

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN (2019-2023)

STATE MILITARY RESERVE
City of Virginia Beach, Virginia



Virginia Department of Military Affairs
Virginia Army National Guard
NGVA-FMO-ENV
10th Street, Building 316, Fort Pickett
Blackstone, Virginia 23824-6316

Draft – July 2019

Proponent: Virginia Army National Guard

Affected Jurisdiction: State Military Reserve, City of Virginia Beach, Virginia

Programmed FY: 2019-2023

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE



Printed on Recycled Paper

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN – STATE MILITARY RESERVE

ENVIRONMENTAL ASSESSMENT ORGANIZATION

This Environmental Assessment (EA) addresses the proposal to implement the State Military Reservation (SMR) Integrated Natural Resource Management Plan (INRMP) and provides National Environmental Policy Act (NEPA) documentation for its implementation.

As required by the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*), the Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 C.F.R. 1500-1508), and 32 C.F.R. Part 651 (*Environmental Analysis of Army Actions*, Final Rule), the potential effects of the Preferred Action Alternative are analyzed. This EA will facilitate the decision-making process by the Virginia Army National Guard (VAARNG) and the National Guard Bureau (NGB) regarding the Preferred Action Alternative and its considered alternatives, and is organized as follows:

- **EXECUTIVE SUMMARY:** Describes the Preferred Action Alternative and its considered alternatives; summarizes environmental, cultural, and socioeconomic consequences; and compares potential effects associated with the two considered alternatives, including the No Action Alternative.
- **SECTION 1 PURPOSE AND NEED:** Summarizes the purpose of and need for the Preferred Action Alternative, provides relevant background information, and describes the scope of this EA.
- **SECTION 2 DESCRIPTION OF THE PREFERRED ACTION ALTERNATIVE:** Describes the Preferred Action Alternative.
- **SECTION 3 ALTERNATIVES CONSIDERED:** Presents alternatives for implementing the Preferred Action Alternative, including applied screening criteria, alternatives retained for further analysis, and alternatives eliminated, as well as a brief explanation of the rationale for eliminating certain alternatives.
- **SECTION 4 AFFECTED ENVIRONMENT:** Describes relevant components of the existing environmental, cultural, and socioeconomic setting (within the Region of Influence [ROI]) of the considered alternatives.
- **SECTION 5 ENVIRONMENTAL CONSEQUENCES:** Identifies individual and cumulative potential environmental, cultural, and socioeconomic effects of implementing the considered alternatives; and identifies proposed mitigation and management measures, as and where appropriate.
- **SECTION 6 COMPARISON OF ALTERNATIVES AND CONCLUSIONS:** Compares the environmental effects of the two considered alternatives and summarizes the significance of potential individual and cumulative effects from these alternatives.
- **SECTION 7 REFERENCES:** Provides bibliographical information for cited sources.
- **SECTION 8 LIST OF PREPARERS:** Identifies document preparers and their areas of expertise.
- **SECTION 9 AGENCIES AND INDIVIDUALS CONSULTED:** Lists agencies and individuals consulted during preparation of this EA.

SIGNATURE PAGE
ENVIRONMENTAL ASSESSMENT
OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN
FY 2019-2023
ARMY NATIONAL GUARD – STATE MILITARY RESERVE
June 2019

Commander, State Military Reserve

Date

Division of Plans, Training and Security, Fort Pickett

Date

Environmental Program Manager, VAARNG

Date

EXECUTIVE SUMMARY

INTRODUCTION

The Sikes Act Improvement Act (SAIA) of 1997 requires Integrated Natural Resources Management Plans (INRMPs) for all Department of Defense (DoD) lands and waters that have significant natural resources. The INRMP is to be prepared in cooperation with the U.S. Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) and the Virginia Department of Game and Inland Fisheries (VDGIF).

This document addresses the proposal to implement the State Military Reserve (SMR) INRMP and provides National Environmental Policy Act (NEPA) documentation for its implementation. The SMR INRMP covers FY 2019-2023. The proposed implementation of the INRMP is needed to comply with the Sikes Act and Army Regulation 200-1, ensure that all natural resources activities are integrated to prevent redundancy of effort, and manage SMR on an ecosystem basis to sustain the land for long term military training. National Environmental Policy Act (NEPA) analysis may be required for specific projects, such as non-standard applications of pesticides and projects with potential impacts to threatened and endangered species. Consultation under Section 7 of the Endangered Species Act (ESA) is not necessary for the INRMP and will be conducted for future projects (federal “agency actions” under the ESA) on a case by case basis.

PURPOSE AND NEED

The purpose of this Environmental Assessment (EA) is to address and evaluate the natural resources management actions outlined within the INRMP. This plan proposes a number of initiatives to protect and enhance the existing natural resources at SMR. The purpose of the recommended actions proposed in the INRMP and addressed in this EA are to assist the Virginia Army National Guard (VAARNG) in the maintenance and operation of existing facilities and activities, and in developing new facilities as needed, in compliance with federal and state legislation protecting natural resources. The actions are intended to ensure that natural resource conservation measures and ARNG activities on mission lands are integrated and are consistent with federal stewardship requirements and the greater military mission.

PREFERRED ACTION ALTERNATIVE

The Preferred Action Alternative is to implement the SMR INRMP for FY 2019 to 2023. The Preferred Action Alternative will assist the VAARNG in the implementation of a coordinated and integrated program to provide for the conservation and rehabilitation of natural resources at the SMR while reaching goals needed to meet mission essential requirements.

ALTERNATIVES CONSIDERED

There were two alternatives considered in the analysis. The No Action Alternative is to not implement an INRMP at SMR. The Preferred Action Alternative is the implementation of the SMR INRMP for FY 2019-2023. Implementing the SMR INRMP is the Preferred Action Alternative.

ENVIRONMENTAL CONSEQUENCES

No significant adverse environmental or socio-economic effects have been identified for implementing the Preferred Action Alternative. Per 32 C.F.R. 651.48(b)(1), INRMP implementation and the No Action Alternative will have no long-term direct or indirect impacts regarding the following areas, and they were eliminated from further discussion: noise, air quality, geology and topography, socioeconomic, environmental justice, hazardous and toxic materials/wastes, and infrastructure.

Effects on land use, soils, water resources, biological resources, and cultural resources are analyzed. The following table summarizes the overall consequences:

Table 1. Preferred Action Alternatives Comparison

Resource Area	No Action Alternative	Preferred Action Alternative
Land Use	Less than significant adverse impacts are anticipated due to inefficient land use and minimal habitat protection.	Long-term significant beneficial impacts are anticipated due to more efficient land use and increase in habitat protection.
Air Quality	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Noise	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Geology, Topography, and Soils	Less than significant long-term adverse impacts are anticipated from dune erosion.	No impacts to geology, topography or soils are anticipated; long-term significant beneficial impacts due to reduced dune erosion.
Water Resources	Less than significant long-term adverse impacts are anticipated from erosion and nutrient runoff.	Long-term significant beneficial impacts from riparian habitat and wetland management.
Biological Resources	Long and short-term significant adverse impacts due to the discontinuation of monitoring and protective measures.	Long-term significant beneficial impacts to biological resources due to increased monitoring that will influence future management; short-term, less-than-significant adverse impacts would be expected as a result of pest and invasive species management activities, however implementation of the NGB Integrated Pest

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

Resource Area	No Action Alternative	Preferred Action Alternative
		Management Plan (IPMP) will ensure no adverse impacts occur.
Cultural Resources	No significant direct/indirect effects.	VAARNG performed tribal consultation because implementation of the INRMP may have the potential to significantly affect protected tribal resources, tribal rights, or Indian land. Responses indicated that implementing the INRMP would not adversely impact culturally significant tribal resources; no mitigation required.
Socioeconomics	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Environmental Justice	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Infrastructure	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Hazardous and Toxic Materials/Wastes	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.

