



# The Commonwealth of Massachusetts

Executive Office of Environmental Affairs

100 Cambridge Street, Suite 900

Boston, MA 02114-2524

MITT ROMNEY  
GOVERNOR

KERRY HEALEY  
LIEUTENANT GOVERNOR

ROBERT W. GOLLEDGE, JR  
SECRETARY

Tel. (617) 626-1000  
Fax. (617) 626-1181  
<http://www.mass.gov/envir>

November 9, 2006

## CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS ON THE NOTICE OF PROJECT CHANGE

PROJECT NAME : Final Area-Wide Environmental Impact Report for  
Massachusetts National Guard Properties at the  
Massachusetts Military Reservation (MMR)

PROJECT MUNICIPALITY : Bourne, Falmouth, Mashpee, Sandwich

PROJECT WATERSHED : Cape Cod

EOEA NUMBER : 5834

PROJECT PROPONENT : The Massachusetts National Guard

DATE NOTICED IN MONITOR : September 26, 2006

Pursuant to the Massachusetts Environmental Policy Act (G.L. c. 30, ss. 61-62H) and Section 11.10 of the MEPA regulations (301 CMR 11.00), I have reviewed the Notice of Project Change (NPC) submitted on this project, which describes the Massachusetts National Guard (MANG) plans to return to the use of lead-bullet ammunition at the Massachusetts Military Reservation (MMR), and includes information on proposed bullet capture and containment systems, and other pollution prevention measures. The NPC provides valuable information to assist the environmental review process and establishes an appropriate framework for the review of the proposed action. However, given the location of the base over the Cape Cod sole source aquifer, and the incomplete status of baseline information, I will require supplemental information on baseline conditions, alternatives and pollution prevention plans as further detailed in the Scope below. I will allow the Tango Range (for which a STAPP bullet catcher system is proposed) and the Echo Range (for which a range of other best management practices (BMPs) are proposed) to proceed to state permitting while the supplemental information is being prepared providing that:

- the Lead Fate and Transport Study and remedial investigations for Tango and Echo have been completed;
- action levels, acceptable to the Environmental Management Commission (EMC) for lysimeter/soil pore water monitoring have been established;
- a final Pollution Prevention (P2) Plan for both ranges has been approved by the small arms range (SAR) working group and EMC; and

- range-specific operations, maintenance and monitoring plans are completed for the ranges and approved by the SAR working group and EMC.

I expect the MANG to work with EMC and its Advisory Councils in developing the range P2 plans and an enforceable Environmental Performance Standard (EPS) for management of the small arms ranges that will protect groundwater and important wildlife habitat from lead contamination. I ask that EMC provide a letter to the MEPA Office with an update once the above steps have been completed. Allowing these two ranges to move forward with important conditions and safeguards will provide valuable data that will inform Phase II and III.

The MANG has indicated that it will prepare an Environmental Assessment (EA) under the National Environmental Policy Act (NEPA). I expect that the issues of the Scope below will be addressed by the EA and in the interest of streamlining review, I will accept the EA as a supplemental Environmental Impact Report (EIR) providing it addresses the issues of the Scope, or the MANG may file a separate supplemental EIR.

I have carefully reviewed the materials provided by MANG and the comment letters received, and have consulted with the Environmental Management Commission (EMC) and other state and federal agencies. Based on this review, and acknowledging the successful environmental review process and the management and oversight structure already established for MMR (as described below), I believe it is appropriate to allow details of range-specific pollution prevention (P2) plans to be finalized in the future through existing mechanisms<sup>1</sup>. These mechanisms include the Small Arms Range (SAR) working group, EMC's Science Advisory Council (SAC) and Community Advisory Council (CAC), and the EMC and U.S. Environmental Protection Agency (EPA) approval process. However, I also believe it is appropriate to require MEPA-level review of certain baseline information and the SAR draft P2 plan at this point in the process as outlined in the Scope below. The lead fate and transport study, and other investigation results to be included in the supplemental EIR, will inform the development of effective P2 plans and best management practices (BMPs) for the ranges, and demonstrate more specifically how plans for the Tango and Echo ranges will serve as models for effective P2 implementation and resource protection at other ranges in the future. Following completion of the supplemental EIR process, in order to maintain a complete project record, I expect that MANG will provide MEPA with copies of P2 plans when they are finalized, and regular updates on SAR activities as part of the annual State of the Reservation Reports.

