

1 **Section 3**

2
3 **3.0 ALTERNATIVES**

4 **3.1 Introduction**

5 The purpose of this section is to identify, describe, and compare the programmatic alternatives
6 for the execution of the Chemical and Biological Defense Program (CBDP). This section also
7 summarizes decision methodology used to identify the environmentally preferred alternative.
8 Comparison of the alternatives is undertaken in compliance with the Council on Environmental
9 Quality (CEQ) regulations (40 *Code of Federal Regulations* [CFR] 1500 through 1508)
10 implementing the National Environmental Policy Act (NEPA) and the complementary
11 regulations for the Office of the Secretary of Defense (32 CFR 188), the Air Force (32 CFR
12 989), the Army (32 CFR 651), and the Navy and Marine Corps (32 CFR 775).

13
14 The treatment of alternatives is the heart of an environmental impact statement (EIS). For every
15 choice among alternatives, tradeoffs must be considered. The goals of the alternatives
16 presentation are to: (1) define the issues and tradeoffs so as to provide the decision makers with
17 a basis for choosing among the reasonable options, and (2) provide a solid background to
18 facilitate informed public input in accordance with 40 CFR 1502.14.

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20 **3.2 Description of the Alternatives Considered**

21 **3.2.1 Proposed Action**

22 The proposed action consists of the execution of an integrated CBDP designed to protect our
23 soldiers, sailors, marines, and airmen from the evolving chemical and biological threats they may
24 encounter on the battlefield. The proposed action has been discussed in detail in Section 2.0.

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26 **3.2.2 No Action Alternative**

27 A No Action Alternative is required by CEQ regulations implementing NEPA. The No Action
28 Alternative for this programmatic EIS (PEIS) is continuation of current CBDP operations as
29 described in and covered by existing environmental analyses.

30
31 **3.2.3 Other Reasonable Alternatives**

32 No other reasonable alternatives were identified during the public scoping process.

33
34 **3.3 Impacts of Alternatives**

35 This PEIS was prepared for an ongoing program, with various research, development, and
36 acquisition activities conducted in existing facilities. Therefore, impacts on the environment
37 associated with construction actions are not addressed in this document.

38
39 The analytical methodology outlined in Section 5.1 provides the framework for programmatic
40 evaluation. For each environmental attribute discussed in Sections 5.2 through 5.12, the
41 potential impacts of CBDP activities are identified. The actual impacts at the example sites are
42 then evaluated qualitatively, based on site-specific information on the existing environment

1 discussed in Sections 4.2 through 4.7 and the applicable benchmark regulations and guidance
2 and mitigation measures for existing CBDP activities discussed in Section 2.3.

3
4 The potential for significant adverse impacts is related primarily to safety, health, security, and
5 waste management considerations. This conclusion, generally identified in the *Biological*
6 *Defense Research Program Final Programmatic Environmental Impact Statement* (U.S. Army
7 Medical Research and Development Command, 1989), basically still holds true today, although
8 the security arm has taken on increased emphasis since 11 September 2001. Safety, health, and
9 security impacts apply to workplace activities at CBDP sites, which may affect the workforce
10 through possible exposures to hazardous and/or toxic chemicals; high-hazard biological materials
11 (for the purposes of this document, those materials requiring biosafety level-3 and -4
12 containment facilities and procedures); lasers; and radiation. Waste management impacts result
13 from the accumulation, storage, treatment, and disposal of sanitary and/or industrial wastewater,
14 solid and hazardous waste, and air emissions at and from sites of CBDP activity, which may also
15 affect the workforce and the local population. In addition, potential environmental degradation
16 from the waste management impacts can lead to secondary impacts on various environmental
17 attributes, as discussed in Section 1.3.3.2.

18
19 The benchmark regulations and guidance, including regulations of the Department of Defense
20 components presented in Section 2.3, provide engineering controls, protective equipment, and
21 procedures, as applicable, for security and to protect worker health and safety and the
22 environment. Additional safeguards are available through state and local regulations and site-
23 specific regulations and standard operating procedures for CBDP activities, as illustrated for the
24 selected example sites in Section 2.4. If these provisions are effective, significant adverse
25 consequences would be expected to occur only as a result of either procedural noncompliance—
26 negligent or intentional—or as a result of failure of the engineering controls or protective
27 equipment.

28
29 The effectiveness of benchmark guidance and regulations on programmatic occupational safety
30 and health and public health is demonstrated in Section 5.12, using programmatic evaluation
31 reports and documented information on the occurrence of accidents, injuries, or laboratory-
32 acquired illnesses to demonstrate how existing protective measures for occupational safety and
33 health have performed. Each of the analyses presented in Sections 5.2 through 5.12 ends with a
34 summary and qualitative conclusions concerning existing impacts of CBDP activities on the
35 environmental attributes. This provides the basis for projection from the example sites to the
36 programmatic level, presented in Section 5.13. Analyses of cumulative impacts appear in
37 Section 5.14, comprised of cumulative impacts with time, cumulative impacts with other
38 programs, and regionally cumulative impacts.

39 **3.4 Comparison of Alternatives and Selection of the Preferred Alternative**

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41 Comparison of the alternatives and selection of the Preferred Alternative appear in Section 5.15.
42 The conclusions reached in Sections 5.13 and 5.14 were applied to qualitative evaluation of
43 potential future environmental impacts for both the proposed action and the No Action
44 Alternative. This information provided the basis for selection of the proposed action as the
45 Preferred Alternative.