CONCLUSIONS

Based upon the findings of this EA, implementation of the Preferred Action Alternative will not result in adverse environmental or socio-economic impacts. The goals and purposes of the SMR INRMP are to protect and enhance the environment while maintaining “no net loss” of mission training land. Environmental impacts that were identified are minor and would be addressed using control measures and best management practices. Based on the findings of this EA, the VAARNG should implement the SMR INRMP for FY 2019 to 2023, as written and that a “Finding of No Significant Impact” (FONSI) be issued for the Preferred Action Alternative.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
1.0 PURPOSE OF AND NEED FOR THE PREFERRED ACTION ALTERNATIVE	1
1.1 INTRODUCTION.....	1
1.2 PURPOSE AND NEED	2
1.3 SCOPE OF THE EA.....	3
1.4 DECISION-MAKING	3
1.5 PUBLIC AND AGENCY INVOLVEMENT	3
1.6 NEPA, ENVIRONMENTAL, AND OTHER DOCUMENTS AND PROCESSES	5
1.7 REGULATORY FRAMEWORK	5
2.0 DESCRIPTION OF THE PREFERRED ACTION ALTERNATIVE AND ALTERNATIVES	7
2.1 INTRODUCTION.....	7
2.2 ALTERNATIVES DEVELOPMENT	7
2.3 EVALUATED ALTERNATIVES	7
2.5 ALTERNATIVE COMPARISON MATRIX.....	10
3.0 AFFECTED ENVIRONMENT	12
3.1 LOCATION DESCRIPTION.....	12
3.2 LAND USE	12
3.3 ELIMINATED RESOURCE AREAS	13
3.4 GEOLOGY, TOPOGRAPHY, AND SOILS	16
3.5 WATER RESOURCES	18
3.6 BIOLOGICAL RESOURCES	18
3.7 CULTURAL RESOURCES	20
4.0 ENVIRONMENTAL CONSEQUENCES.....	23
4.1 LAND USE	23
4.2 GEOLOGY, TOPOGRAPHY, AND SOILS	23
4.3 WATER RESOURCES	24
4.4 BIOLOGICAL RESOURCES	25
4.5 CULTURAL RESOURCES	26
4.6 CUMULATIVE EFFECTS	27
4.7 MITIGATION MEASURES	28
5.0 COMPARISON OF ALTERNATIVES AND CONCLUSIONS	29
5.1 COMPARISON OF THE ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES	29
5.2 CONCLUSIONS	30
6.0 REFERENCES.....	31
7.0 GLOSSARY OF TERMS.....	34

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

8.0 LIST OF PREPARERS AND REVIEWERS 37
9.0 AGENCIES AND INDIVIDUALS CONSULTED 38

APPENDICES

Appendix A: CZM Consistency Documents

FIGURES

Figure 1 - Location Map

Figure 2 - Site Map

TABLES

- Table 1. Alternative Comparison Matrix
- Table 2. Coastal Zone Management Act Programs
- Table 3. INRMP Program Area Goals and Objectives
- Table 4. Alternative Comparison Matrix
- Table 5. SMR Resources with No Impacts.
- Table 6. Soil Characteristics
- Table 7. Threatened and Endangered Species
- Table 8. Alternative Comparison Matrix

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

ACRONYMS

ACHP	Advisory Council on Historic Preservation
ARNG	Army National Guard
ARNG-I&E	Army National Guard Installations and Environment
ARPA	Archeological Resources Preservation Act (1979)
BMP	Best Management Practices
CAA	Controlled Access Area
CEQ	Council on Environmental Quality
C.F.R.	Code of Federal Regulations
CMI	Conservation Management Institute
CPLO	Community Planning Liaison Officers
CZM	Coastal Zone Management
CZMA	Coastal Zone Management Act
DA	Department of the Army
DCR	Department of Conservation and Recreation
DEQ	Department of Environmental Quality
DoD	Department of Defense
DoDI	Department of Defense Instruction
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FCC	Federal Consistency Certification
FONSI	Finding of No Significant Impact
GIS	Geographic Information System
ICRMP	Integrated Cultural Resources Management Plan
IICEP	Intergovernmental Coordination of Environmental Planning
INRMP	Integrated Natural Resource Management Plan
IPMP	Integrated Pest Management Plan
MEDAC	Military Economic Development Advisory Committee
MOU	Memorandum of Understanding
NAGPRA	Native American Graves Protection and Repatriation Act (1990)
NEPA	National Environmental Policy Act (1969)

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

NGB	National Guard Bureau
NHPA	National Historic Preservation Act (1966)
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
PLS	Planning Level Survey
ROI	Region of Influence
ROTC	Reserve Officers' Training Corps
SAIA	Sikes Act Improvement Act
SHPO	State Historic Preservation Officer
SMR	State Military Reserve
SOP	Standard Operating Procedures
U.S.C.	United States Code
USFWS	U. S. Fish and Wildlife Service
USACE	U.S. Army Corps of Engineers
VAARNG	Virginia Army National Guard
VDGIF	Virginia Department of Game and Inland Fisheries
VDMA	Virginia Department of Military Affairs
VDOF	Virginia Department of Forestry

1 **1.0 PURPOSE OF AND NEED FOR THE PREFERRED ACTION**
2 **ALTERNATIVE**

3 **1.1 INTRODUCTION**

4 This Environmental Assessment (EA) is written in support of the Integrated Natural Resource
5 Management Plan (INRMP) that is proposed for State Military Reserve (SMR) by the Virginia Army
6 National Guard (VAARNG) and the environmental effects that would result from the
7 implementation of this plan. The intent of this plan is to facilitate the integration of natural
8 resource management into the day-to-day activities of SMR, City of Virginia Beach, Virginia.

9 The Sikes Act Improvement Act of 1979 (SAIA) requires INRMPs for all Department of Defense
10 (DoD) lands and waters that have significant natural resources. The overall goal of the INRMP is
11 to ensure sound environmental stewardship of the public lands managed at SMR and the
12 objective is to ensure that Army activities on mission land are integrated and consistent with
13 federal land stewardship objectives. The SMR INRMP will serve as the principal management
14 plan governing all natural resource activities on the installation and is based upon ecosystem
15 management principles. In accordance with the Sikes Act, the INRMP will ensure there is no net
16 loss in the capability of the installation lands to support the military mission.

17 The SMR INRMP covers fiscal year (FY) 2019 through 2023 and is a new INRMP. Section 101(b)(2)
18 of the Sikes Act [16 U.S.C. 670a(b)(2)] states that each INRMP “must be reviewed as to operation
19 and effect by the parties thereto (Army National Guard [ARNG], U.S. Fish and Wildlife Service
20 [USFWS], National Marine Fisheries Service (NMFS) and the Virginia Department of Game and
21 Inland Fisheries (VDGIF)) on a regular basis, but not less often than every 5 years.” Additionally,
22 annual reviews may be used, as appropriate, to determine if a formal review for operation and
23 effect is warranted. Annual reviews are mandatory per DoD guidance and provide the
24 foundation for the review for operation and effect of the INRMP. “The INRMP is not intended to
25 function as a compilation of all natural resource management activities. Rather, the INRMP is
26 intended to integrate natural resource management activities across the installation to meet the
27 plan’s specific goals of sustaining and enhancing military training” (NGB Guidance 9 April 2012).
28 This EA is a broad overview of the activities proposed in the INRMP, and future NEPA may be
29 needed for projects to be implemented in the INRMP. Consultation under Section 7 of the ESA is
30 not being conducted for the INRMP and will be conducted for future projects on a case by case
31 basis.

32 This EA is prepared to comply with the requirements of the ARNG NEPA Handbook (2011),
33 Council of Environmental Quality (CEQ) National Environmental Policy Act (NEPA), 40 C.F.R. Part
34 1500-1508, and the Department of the Army’s Final Rule (32 C.F.R. Part 651) “Environmental
35 Analysis of Army Actions” to consider environmental consequences when authorizing or
36 approving major federal actions. Per amendments to 10 United States Code (U.S.C.) 10501,
37 described in DoD Directive 5105.77 (21 May 2008), the National Guard Bureau (NGB) is a joint
38 activity of the DoD. NGB serves as a channel of communication and funding between the US

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

39 Army and state Guard organizations in the 54 US states and territories. The ARNG is a Directorate
40 within NGB. ARNG Installations and Environment (ARNG-I&E) is the division within ARNG that is
41 responsible for ARNG environmental matters, including the ARNG's compliance with the NEPA.
42 As ARNG-I&E is the federal decision-maker concerning this Preferred Action Alternative and
43 controls the federal funds that would be used for its implementation, this is a federal action.

44 **1.2 PURPOSE AND NEED**

45 The goal of the ARNG's environmental programs and policies is conserving the environment for
46 mission sustainability (Department of Defense [DoD] Memorandum 4715.03 November 25, 2013).
47 The proposed INRMP is intended for use by the NGB, and the VAARNG, as the primary tool for
48 managing natural resources at SMR, in accordance with Code of Federal Regulations, Title 32,
49 Part 651 – Environmental Analysis of Army Actions (32 C.F.R. Part 651, 2002) and the provisions of
50 the SAIA.