I acknowledge the significant amount of work that the MANG has undertaken since the Final EIR review in 2001 to promote environmental protection at MMR. The MANG has fully embraced a rigorous and transparent process to review potential environmental impacts of its activities on the base. This work has included extensive technical analysis and public review in collaboration with EMC and its Advisory Councils. In addition, the EMC (which was established by Massachusetts General Law Chapter 47 of the Acts of 2002) has become fully integrated in consultation and oversight at MMR to ensure military and other activities are compatible with resource protection goals for the Upper Cape Water Supply Reserve. An inter-agency small arms

---

<sup>1</sup> While I believe it appropriate to use existing mechanisms to finalize range-specific plans in the future, I reserve the right to require future filings as necessary pursuant to the provisions of the MEPA regulations and the Special Review Procedure (SRP).

range (SAR) working group has also been established to discuss detailed range design, best management practices (BMPs), pollution prevention plans, community involvement opportunities, and the investigation and remediation of specific small arms ranges. The SAR working group includes representatives from the Massachusetts Department of Environmental Protection (MassDEP), the EPA, EMC, MANG, the MMR Environmental and Readiness Center (ER&C), and the Army Environmental Center (AEC). In short, the extensive environmental review of the MMR Master Plan, which culminated in the Secretary's Certificate on the Final Area-Wide Environmental Impact Report, has resulted in successful environmental management and oversight of the base. I appreciate MANG's on-going commitment to the environmental review process.

As further detailed in the NPC, the use of lead ammunition was not envisioned at the time of the Final EIR, and is prohibited by the Environmental Performance Standards (EPS) established as part of the Final EIR process and by the Administrative Orders issued by the EPA under the authority of the Safe Drinking Water Act. The proposed use of lead bullet ammunition and modification of an EPS will require approval from the Commonwealth of Massachusetts Environmental Management Commission (EMC). Use of lead ammunition will also require EPA approval and Administrative Order amendments.

### MEPA REVIEW

The Massachusetts Military Reservation (MMR) Master plan was designated as a "major and complicated" project and a Special Review Procedure was established as further detailed in the Certificate on the Notice of Project Change and the Major and Complicated Procedure (issued July 10, 1997). A Certificate on the Draft Area-Wide EIR was issued on October 22, 1999 and a Certificate on the Final Area-Wide EIR for the MMR Master Plan was issued on July 16, 2001. A Certificate on the NPC for proposed upgrades at Bravo, Echo and Sierra ranges was issued on March 24, 2006.

As part of the MMR Master Plan, the Camp Edwards Training Area (referred to as the northern 15,000 acres in the Final EIR) was set aside for permanent protection of water supplies, wildlife habitat, and open space, while allowing compatible military training. The Final EIR proposed a set of Environmental Performance Standards (EPS) that includes a prohibition on the use of lead-bullet ammunition at all Camp Edwards training areas. The Certificate on the Final EIR requires MEPA review of future projects within the Camp Edwards Training Area that exceed certain thresholds, including "lowered thresholds" for activities involving any new impervious area, vegetative clearing or other land alteration (as further detailed in the Informational Supplement to the FEIR, dated August 15, 2001).

The proposed project change, according to the NPC submitted by MANG on September 15, 2006, involves reintroduction of lead-bullet ammunition use at small arms firing ranges at the MMR. The NPC proposes modifying one of the EPSs in order to allow lead-bullet use. The MANG proposes to resume use of lead-bullet ammunition in a three-phased approach beginning in April 2007. Phase I includes the Tango and Echo ranges (T and E). Phase II includes the SE/SW Range and the A, J and K Ranges. Phase III includes the KD and ISBC Ranges, and other ranges as training needs are determined in the future.

In addition to the proposed change to the FEIR prohibition on use of lead ammunition, the project as proposed in the NPC exceeds one of the "lower thresholds" established for MMR because it includes construction of approximately 2,000 square feet (sf) of buildings for a pavilion and bleacher enclosure (which exceeds the lowered threshold of 500 square feet (sf) for a new building or structure).

