planning Office. As the analysis progressed, these siting alternatives were ranked using objective screening criteria. Minimization of environmental impact was a deciding factor in which alternatives were considered viable and which were not; determining what specific environmental resources could potentially be impacted was also done through the Installation's environmental review process. Support from the Range Control Office and Master Planning Office to prefer the action alternative with the least amount of environmental impact is a key component. When presenting the mitigation cost or environmental value loss for each alternative to the LOE team and equating that to likelihood of range construction in the timeframe desired, team members realized it made more sense to prefer an action alternative with less than significant environmental effects.

The NEPA document that evaluated the potential environmental effects of the reasonable DMPTR alternatives documented the LOE team coordination effort along with public input considerations. After being briefed by his staff on the eight alternatives, the decision-maker chose to implement the preferred action alternative. With the preferred alternative selected, the design process, the next phase in the LOE-team effort, began.

As with all proposed construction actions at FS/HAAF, environmental input is a requirement during design of a selected action alternative. The DMPTR was no different. While the nature of a large range project is such that the majority of environmental impact avoidance and minimization takes place during siting, site designers may alter certain aspects of the range in response to Environmental Office involvement. Each iteration of design (concept, 35%, 60%, 90%, and 100%) requires a review by the NEPA program to compare the design with the completed NEPA evaluation and to initiate another examination by subject matter experts within the environmental review process. The information from the environmental review of each phase of design is presented to designers and the LOE team. Using the DMPTR example, additional wetlands avoidance and minimization measures were conveyed by suggesting target

relocations. Identifying site-specific erosion and sedimentation control measures and best management practices was also an outcome of the environmental review process during the design phase of the DMPTR. This information, presented to the LOE team, assisted designers in adjusting the DMPTR design to strengthen the Installation's effort in meeting permitting and mitigation requirements set forth in the NEPA evaluation and NEPA decision document and, ultimately, in the construction contract that will enforce these environmental obligations.

Once the design is finalized and construction ensues, monitoring, permitting, and mitigation requirements become a reality accepted by the LOE team. Once DMPTR construction has begun, resource impact monitoring will be initiated. Similar projects requiring a specific regulatory outcome delineated in FS/HAAF NEPA and enforcement documents are continuously monitored for compliance<sup>6</sup>.

### **Process Challenges**

The Army's NEPA implementing regulation does compel effective monitoring of mitigation within a chosen alternative<sup>7</sup>. However, the Army at FS/HAAF is not immune to challenges of measuring ecological responses over time. While the aforementioned LOE-team approach provides opportunity for multi-dimensional ecological review of potential actions that support an overarching goal of sustainability, this approach is not used to measure the accuracy of the predicted impacts. A similar approach to mitigation monitoring is ideal to determine if unpredicted effects are occurring or are discovered to likely occur after the NEPA evaluation is completed. Developing adaptive management techniques are expected next steps in the mitigation monitoring phase of a decided course of action at FS/HAAF, as environmental baselines are continuously evolving and environmental impact predictions are not necessarily always accurate<sup>8</sup>.

Consistent reflective analysis is essential to more accurately determine the extent of ecosystem impact and if the mitigation planned and applied for a particular resource is appropriate over the long-term<sup>9</sup>. Similar to the approach FS/HAAF has implemented in its LOE team process, a systematic method to monitoring resources will more appropriately define the baseline for which to evaluate anticipated environmental impacts of future proposed actions. Developing such a systematic method is not an easy task. It will require fully understanding the

complexity of each resource and the composition of its properties in order to comprehend its responses to various impacts. Congruently, having the capacity to measure and understand a resource's response to changes over time, increases the ability to more aptly manage that resource.

The Council on Environmental Quality (CEQ) has recognized the difficulty of incorporating adaptive management into the NEPA process and has provided general guidance<sup>10</sup> to modernize the "predict-mitigate-implement" model that is traditionally practiced. The CEQ has added adaptive management steps for implementing post-decision monitoring and corrective actions, thus becoming the "predict-mitigate-implement-monitor-adapt" model. This modified NEPA process model allows for the uncertainty of predicted impacts. Predicting impacts does not have to be established with such assurance as the traditional model implies.

A possible first step in implementing adaptive management within the NEPA process at FS/HAAF, in line with the LOE-team approach, would be to develop resource data tracking objectives to improve the understanding of how resources react to changes from past, present, and reasonable foreseeable future actions. Analysis obtained from this data would assist the NEPA program in developing a more resource-based evaluation that points to truer potential environmental impacts with the ability to make more meaningful adjustments to a proposed action.

### **Conclusions**

Setting resource data tracking objectives would not be a monumental transformation to how FS/HAAF currently manages its environmental programs. There are limiting factors; however, to incorporating adaptive management into the traditional NEPA process. Often, the attention to this type of resource exploration over time is trumped by those requirements that have a clearer statutory influence and must be funded and met first throughout the Army. There is also insufficient detailed guidance about how to integrate adaptive management into the NEPA process. Regardless, FS/HAAF's SMS and NEPA programs are proactively involved in the day-to-day planning, execution, and mitigation associated with proposed actions. The SMS program, with its development of cross-functional PATs, and the NEPA program's presence within the LOE-team process, have spent years developing and tracking objectives and targets for



environmental performance. Considering alternatives and impacts in the procedural fashion of NEPA is comparable to the LOE-team process and this strategic planning process lends itself to successful integration of NEPA at FS/HAAF.