51 The purpose of the INRMP (Preferred Action Alternative) is to carry out a coordinated and
52 integrated program to provide for the conservation and rehabilitation of natural resources at the
53 SMR while reaching goals needed to meet mission essential requirements.

54 Management practices identified in this INRMP have been developed to enhance and maintain
55 biological diversity within the Installation's boundary while providing connectivity the SMR
56 ecosystem. Specifically, management practices strive to do the following:

- 57 1. Manage game and non-game species and their habitats to maintain biodiversity;
- 58 2. Promote the continued existence of federal and/or state rare species and the potential
59 utilization of site resources by threatened or endangered species;
- 60 3. Maintain and protect Lake Christine as an asset to SMR, the military training mission, and
61 the surrounding community;
- 62 4. Protect and enhance existing wetlands;
- 63 5. Protect, create and maintain pollinator habitat;
- 64 6. Maintain biological diversity in forested systems;
- 65 7. Reduction of pest populations through use of integrated combination of techniques;
- 66 8. Allow the use of SMR for natural resources-based activities in a manner that does not
67 interfere with mission activities;
- 68 9. Consistency with the Coastal Zone Management (CZM) programs on SMR;
- 69 10. Undertake adaptation and resilience planning in order to incorporate potential climate
70 change impacts in future plans and projects; and
- 71 11. Enforce applicable natural resource laws and regulations which are critical to the
72 successful implementation of ecosystem management.

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

73 Implementation of the program elements of the INRMP will support the VAARNG's continuing
74 requirement to ensure the safety and efficiency of the mission at SMR, practice sound resource
75 stewardship, and comply with environmental policies and regulations.

76 The need for the Preferred Action Alternative is to:

- 77 1. Execute the INRMP to satisfy statutory and regulatory requirements, such as the SAIA (16
78 U.S.C. § 670a et seq), AR 200-1 – Environmental Protection and Enhancement, and
79 Department of Defense (DoD) Instruction 4715.03 – Environmental Conservation Program;
80 and,
- 81 2. Ensure that natural resource compliance and conservation is maintained while reaching
82 training goals needed to meet mission essential requirements.

83 **1.3 SCOPE OF THE EA**

84 This EA evaluates direct, indirect, and cumulative effects of implementing the proposed SMR
85 INRMP. Some projects, such as non-standard applications of pesticides or projects that may
86 affect an endangered species, would require additional NEPA analysis and consultation with the
87 USFWS. The EA evaluates the No Action Alternative and the Preferred Action Alternative
88 (implementation of the INRMP). Effects on land use, soils, water resources, biological resources,
89 and cultural resources are analyzed. Consistent with 40 C.F.R. 1501.7(a)(3), this EA considers in
90 detail impacts on those resources that have the potential to be affected by the implementation
91 of the Preferred Action Alternative. These include land use, soils, water resources, biological
92 resources and cultural resources. This EA is included as an appendix to the INRMP itself to reduce
93 redundancy of information and appendices that are common to both documents. This EA is not
94 a stand-alone document and must be read as part of the entire INRMP. Please refer to the SMR
95 INRMP for additional information on the physical environment (Section 3); natural resources
96 program management (Section 5); and implementation (Section 6).

97 **1.4 DECISION-MAKING**

98 If SMR determines that the implementation of the goals and actions defined in the 2019-2023
99 INRMP would have a significant impact on the quality of the human environment, an EIS will be
100 prepared. Should SMR conclude that there would be no significant impacts, a Finding Of No
101 Significant Impact (FONSI) will be prepared. The Chief of ARNG-I&E will sign the FONSI and a
102 notice of availability will be published in local newspapers.

103 **1.5 PUBLIC AND AGENCY INVOLVEMENT**

104 The SAIA requires INRMPs for all DoD lands and waters that have suitable habitat to support
105 natural ecosystems. The INRMP is to be prepared with the USFWS, NOAA-NMFS and the VDGIF.
106 Full implementation of this INRMP requires collaboration and coordination with many internal
107 and external parties. Involvement of federal, state, and local agencies; federally recognized

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

108 Native American Tribes; and concerned organizations and individuals are required per CEQ, 32
109 C.F.R. 651 “*Environmental Analysis of Army Actions*” and are a significant component of the
110 INRMP development and EA process. To promote open communication and improve the
111 decision-making process, VAARNG provides opportunities to participate in the INRMP review
112 through the NEPA process. Correspondence is located in Appendix C of the SMR INRMP. The list
113 of stakeholders can be found in Section 8.0 of this EA and additional information on stakeholders
114 can be found in Section 1.4 of the INRMP.

115 **1.5.1 PUBLIC REVIEW**

116 The VAARNG will publish and distribute the draft FONSI, INRMP and EA for a 30-day public
117 comment period, as announced in a Notice of Availability (NOA), in The Virginian-Pilot, a local
118 Virginia Beach newspaper of general circulation. The locations the EA and draft FONSI will be
119 available for public review will be listed in that NOA. The public may obtain information of the
120 status of the draft FONSI and EA, as well as submit comments during the 30-day public review
121 period, through the VAARNG Environmental Office, Fort Pickett Building 316 Blackstone, Virginia
122 23824, (434) 298-6226.

123 **1.5.3 AGENCY COORDINATION**

124 The Coastal Zone Management Act (CZMA) of 1972 (16 U.S.C. § 1451, et seq., as amended)
125 provides assistance to states, in cooperation with federal and local agencies, for developing
126 land and water use programs in the coastal zone. While state programs do not have jurisdiction
127 on federal lands, the CZMA requires federal consistency for activities which have reasonably
128 foreseeable effects on any coastal use (land or water) or natural resource of the coastal zone
129 be consistent with the enforceable policies of a state’s federally approved coastal
130 management program.

131 A request for CZMA Federal Consistency Certification (FCC) was submitted to the Virginia
132 Department of Environmental Quality (DEQ) on April 12, 2017. The following Virginia state and
133 local agencies participated in the review for the CZM FCC:

- 134 • DEQ
- 135 • Department of Conservation and Recreation (DCR)
- 136 • Department of Health (VDH)
- 137 • Department of Historic Resources (DHR)
- 138 • Virginia Marine Resources Commission (VMRC)

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

139 The Hampton Roads Planning District Commission (HRPDC), VDGIF, Virginia Department of
140 Forestry (DOF) and the City of Virginia Beach were also invited to comment on the project.

141 In a letter dated June 28, 2017 DEQ concurred with the VAARNG that the INRMP proposal is
142 consistent with the Virginia CZM Program provided all applicable permits and approvals are
143 obtained. A copy of the DEQ correspondence is included in Appendix A.

144 **1.5.4 NATIVE AMERICAN CONSULTATION**

145 The VAARNG has considered the Department of Defense Instruction (DoDI) 4710.02 *DoD*
146 *Interactions with Federally-Recognized Tribes* (dated 24 September 2018); EO 13175; AR 200-1,
147 *Environmental Protection and Enhancement* (Army Regulation 2007); NEPA; the NHPA; the
148 Native American Graves Protection and Repatriation Act; and DHR guidance. Tribal
149 consultation was initiated via a letter dated May 2, 2017 submitted by the VAARNG to seven
150 federally recognized tribes recorded as having cultural affiliation and interest with the land area
151 now comprising SMR. Additional emails and telephone calls made on May 31, 2017 and June 14,
152 2017 to all tribes from which a response to the initial letter was not received. A copy of the
153 memorandum documenting the coordination is included in Appendix C of the INRMP.

154 **1.6 NEPA, ENVIRONMENTAL, AND OTHER DOCUMENTS AND PROCESSES**

155 SMR approved a Real Property Master Plan (RPMP) known as the Vision Plan (2012) and the
156 associated EA in 2012. The plan was created in support of the statewide planning efforts of the
157 Virginia Department of Military Affairs (VDMA). The Vision Plan provides a framework for future
158 land use and facilities decisions and will be implemented in tandem with the INRMP.