The NPC proposes a Small Arms Range (SAR) Pollution Prevention (P2) Plan and use of best management practices (BMPs) to manage lead and protect groundwater resources. The MANG requests for approval from EMC and the EPA are focused initially on the Phase I ranges, Tango and Echo. The NPC proposes use of a bullet catcher system (known as the STAPP system) for the Tango range as well as installation of one monitoring well and several lysimeters to measure groundwater and pore-water. The NPC proposes BMPs for the Echo range including an 18-inch layer of sand on the range floor, a horizontal berm to contain lead, periodic sifting to remove lead slugs, and a monitoring well and lysimeters.

The NPC identifies a range of generally applicable operational, administrative and design BMPs that may be used for training areas depending on range-specific conditions. These include earthen berms of varying design, the STAPP bullet trap system, adjustment of soil pH, metals monitoring and sampling, and periodic removal of metals from berms and soils. Potential BMPs also include range grading and use of vegetation and wind breaks to manage stormwater flows and minimize erosion. P2 plans and BMPs are presented in general at a conceptual level of detail in the NPC. Selection of the most appropriate BMPs, and detailed P2 and monitoring plans for the ranges, have yet to be completed.

The MANG's current proposal, to return to the use of lead ammunition on small arms ranges, raises a number of issues relevant to resource protection and requires further analyses of baseline environmental data and development of specific management plans for each of the ranges. The location of the base over the Cape Cod sole source aquifer mandates careful consideration of potential environmental impacts associated with use of lead ammunition. As noted in the EMC and EPA comment letters, the use of lead ammunition is being considered initially only for the Tango and Echo ranges. EMC will consider additional ranges for approval when MANG has demonstrated the ability to design and operate these ranges in an environmentally sound manner.

The MANG should prepare a supplemental EIR as outlined below. However, the MANG may proceed with the EMC approval process for the use of lead ammunition on the Tango and Echo ranges prior to completion of the supplemental EIR. Based on review of the NPC, comments received, and consultation with state and federal agencies, I am satisfied that the proposed use of the STAPP system at the Tango range represents best available technology for lead capture and containment, and maximum feasible protection for groundwater and wildlife resources. I am also satisfied that, provided that the conditions of this Certificate are met, an effective pollution prevention plan with appropriate BMPs and monitoring plans to ensure resource protection can be established for the Echo range. In accordance with Chapter 47 of the Acts of 2002, which established the EMC, proposed changes to the Environmental Performance Standards (EPS) will be noticed in the *Environmental Monitor* for a 30-day public comment period.

## SCOPE

Draft SAR Pollution Prevention (P2) Plan

Since the filing of the NPC, a Draft Pollution Prevention plan has been prepared and distributed to the EMC, MassDEP, the EPA and to members of the public. The supplemental EIR should include a copy of the most up-to-date draft Pollution Prevention Plan, which should include an evaluation of alternatives considered, proposed monitoring program and action thresholds, and plans for on-going evaluation and updating of the P2 Plan. To the extent range-specific plans have been developed (e.g. for Phase I ranges), the supplemental EIR should discuss alternative P2 measures considered and discuss the rationale for selection of specific BMPs and monitoring plans. I expect that the Phase I range analyses and plans, as presented in the supplemental EIR, will serve as a model to demonstrate the effectiveness of MANG's proposed strategy for protection of water supply and wildlife habitat in other Camp Edwards training areas.

The supplemental EIR should discuss how P2 Plans for each range will:

- a) maximize bullet recovery and recycling;
- b) prevent or minimize bullet fragmentation and ricochets;
- c) prevent or minimize leaching of range-associated metals and other contaminants to groundwater; and
- d) include appropriate monitoring requirements, such as soil, groundwater, and lysimeter pore monitoring, and action thresholds that will trigger operational or design changes.

Lead Fate and Transport Study

MANG is undertaking a lead fate and transport study, which will provide valuable information to inform the SAR P2 plan and range-specific BMPs. As further detailed in the EPA letter, this is one of several tasks the MANG must complete in order for EPA to consider approval of a return to lead ammunition at MMR. As noted in the MassDEP comment letter, this study must also be reviewed by MassDEP and EMC before the MANG can return to use of lead ammunition. The Supplemental EIR should include the lead fate and transport study and discuss how the study is being used to inform the SAR P2 Plan and development of range-specific BMPs and operation, maintenance and monitoring plans.