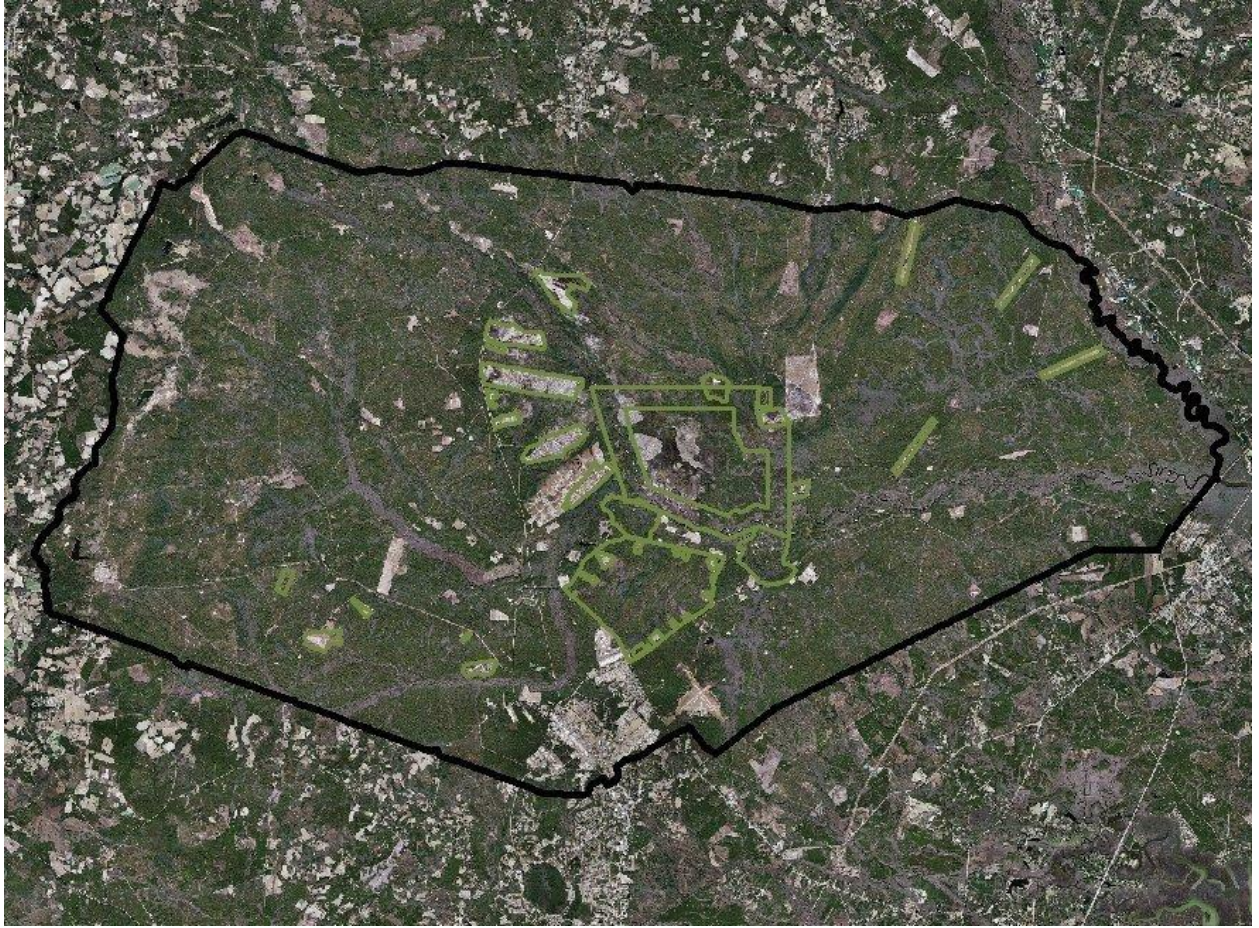


Figure 2. Fort Stewart aerial view with ranges outlined (does not include Hunter Army Airfield)

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<sup>1</sup> The IMCOM is responsible for the oversight of all facets of Army Installation management such as construction, barracks and family housing, family care, food management, environmental programs, well-being, Soldier and family morale, welfare and recreation programs, logistics, public works, and Installation funding ([www.imcom.army.mil](http://www.imcom.army.mil)).

<sup>2</sup> Figure from Fort Stewart / Hunter Army Airfield 2011 – 2021 Installation Campaign Plan. (Spring 2011).

<sup>3</sup> Bear, D. (2005). “Legislative History and Intent of Congress in Passing the National Environmental Policy Act.” (Unpublished paper). Duke Environmental Leadership Program Nicholas School of the Environment and Earth Sciences, Durham, N.C.

<sup>4</sup> See the Council on Environmental Quality’s recommendations, “Aligning National Environmental Policy Act Processes with Environmental Management Systems. A Guide for NEPA and EMS Practitioners.” (Spring 2007).

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<sup>5</sup> FS/HAAF has an ISO 14001 EMS that is referred to as the SMS program.

<sup>6</sup> The Army at FS/HAAF define resource threshold levels of significance, and mitigation measures are taken into account in assessing whether a significant impact exists, in accordance with the Army's implementing NEPA regulations (32 CFR 651.15(c)). FS/HAAF is applying the Council on Environmental Quality's 2011 published guidance on the "Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact."

<sup>7</sup> 32 CFR 651.15(i)(2) states that the objective of effectiveness monitoring is to obtain enough information to determine the effectiveness of the mitigation.

<sup>8</sup> See Sam Kalen's, "Ecology comes of age: NEPA's lost mandate." *Duke Environmental Law & Policy Forum* Fall 2010: 113+.

<sup>9</sup> See Itzhak E. Kornfeld's article entitled, "Adaptive Resource Management in complex systems" found in *Natural Resources & Environment*. 26.3 (Winter 2012): p29.

<sup>10</sup> See The NEPA Task Force Report to the Council on Environmental Quality, "Modernizing NEPA Implementation". Chapter 4, Adaptive Management and Monitoring. (Fall 2003).