159 **1.7 REGULATORY FRAMEWORK**

160 This EA was prepared for SMR in accordance with the ARNG NEPA Handbook (2011) and in
161 compliance with all applicable federal statutes, regulations, and U.S. Army regulations, including
162 the following:

- 163 • The National Environmental Policy Act (NEPA Pub. L. 91-190, 42 U.S.C. 4321-4347).
- 164 • The SAIA, as amended by the National Defense Authorization Act of 2012, codified at 16
165 U.S.C. 670a et seq.
- 166 • The Endangered Species Act (ESA), as amended by the National Defense Authorization
167 Act of 2004, codified at 16 U.S.C. 1533(b)(2) and 1533 (a)(3)(b).
- 168 • AR 200-1, *Environmental Protection and Enhancement*, 13 December 2007.
- 169 • Department of Defense Instruction (DoDI) 4715.03, Natural Resources Conservation
170 Program, 18 March 2011.
- 171 • Department of Defense Memorandum, *Updated Guidance for Implementation of the*
172 *Sikes Act Improvement Act*, 10 October 2002.

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

- 173 • Department of Defense Memorandum, *Updated Guidance for Implementation of the*
174 *Sikes Act Improvement Act – Supplemental Guidance Concerning INRMP Reviews*, 1
175 November 2004.
- 176 • Department of the Army (DoA) Memorandum, *Guidance for Implementation of the Sikes*
177 *Act Improvement Act*, 25 May 2006.
- 178 • Army National Guard Memorandum, *Guidance for the Creation, Implementation,*
179 *Review, and Revision and Update of Integrated Natural Resource Management Plans*,⁹
180 April 2012.

181 The Code of Virginia §10.1-1188 requires that state agencies such as the VDMA prepare and
182 submit an Environmental Impact Report (EIR) to the Virginia DEQ for each major state project.
183 DEQ, in turn, is responsible for carrying out Virginia's EIR procedures for distribution and comment
184 by state agencies. DEQ's procedures allow the EA submittal developed in accordance with
185 NEPA in fulfillment of the EIR requirement (DEQ 2004). A similar NEPA requirement, per Executive
186 Order (EO) 12372, Intergovernmental Review of Federal programs, also requires submittal of the
187 draft EA to the DEQ. The provisions of Executive Order 12372 of 14 July 1982 appear at 47 FR
188 30959, 3 C.F.R., 1982 Comp., p. 197, unless otherwise noted. The same office of DEQ is
189 designated to receive both EIRs and EA documents. The draft EA document has been submitted
190 once to DEQ to comply with both the Code of Virginia §10.1-1188 and EO 12372. All applicable
191 CZMA laws can be found in Table 2.

192 **Table 2. Coastal Zone Management Act Programs**

Resource	Agency	Applicable Law
Fisheries	1. VDGIF 2. VMRC	§29.1-100 thru 29.1-570 of the Code of Virginia §28.2-200 thru 28.2-713 of the Code of Virginia
Subaqueous lands	VMRC	§28.2-1200 <i>et seq.</i> Code of Virginia
Tidal Wetlands	1. VMRC 2. City of Virginia Beach Wetlands Board	§28.2-1300 <i>et seq.</i> Code of Virginia Sections 1400 thru 1418 of the Zoning Ordinance City of Virginia Beach
Coastal Primary Sand Dunes and Beaches	1. VMRC 2. City of Virginia Beach Wetlands Board	§28.2-1400 <i>et seq.</i> Code of Virginia Sections 1600 thru 1419 of the Zoning Ordinance City of Virginia Beach
Non-tidal Wetlands	DEQ	§62.1-44.15:20 <i>et seq.</i> Code of Virginia

193 The CZMA (16 U.S.C. § 1451, *et seq.*, as amended) requires federal consistency for activities
194 which have reasonably foreseeable effects on any coastal use (land or water) or natural
195 resource of the coastal zone be consistent with the enforceable policies of a state's federally
196 approved coastal management program.

197 **2.0 DESCRIPTION OF THE PREFERRED ACTION ALTERNATIVE AND**
198 **ALTERNATIVES**

199 **2.1 INTRODUCTION**

200 The Preferred Action Alternative is the implementation of the SMR INRMP for FY 2019-2023. The
201 SMR INRMP is a document designed to integrate all aspects of natural resource management to
202 accomplish military training and national environmental objectives. The basis of the SMR INRMP is
203 ecosystem management and complying with the requirements of the Sikes Act. The DoD Natural
204 Resources Conservation Program policy contained in DoDI 4715.03 (DoDI 4715.03) states that all
205 installations must incorporate ecosystem management into their natural resources management
206 strategy; the SMR INRMP is the vehicle to implement this policy. In compliance with the
207 Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.); this EA is attached as an appendix to
208 the INRMP and references appropriate sections of the INRMP where additional detailed
209 information may be found. A full description of the INRMP background information and
210 implementation can be found in Sections 1.0, 2.0 and 6.0 of the INRMP.

211 **2.2 ALTERNATIVES DEVELOPMENT**

212 NEPA requires consideration of reasonable alternatives to the Preferred Action Alternative. Only
213 alternatives that would reasonably meet the defined need for the Preferred Action Alternative
214 were considered for detailed analysis in this EA. Because development of an INRMP is mandated
215 under the Sikes Act, no other project alternatives have been developed or evaluated.
216 Preparation and full implementation of the INRMP is a DoD requirement. Partial implementation
217 of the INRMP is not feasible or legally sufficient. The No Action Alternative and the Preferred
218 Action Alternative are the only alternatives carried throughout this EA.

219 **2.3 EVALUATED ALTERNATIVES**

220 **PREFERRED ACTION ALTERNATIVE**

221 The Preferred Action Alternative is to approve and implement the proposed INRMP at SMR,
222 which collectively includes numerous tasks for Fiscal Year (FY) 2019 through FY 2023. These tasks
223 include information on 13 Management Goals and their Objectives and are detailed in the SMR
224 Natural Resources Task List which is located in Appendix B of the INRMP and in INRMP Section 5.

225 This is a new INRMP and is consistent with the military use of the SMR and the requirements of the
226 Sikes Act. The INRMP provides a strategy of planned projects and programs to integrate the
227 entirety of the SMR's natural resource program with ongoing mission activities, allows for
228 identification of potential conflicts between the SMR's mission and natural resources, and
229 identifies compliance actions necessary to maintain the availability of mission-essential
230 properties and acreage. In accordance with the SAIA (16 U.S.C. §670a et seq), INRMPs are
231 updated annually and revised every five years. Tasks comprising the Preferred Action Alternative

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

232 fall under 13 program areas on SMR. The goals and objectives of each program are summarized
233 in Table 3 below:

234 **Table 3. INRMP Program Area Goals and Objectives**

	GOALS	OBJECTIVES	INRMP SECTION
1.	FISH AND WILDLIFE MANAGEMENT		5.2
	Manage game and non-game species and their habitats to maintain biodiversity.	Maintain an inventory of all species that exist on the installation, wildlife habitat management, biodiversity, and recreational fishing.	
2.	RARE, THREATENED AND ENDANGERED SPECIES AND HABITAT MANAGEMENT		5.3
	Promote the potential utilization of site resources by threatened or endangered species.	To maintain habitat for potential utilization by rare species.	
		To monitor species on a regular basis to ensure that any rare species are identified and protected.	
3.	WATER QUALITY MANAGEMENT		5.4
	Maintain and protect Lake Christine as an asset to State Military Reserve (SMR) and the surrounding community.	Protect surface waters from pollution as required under the Clean Water Act (CWA).	
		Ensure that the water quality in surface waters is maintained.	
		Enhance the potential of Lake Christine as a recreational resource for the VAARNG.	
4.	WETLAND CONSERVATION		5.5
	Protect and enhance existing wetlands.	Ensure compliance with federal and state wetland regulations.	
		Enhance wetlands through restoration activities.	
5.	POLLINATOR HABITAT		5.6
	Protect, create and maintain pollinator habitat.	Manage lands to increase pollinator habitat where possible.	
6.	FOREST MANAGEMENT		5.7
	Maintain biological diversity in forested systems.	Maintain forest areas through monitoring, surveys and the exclusion of specific uses.	
7.	INTEGRATED PEST MANAGEMENT		5.8
	Reduce pest populations through use of integrated combination of techniques.	Identify, prioritize, monitor, and control invasive and noxious species and feral animals on its installations whenever feasible.	