Remedial Investigations

The supplemental EIR should include an update on the status of soil and groundwater analysis and other remedial investigations and reporting required by EPA. As further detailed in EPA's comment letter, a remedial investigation report, including a risk assessment, is one of the critical tasks to be completed and approved by EPA before a change to lead ammunition can be approved. I expect the MANG to coordinate with EPA on this issue. The supplemental EIR should summarize the results of investigations, and discuss how proposed training activities will avoid interference with any response actions that may be required. The supplemental EIR should

discuss how soil and groundwater analysis and other remedial investigations are being used to inform the SAR P2 Plan and development of range-specific BMPs and operation, maintenance and monitoring plans.

#### Alternatives - Ammunition

The NPC notes that a variety of alternative ammunition is available, and that alternative ammunition is problematic due to decreased training realism, uncertainty regarding environmental impacts and management techniques, and procurement difficulties. The use of lead ammunition is being proposed as an alternative to tungsten-nylon ammunition, which is no longer considered viable due to concerns regarding its toxicity and potential groundwater impacts. The supplemental EIR should include a discussion of other non-lead alternatives to document the types of alternatives considered and the rationale for elimination of non-lead ammunition and selection of lead-bullets as the preferred option.

#### Public Involvement

The supplemental EIR should include a draft public involvement plan that identifies opportunities for public involvement during the state and federal review process for the proposed return to use of lead ammunition. The plan should clearly identify points in the process where public involvement will occur, including specific documents that will be available for review and public comment, and include a timeline.

#### Regulatory Review

The supplemental EIR should include a revised schedule (figure 2 in NPC) for tasks to be completed as part of the state and federal review process for a return to use of lead ammunition. The Supplemental EIR should include an update on consultations with the inter-agency SAR working group and a revised schedule based on these consultations. The Supplemental EIR should provide an update on the NEPA Environmental Assessment (EA) process.

#### Mitigation and Section 61 Findings

The supplemental EIR should include draft Section 61 Findings for the EMC approval, and a revised version of the MANG Section 61 Findings for the Area-Wide Final EIR Master Plan. The Section 61 Findings should include details on proposed measures to avoid and minimize, or mitigate adverse impacts associated with the return to lead use. The draft findings should include clear commitments to range management and pollution prevention BMPs, and include a timeline for implementation and information on responsibilities for funding and implementation.

The NPC indicates that range-specific BMPs will be implemented subject to availability of funding. The supplemental EIR should provide an update on funding for the proposed range improvement and pollution prevention measures, and clarify MANG commitments to BMPs to avoid and minimize potential impacts associated with use of lead ammunition.

The proposed Section 61 Findings for EMC approval should include draft language for the proposed EPS modification and discuss the process for future EMC approvals based on a phased approach to resumption of lead-bullet ammunition on ranges. I expect the MANG to work closely with the EMC and its Advisory Councils, and other stakeholders, to develop language for an enforceable EPS that will protect groundwater and important wildlife habitat from lead contamination.

### Comments

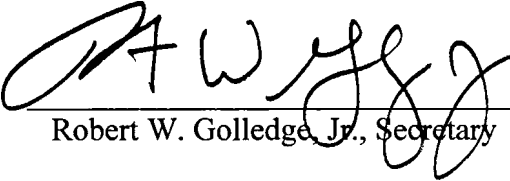
The supplemental EIR should respond to the comments received on the NPC to the extent that they are within MEPA jurisdiction. The proponent should use either an indexed response to comment format, or direct narrative response. The supplemental EIR should present any additional narrative or quantitative analysis necessary to respond to the comments received.

### Circulation

The supplemental EIR should be circulated in compliance with Section 11.16 of the MEPA regulations and copies should be sent to the list of "comments received" below. A copy of the supplemental EIR should be made available for public review at Bourne, Falmouth, Mashpee, and Sandwich public libraries.

November 9, 2006

DATE



Robert W. Golledge, Jr., Secretary

Cc: Mark J. Begley, Environmental Officer, Environmental Management Commission

### Comments received:

10/27/06	Association to Preserve Cape Cod
10/29/06	Minos Gordy
10/30/06	<b>Executive Office of Environmental Affairs, Environmental Management Commission</b>
10/30/06	United States Environmental Protection Agency (EPA) Region 1
10/30/06	Department of Environmental Protection, Southeast Regional Office
10/30/06	Lawrence P. Cole
11/01/06	Senator, Robert A. O'Leary

RWG/AE/ae