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

	GOALS	OBJECTIVES	INRMP SECTION
8.	OUTDOOR RECREATION		5.9
	Allow the use of State Military Reserve for natural resources-based activities in a manner that does not interfere with mission activities.	Encourage outdoor recreation for military personnel and associated persons.	
9.	COASTAL ZONE MANAGEMENT		5.10
	Consistency with the CZM Program.	Compliance with provisions and permit requirements under enforceable laws, regulations, and advisory policies.	
		Identify and implement sound natural resources strategies that provide benefits to the ecosystem	
10.	PUBLIC OUTREACH		5.11
	Increase the public's awareness of environmental programs on SMR.	Educate the public through informational publications, presentations and encouraging public participation in special events.	
11.	CLIMATE CHANGE		5.12
	Undertake adaptation and resilience planning in order to incorporate potential climate change impacts in future plans and projects.	Develop potential alternatives that may be used to address the physical impacts of climate change to both existing infrastructure and the natural environment.	
12.	ENFORCEMENT		5.13
	Enforce applicable natural resource laws and regulations which are critical to the successful implementation of ecosystem management.	Maintain compliance with all required environmental regulations.	

235 A complete Project Implementation schedule is included in SMR Natural Resources Task List is
236 located in Appendix B of the INRMP.

237 **NO ACTION ALTERNATIVE**

238 Under NEPA, the No Action Alternative must be evaluated as a baseline by which to compare
239 the Preferred Action Alternative. In this instance, the No Action Alternative is defined as a
240 continuation of existing conditions with respect to natural resources management strategies at
241 SMR. Under the No Action Alternative, VAARNG would conduct assessment of natural resources
242 impacts from operations and maintenance of these facilities in a piecemeal fashion on a
243 project-by-project basis. No overall natural resources strategy would be implemented.

244 **2.5 ALTERNATIVE COMPARISON MATRIX**

245 This section provides a summary matrix (Table 4) of the potential impacts of the No Action
246 Alternative and the Preferred Action Alternative.

247 **Table 4. Alternative Comparison Matrix**

Resource Area	No Action Alternative	Preferred Action Alternative
Land Use	Less than significant adverse impacts are anticipated due to inefficient land use and minimal habitat protection.	Long-term significant beneficial impacts are anticipated due to more efficient land use and increase in habitat protection.
Air Quality	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Noise	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Geology, Topography, and Soils	Less than significant long-term adverse impacts are anticipated from dune erosion.	No impacts to geology, topography or soils are anticipated; long-term significant beneficial impacts due to reduced dune erosion.
Water Resources	Less than significant long-term adverse impacts are anticipated from erosion and nutrient runoff.	Long-term significant beneficial impacts from riparian habitat and wetland management.
Biological Resources	Long and short-term significant adverse impacts due to the discontinuation of monitoring and protective measures.	Long-term significant beneficial impacts to biological resources due to increased monitoring that will influence future management; short-term, less-than-significant adverse impacts would be expected as a result of pest and invasive species management activities, however implementation of the NGB Integrated Pest Management Plan (IPMP) will ensure no adverse impacts occur.
Cultural Resources	No significant direct/indirect effects.	VAARNG performed tribal consultation because implementation of the INRMP may have the potential to significantly affect protected tribal resources, tribal rights, or Indian land. Responses indicated that implementing the INRMP would not adversely impact culturally significant tribal resources; no mitigation required.
Socioeconomics	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

Resource Area	No Action Alternative	Preferred Action Alternative
Environmental Justice	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Infrastructure	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Hazardous and Toxic Materials/Wastes	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.

249 **3.0 AFFECTED ENVIRONMENT**

250 This section summarizes the affected environment at SMR. It provides information to serve as a
251 baseline from which to identify and evaluate effects resulting from implementation of the
252 Preferred Action Alternative. Land use, soils, water resources, biological resources and cultural
253 resources are discussed in Section 4.0 of the INRMP. This EA identifies the appropriate section of
254 the INRMP where more detailed information can be found on the resources discussed in detail in
255 this EA.

256 Under Section 307 of the CZMA, federal actions in coastal zones must be reviewed for
257 consistency with state environmental regulations. SMR is located entirely within the coastal zone
258 of Virginia, as established in the Commonwealth's CZMA. The enforceable regulatory programs
259 comprising CZM Program include regulations for the management of coastal lands, fisheries,
260 subaqueous lands, wetlands, coastal primary sand dunes, point and non-point source pollution,
261 shoreline sanitation, and air pollution.

262 **3.1 LOCATION DESCRIPTION**

263 SMR, a state-owned facility, is located on General Booth Boulevard in the City of Virginia Beach,
264 Virginia. The approximately 330-acre installation is bordered by the Atlantic Ocean to the east,
265 General Booth Boulevard to the west, Bird Neck Road to the south, and the Croatan residential
266 neighborhoods to the north. The SMR property includes approximately 1,203 linear feet of beach
267 front which extends to the mean low waterline. SMR is located on the U.S. Geological Survey
268 (USGS) 7.5 Minute Quadrangle Map for Virginia Beach, Virginia (1986 revision), directly south of
269 Lake Rudee and Lake Wesley (Figure 1 and Figure 2). For more information concerning the
270 geographic setting and location of SMR, see Section 2.0 of the SMR INRMP. Virginia Beach has a
271 moderate climate throughout the year with an extended spring and fall. Daily temperatures
272 range from an average of 40 degrees Fahrenheit (5 degrees Celsius) in January to
273 approximately 80 degrees Fahrenheit (26 degrees Celsius) in July and August.

274 **3.2 LAND USE**

275 The landscape of SMR consists of 332 acres which contains of 150 acres of lawn and developed
276 areas; 80 acres of forested areas; 20.9 acres of emergent wetlands and open water; and 8.8
277 acres of beaches and dune along the shoreline. In all, there are 41 acres of wetlands and
278 waters on SMR, including Lake Christine.

279 SMR provides a training and support area for the VAARNG, VAANG, out-of-state National Guard
280 units, DoD units, and non-DoD customers (i.e. public safety, Reserve Officers' Training Corps
281 (ROTC)) and other community partners. Firing range training at SMR is only performed between
282 Labor Day and Memorial Day due to its proximity to Virginia Beach, a popular summer tourist
283 location. All other training occurs 365 days a year. The facility is available to other military units
284 as well as community service and professional groups when not in active use by the National

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

285 Guard is available for community special events. The post supports the federal and state military
286 mission by providing opportunities for meeting training requirements of assigned missions. SMR
287 also serves as an intermediate staging base. Live fire crew-served weapons, such as tanks,
288 artillery and mortars, and maneuver training are not performed at SMR. For more information
289 concerning the land use at SMR and the surrounding areas, see Section 2 of the SMR INRMP.

290 **3.3 ELIMINATED RESOURCE AREAS**

291 Per 40 C.F.R. 1501.7(a)(3), CEQ recommends identifying and eliminating detailed study of the
292 issues which are not significant, or which have been covered by prior environmental review,
293 narrowing the discussion of these issues to a brief presentation of why they will not have a
294 significant effect on the human environment or providing reference to their coverage
295 elsewhere. Thus, INRMP implementation and the No Action Alternative will have no long-term
296 direct or indirect impacts with regard to the following areas and they have been eliminated
297 from further discussion:

298 **3.3.1 Noise**

299 Military training activities at the SMR generate noise. The natural resources management
300 objectives and actions defined in the INRMP have no potential to affect existing noise levels.
301 Noise levels from natural resource management activities would occur during normal working
302 hours and be unnoticeable to the surrounding landowners. The Preferred Action Alternative
303 would have no significant effect on the noise environment therefore noise issues are not
304 considered further in this EA.

305 **3.3.2 Socioeconomics and Environmental Justice**

306 The Preferred Action Alternative has no potential to affect socioeconomic conditions.
307 Implementation of the goals and objectives of the INRMP will not involve gain or loss of
308 personnel and, therefore, there is no potential to affect local or regional demography, housing,
309 or public services. The implementation of the INRMP would take place on SMR and would not
310 affect minority or low-income populations. The Preferred Action Alternative would therefore
311 have no significant effect on these issues, and they are not considered further in this EA.

312 **3.3.3 Infrastructure**

313 The Preferred Action Alternative would not affect the existing utilities serving SMR or increase
314 demands on these utilities. No new infrastructure is proposed within the INRMP. The Preferred
315 Action Alternative would have no significant effect on infrastructure, therefore, these issues are
316 not considered further in this EA.

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE



317
318 **Figure 1. Location of State Military Reserve.**

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE



320
321

Figure 2. State Military Reserve Site Map.

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

322 **3.3.4 Hazardous Materials and Hazardous Waste**

323 The Preferred Action Alternative would not affect the storage, use, or disposal of hazardous
324 materials and hazardous wastes at SMR. Therefore, these are not considered further in this EA.

325 **3.3.5 Visual**

326 The Preferred Action Alternative will not have any significant effects on visual resources. No
327 construction of infrastructure or buildings is proposed, and there are no forest management
328 activities, such as timber harvest that might change the landscape. Therefore, visual resources
329 are not considered further in this EA.

330 Table 5 lists the resources which are not considered in detail in the EA because the Preferred
331 Action Alternative has no potential to measurably affect them:

332 **Table 5. SMR Resources with No Impacts.**

Technical Resource Area	No Action Alternative	Preferred Action Alternative
Air Quality	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Noise	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Socioeconomics	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Environmental Justice	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Infrastructure	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Hazardous and Toxic Materials/Wastes	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Visual	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.

333 **3.4 GEOLOGY, TOPOGRAPHY, AND SOILS**

334 **3.4.1 Geology**

335 SMR is located in the Atlantic Coastal Plain Physiographic Province. The Coastal Plain is
336 underlain by layers of Cretaceous (65 to 146 million years ago) and younger clay, sand, and
337 gravel that dip gently eastward (Frye 1986). Cretaceous sediments were deposited by rivers
338 carrying sediment from the eroding Appalachian Mountains to the west. A layer of tertiary age
339 (65 to 1.6 million years ago) marine sands approximately 1,000 feet thick overlays the older
340 strata. The youngest deposits on the Coastal Plain are sand, silt, and mud presently being
341 deposited in bays and along beaches.

342 **3.4.2 Topography**

343 The topography on SMR is characterized by relatively level ground that fluctuates around the 10-
344 foot contour. The most prominent topographic features are the sand ridges and dunes that

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

345 parallel the Atlantic Ocean for the entire 1,200 linear feet of beachfront on the facility. The
346 dominant sand ridge is approximately 20 feet above mean sea level (msl) and extends to the
347 south beyond the facility along the Virginia and North Carolina coast. The main post is
348 characterized by relatively flat terrain that slopes gently from the southwest corner to the
349 northeast corner. Elevations in this area range from approximately 15 feet msl to mean tide (0
350 feet msl) in the tidal wetlands near General Booth Boulevard.

351 **3.4.3 Soils**

352 SMR is included in the Soil Survey of Virginia Beach, Virginia (USDA 1985). Most of the acreage
353 has a slight erosion hazard and is poorly drained (Table 6). For more information concerning the
354 soils at SMR, see Section 3.3 of the SMR INRMP.

355 **Table 6. Soil Characteristics**

Soil name	Erosion Hazard (Off-Road, Off-Trail)	Acres (approx.)	Drainage Class	Prime Farmland Designation
Acredale silt loam	Slight	62.32	Poorly drained	Prime farmland if drained
Augusta loam	Slight	41.56	Somewhat poorly drained	Prime farmland if drained
Beaches	Not rated	5.34	Excessively drained	Not prime farmland
Bojac fine sandy loam	Slight	14.14	Well drained	All areas are prime farmland
Chapanoke silt loam	Slight	34.89	Somewhat poorly drained	Prime farmland if drained
Duckston fine sand	Slight	25.66	Poorly drained	Not prime farmland
Nawney silt loam	Slight	1.4	Very poorly drained	Not prime farmland
Newhan fine sand	Moderate	8.47	Excessively drained	Not prime farmland
Rumford fine sandy loam	Moderate	4.76	Well drained	Not prime farmland
Tetotum loam	Slight	46.76	Moderately well drained	All areas are prime farmland
Udorthents, loamy and Udorthents-Urban land complex	Not rated	22.49	--	Not prime farmland
Urban land	Not rated	9.34	--	Not prime farmland
Yeopim silt loam	Slight	6.75	Moderately well drained	All areas are prime farmland

356 **3.5 WATER RESOURCES**

357 SMR is bordered on its eastern boundary by the Atlantic Ocean. Approximately 1,200 feet of the
358 eastern boundary consists of beachfront. Lake Christine, a 30+ acre shallow, freshwater lake,
359 comprises the largest water body occurring within the boundaries of the installation, with
360 approximately 26 acres of the lake lying within the facility boundaries. A 0.2-acre stormwater
361 retention pond is located near the southwest corner of the facility. Storm drainage on SMR
362 consists of a combination of natural surface drainage courses and man-made systems. A total of
363 eight inlets drain directly into Lake Christine. The water quality in Lake Christine is moderately
364 poor due to its continued use as a stormwater management BMP. A detailed wetland
365 delineation was conducted Stantec in 2017 and identified estuarine and palustrine ecological
366 systems, as well as several small stream segments, on the SMR property.

367 SMR is underlain by several aquifers of variable depth separated by semi-confining units. The
368 uppermost water table unit is the Columbia aquifer, which occurs at varying depths ranging
369 from 20 feet to 120 feet below the ground surface (BGS). Other aquifers underlying SMR include
370 the Yorktown-Eastover aquifer (approximately 140 to 400 feet BGS), the Chickahominy-Piney
371 Point aquifer (approximately 800 to 950 feet BGS), the Upper Potomac aquifer (approximately
372 1,100 to 1,200 feet BGS), the Middle Potomac aquifer (approximately 1,400 feet BGS), and the
373 lower Potomac aquifer (approximately 1,900 feet BGS). The City of Virginia Beach supplies
374 potable water to SMR (VDMA 2002).

375 SMR is located entirely within the coastal zone of Virginia, as established in the Commonwealth's
376 CZMA. Virginia's CZM Program is a network of state agencies and local governments.
377 Consistency with the CZM Program is based on compliance with provisions and permit
378 requirements under enforceable laws, regulations, and advisory policies. The enforceable
379 regulatory programs comprising CZM Program include regulations for the management of
380 coastal lands, fisheries, subaqueous lands, wetlands, coastal primary sand dunes, point and non-
381 point source pollution, shoreline sanitation, and air pollution. A determination of consistency for
382 the EA and INRMP with the CZM program was issued by DEQ on June 28, 2017 (see Section
383 1.4.3). One hundred (100) year floodplains are located along the western boundary of SMR and
384 are associated with tributaries of Owl Creek. Floodplains associated with the Atlantic Ocean
385 have been defined by FEMA as 100-year floodplains with velocity hazards (wave action) where
386 base flood elevations have been determined. See Figure 7 in the INRMP.

387 The values attributed to these water resources generally involve recreation and aesthetics,
388 surface water conveyance, and shallow groundwater recharge. For more information
389 concerning water resources at SMR, see Sections 3.4, 3.5 and 3.6 of the SMR INRMP.

390 **3.6 BIOLOGICAL RESOURCES**

391 Management of biological resources at SMR centers primarily on recording and investigating the
392 various species that exist on the installation and concentrating training activities in developed

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

393 areas of the installation. Information gathered during surveys will be used later to create
394 programs for wildlife management and habitat protection based on the findings.

395 No federal threatened, or federal endangered plant or animal species are known to occur on
396 SMR. Potential habitat exists for the northern long-eared bat (*Myotis septentrionalis*, NLEB), which
397 was listed by the USFWS on April 2, 2015, as threatened throughout its range under the ESA. There
398 also exists the potential for the threatened Atlantic green sea turtle (*Chelonia mydas mydas*),
399 endangered loggerhead sea turtle (*Caretta caretta*) and Kemp's ridley sea turtle (*Lepidochelys*
400 *kempii*) to utilize the beach and primary dune effacement for nesting areas. Table 7 lists the
401 species identified as having the potential to be located on SMR.

402 **Table 7. Threatened and Endangered Species**

Common Name	Scientific Name	Federal Status	State Status
Responsible Agency: USFWS (Federal) or VDGIF (State)			
Northern long-eared bat	<i>Myotis septentrionalis</i>	Threatened	Threatened
Little brown bat	<i>Myotis lucifugus</i>	N/A	Endangered
Tri-colored bat	<i>Perimyotis subflavus</i>	N/A	Endangered
Piping Plover	<i>Charadrius melodus</i>	Threatened	Threatened
Red Knot	<i>Calidris canutus rufa</i>	Threatened	Threatened
Roseate Tern	<i>Sterna dougallii dougallii</i>	Endangered	Endangered
Responsible Agency: NOAA-NMFS			
Hawksbill Sea Turtle	<i>Eretmochelys imbricata</i>	Endangered	Endangered
Kemp's Ridley Sea Turtle	<i>Lepidochelys kempii</i>	Endangered	Endangered
Loggerhead Sea Turtle	<i>Caretta caretta</i>	Threatened	Threatened
Green Sea Turtle	<i>Chelonia mydas</i>	Endangered	Threatened
Leatherback Sea Turtle	<i>Dermochelys coriacea</i>	Endangered	Endangered
Atlantic Sturgeon	<i>Charadrius melodus</i>	Endangered	Endangered
Shortnose Sturgeon	<i>Calidris canutus rufa</i>	Endangered	Endangered

403 With regards to state endangered and threatened species, the federally sensitive, state
404 endangered Rafinesque's eastern big-eared bat (*Corynorhinus rafinesquii*) was identified during
405 a Conservation Management Institute (CMI) mammal survey of SMR in 2015, but the 2016 bat
406 survey did not identify Rafinesque's eastern big-eared bat again. The state endangered little
407 brown bat (*Myotis lucifugus*) was acoustically detected on SMR in 2016. The eastern box turtle (

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

408 *Terrapene carolina Carolina*) was identified by CMI (2013) and is considered to have a high
409 conservation need in Virginia's Wildlife Action Plan.

410 In addition, three state rare plant species (bighead rush [*Juncus megacephalus*], sea oats
411 [*Uniola paniculata*], and live oak [*Quercus virginiana*]) have been previously confirmed within
412 the installation boundaries. For more information concerning rare, threatened, or endangered
413 species management at SMR, see Section 4.3 of the SMR INRMP.

414 The potential exists for migratory birds to use the base for nesting and wintering or for food while
415 migrating through the area. Section 4.3.6.2 and Appendix E of the INRMP identifies species of
416 migratory bird that could potentially use the habitats on SMR, including the federal threatened
417 piping plover (*Charadrius melodus*) and red knot (*Calidris canutus rufa*) and the federally
418 endangered roseate tern (*Sterna dougallii*). The bald eagle (*Haliaeetus leucocephalus*) and the
419 peregrine falcon (*Falco peregrinus*) may also visit the base. For more information concerning
420 migratory bird management at SMR, see Sections 4.3.3 and 4.3.6 of the SMR INRMP.

421 **3.7 CULTURAL RESOURCES**

422 The Cultural Resources Program focuses on areas of cultural and/or historic significance on SMR.
423 These programs will not be discussed in detail in the INRMP as there are two separate
424 documents, described below, which have been prepared to outline how these resources should
425 be treated and maintained.

426 SMR will continue to follow the "*Maintenance and Treatment Program for Historic Properties at*
427 *Camp Pendleton, Virginia Beach, and Fort Pickett, Blackstone*" (VDMA 2004), regarding cultural
428 and historic areas on the installation. The current update includes additional information from
429 two studies: (1) the completion of architectural and historic landscape survey and updating of
430 the National Register of Historic Places SMR Historic District nomination was completed in 2014,
431 and (2) a historic landscape study and plan which is in progress. The goal of the maintenance
432 and treatment program is to assist VAARNG in developing an overall management program to
433 preserve and protect its historic properties at SMR.

434 With guidance from the NGB, the VAARNG consulted with the State Historic Preservation Officer
435 (SHPO), the Advisory Council on Historic Preservation (ACHP), federal tribes, and other consulting
436 parties to prepare and implement a Programmatic Agreement (PA) dealing with military training
437 activities on VAARNG properties. The PA seeks to streamline the Section 106 review process and
438 is intended to govern routine actions at facilities including SMR that will result in findings of "No
439 Historic Properties Affected" or "No Adverse Effect" according to Section 106 of the NHPA. The
440 PA was signed by all parties in December 2016.

441 In addition, SMR will follow the current "*Integrated Cultural Resources Management Plan*
442 *(ICRMP) for Facilities of the Virginia Army National Guard*" pertaining to cultural resources
443 associated with the installation and will be updated annually according to guidance from the
444 NGB. The ICRMP is designed to support the military mission by meeting the legal compliance

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

445 requirements of federal historic preservation laws and regulations in a manner consistent with the
446 sound principles of cultural resources stewardship. The ICRMP establishes priorities for the
447 identification and evaluation of historic properties at VAARNG facilities.

448 No Traditional Cultural Properties (TCPs) or sacred sites are known to be present on SMR. There
449 are 7 federally recognized tribes within the state of Virginia and 11 tribes that claim aboriginal
450 land within the state:

451 Federally recognized tribes in Virginia:

- 452 • Pamunkey Indian Tribe
- 453 • Chickahominy Tribe – Eastern Division
- 454 • Monacan Indian Nation
- 455 • Upper Mattaponi Indian Tribe
- 456 • Chickahominy Indian Tribe
- 457 • Nansemond Indian Tribe
- 458 • Rappahannock Tribe

459 State Tribes:

- 460 • Pamunkey Indian Tribe
- 461 • Chickahominy Tribe – Eastern Division
- 462 • Monacan Indian Nation
- 463 • Upper Mattaponi Indian Tribe
- 464 • Chickahominy Indian Tribe
- 465 • Mattaponi Indian Tribe
- 466 • Nansemond Indian Tribe
- 467 • Cheroenhaka (Nottoway) Indian Tribe
- 468 • Rappahannock Tribe
- 469 • Patawomeck Indians of Virginia
- 470 • Nottoway Indian Tribe of Virginia

471 Pursuant to DoDI 4710.02 dated 14 Sept 2006 titled "*DoD Interactions with federally recognized*
472 *tribes*" for the DoD American Indian and Alaska Native Policy, the VAARNG made a
473 determination that this federal decision may have the potential to significantly affect protected
474 tribal resources, tribal rights, or Indian land. Tribal consultation was initiated via formal letter
475 submitted by the VAARNG to seven federally recognized tribes and ten state recognized tribes,
476 recorded as having cultural affiliation and interest with the land area now comprising SMR, on 2

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

477 May 2017. Six responses were received indicating that implementing the INRMP would not
478 adversely impact culturally significant tribal resources. Emails and telephone calls were made on
479 31 May 2017 and 14 Jun 2017 to all tribes from which a response to the initial letter was not
480 received. The VAARNG commander has also initiated government-to-government consultation
481 with these federally recognized tribes through the development and implementation of the
482 VAARNG ICRMP. A copy of the memorandum outlining the consultation process and responses
483 is included in Appendix C of the INRMP. Consultation procedures and the handling of
484 inadvertent discoveries are outlined in the ICRMP. Tribal consultation procedures have been
485 formalized in the Programmatic Agreement for the management of cultural resources at
486 VAARNG facilities state-wide.

487 **4.0 ENVIRONMENTAL CONSEQUENCES**

488 This chapter forms the scientific and analytical basis for comparisons of the Preferred Action
489 Alternative and the No Action Alternative considered in this document.

490 **4.1 LAND USE**

491 **4.1.1 EFFECTS OF THE PREFERRED ACTION ALTERNATIVE**

492 The Preferred Action Alternative would be expected to have long-term beneficial effect on land
493 management activities at SMR, however the overall conclusion from implementing the INRMP is
494 less-than-significant. The Preferred Action Alternative would not conflict with, divide, or
495 substantially change existing land use at the SMR. Additionally, the Preferred Action Alternative
496 would not affect land use or zoning of land adjacent to the SMR, nor would it impede the
497 training facilities. The INRMP strives to enhance and maintain biological diversity at SMR while
498 supporting the military mission. To do this, the INRMP identifies the following projects:

- 499 • Continue to focus training efforts in non-sensitive habitats, including fields, developed
500 areas, and upland forests;
- 501 • Minimize the extent of maintained areas not required for training operations;
- 502 • Maintain off-road vehicular traffic exclusions in forested areas; and
- 503 • Provide a variety of outdoor recreational activities.

504 No mitigation measures will be necessary to reduce any adverse environmental impacts to
505 below significant levels.

506 **4.1.2 EFFECTS OF THE NO ACTION ALTERNATIVE**

507 Under the No Action Alternative less than significant adverse impacts are anticipated due to
508 inefficient land use and minimal habitat protection. This alternative would not address the
509 changing natural resource management needs at SMR and therefore, is likely to result in less
510 than significant adverse effects to land use. Some of the potential effects would be increased
511 costs and time commitments to maintain the water quality in Lake Christine. A potential
512 decrease in community relations and cooperation may adversely affect future projects and
513 training.

514 **4.2 GEOLOGY, TOPOGRAPHY, AND SOILS**

515 **4.2.1 EFFECTS OF THE PREFERRED ACTION ALTERNATIVE**

516 The Preferred Action Alternative is not anticipated to have any impacts to geology, topography
517 or soils and would have long-term significant beneficial impacts due to reduced dune erosion.
518 The INRMP identifies the following projects which may have beneficial impacts by reducing soil
519 erosion:

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

- 520 • Re-establish the natural riparian buffer along the edges of Lake Christine to increase water
521 quality and species habitat area while also decreasing pest species and allowing for the
522 military mission of the installation to continue.

523 No mitigation measures will be necessary to reduce any adverse environmental impacts to below
524 significant levels.

525 **4.2.2 EFFECTS OF THE NO ACTION ALTERNATIVE**

526 Implementation of the No Action Alternative would result in less than significant long-term
527 adverse impacts are anticipated from dune erosion. not alter the current management
528 practices and therefore minor adverse impacts are anticipated to the dunes and soils along the
529 edge of Lake Christine.

530 **4.3 WATER RESOURCES**

531 **4.3.1 EFFECTS OF THE PREFERRED ACTION ALTERNATIVE**

532 The Preferred Action Alternative would have a significant beneficial effect on the water
533 resources present at SMR. No impacts to the floodplain or groundwater are anticipated. The
534 INRMP includes management strategies such as:

- 535 • Monitoring jurisdictional waters of the United States, including wetlands, on an annual basis
536 to determine the extent of unauthorized activities, if any, including the discharge of dredge
537 or fill material and/or training impacts.
- 538 • Seasonal water quality monitoring using established sampling techniques and equipment for
539 macro nutrients, dissolved oxygen, temperature, stratification, bacteria and sedimentation.
- 540 • Minimizing the use of pesticides near surface water features and the implementation of
541 integrated pest management strategies where practicable.
- 542 • Re-establishment of the natural riparian buffer along the edges of Lake Christine to increase
543 water quality and species habitat area while also decreasing pest species and allowing for
544 the military mission of the installation to continue.
- 545 • Monitoring invasive aquatic weeds and algae April through October and using pesticides if
546 needed to prevent further encroachment of these species throughout Lake Christine.

547 No mitigation measures will be necessary to reduce any adverse environmental impacts to
548 below significant levels.

549 **4.3.2 EFFECTS OF THE NO ACTION ALTERNATIVE**

550 On-base activities, such as new construction, have the capacity to promote sediment and
551 nutrient input into water bodies. The water quality in Lake Christine would continue to degrade
552 under the no action alternative. Implementation of the No Action Alternative could result in
553 minor adverse impacts to the other existing water resources on SMR or in adjacent areas.

554 **4.4 BIOLOGICAL RESOURCES**

555 **4.4.1 EFFECTS OF THE PREFERRED ACTION ALTERNATIVE**

556 The Preferred Action Alternative would have long-term beneficial impacts to biological
557 resources due to increased monitoring that will influence future management by promoting the
558 sustainment of a healthy ecosystem. The following programs are proposed:

- 559 • Continue to focus training efforts in non-sensitive habitats, including fields, developed
560 areas, and upland forests.
- 561 • Minimize the extent of maintained areas not required for training operations. Where
562 practicable, include a reduction in the amount of area currently mowed along the forest
563 perimeter in all forest management units. Areas removed from the regular maintenance
564 schedule should be allowed to revegetate naturally.
- 565 • Undertake a monitoring program established at fixed-point monitoring stations stratified
566 within the existing wildlife habitat zones on the base. The goal of the program will be to
567 document wildlife species currently utilizing the base.
- 568 • Conduct seasonal monitoring of the beachfront and dune system for stranded marine
569 mammals. Coordinate efforts with USFWS to determine practicable alternatives for nest
570 relocation (to Back Bay National Wildlife Refuge, for example) if applicable.
- 571 • Conduct fish surveys to determine the effect of allowable fishing effort on this minor
572 recreational fishery. Consultation with USFWS and VDGIF is encouraged to maintain
573 consistency with federal and state management objectives.
- 574 • Inventory and monitor migratory bird species and populations on the installation with a
575 focus on birds of conservation concern.
- 576 • Manage the conservation of migratory birds. Implement conservation measures, as
577 feasible, to ensure management of military lands is carried out in a manner that benefits
578 migratory birds and so impacts to migratory birds are minimal.

579 With regards to the protection of potential threatened and endangered species, the following
580 programs are proposed:

- 581 • Prohibit foot and vehicular traffic of any kind on sand dunes throughout the year.
- 582 • Prohibit vehicular access to the beachfront from dusk until dawn during the months of
583 May through August to maintain potential breeding habitat for sea turtles.
- 584 • In conjunction with Naval Air Station Oceana - Dam Neck Annex (NASO-DNA) conduct
585 daily monitoring of the beachfront and dune system for turtle nests and stranded turtles
586 during the months of May through August.
- 587 • Conduct lighting inspections to control the negative effects that lighting can have on
588 sea turtles.

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

- 589 • Conduct planning level surveys (PLS) every 5 years on the installation for threatened,
590 endangered, or state rare species.

591 Implementation of the NGB Integrated Pest Management Plan (IPMP) will ensure that there are
592 no potentially significant adverse impacts for the Preferred Action Alternative, as described in
593 Section 5.8 of the INRMP.

594 **4.4.2 EFFECTS OF THE NO ACTION ALTERNATIVE**

595 Implementation of the No Action Alternative could adversely impact existing biological
596 resources on SMR or in adjacent areas due to the discontinuation of monitoring and protective
597 measures. Failure to manage species and habitats at SMR may result in the degradation of such
598 habitats and a decrease in biodiversity at the installation.

599 Failure to implement an invasive pest management plan would lead to an increase in the
600 presence of invasive species at the installation therefore leading to a decrease in biological
601 diversity. Failure to manage biological resources at SMR may result in the disturbance of certain
602 habitats (e.g., for loggerhead sea turtle breeding habitat and/or state rare plant species) and
603 the potential extirpation or exclusion of these species from the site. Additionally, recreational
604 beach activity may damage the dunes and disturb potentially nesting turtles without proper
605 management.

606 **4.5 CULTURAL RESOURCES**

607 **4.5.1 EFFECTS OF THE PREFERRED ACTION ALTERNATIVE**

608 The Preferred Action Alternative will have no effect on cultural resources on SMR. As the entire
609 camp is a historic district, the SMR Historic District (DHR resource no. 134-0413), listed in the
610 National Register of Historic Places (NRHP) and the Virginia Landmarks Register, the "*Integrated*
611 *Cultural Resources Management Plan (ICRMP) for Facilities of the Virginia Army National Guard,*
612 *Fiscal Years 2014-2018,*" will be followed and all requirements for consultation under Section 106
613 of the NHPA will be met if necessary. Altering vegetation, such as increasing the riparian buffer
614 on Lake Christine, has the potential to adversely impact the cultural landscape through a
615 modification of the historical viewshed. The Virginia DHR will be consulted on all projects that
616 may impact cultural resources on SMR prior to the start of the project.

617 Pursuant to DoDI 4710.02 dated 14 Sept 2006 titled "*DoD Interactions with federally recognized*
618 *tribes*" for the DoD American Indian and Alaska Native Policy, the VAARNG made a
619 determination that this federal decision may have the potential to significantly affect protected
620 tribal resources, tribal rights, or Indian land. Tribal consultation was initiated via formal letter
621 submitted by the VAARNG to seven federally recognized tribes and ten state recognized tribes,
622 recorded as having cultural affiliation and interest with the land area now comprising SMR, on 2
623 May 2017. Please see Section 3.7 for additional information.

624 No mitigation measures will be necessary to reduce any adverse environmental impacts to
625 below significant levels.

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

626 **4.5.2 EFFECTS OF THE NO ACTION ALTERNATIVE**

627 No impacts are anticipated, as the existing conditions would remain, and the cultural resources
628 are currently managed by the ICRMP.

629 **4.6 CUMULATIVE EFFECTS**

630 Cumulative effects as defined in 40 C.F.R. §1508.7 are those which produce an “impact on the
631 environment which results from the incremental impact of the action when added to other past,
632 present, and reasonably foreseeable future actions regardless of what agency (federal or
633 nonfederal) or person undertakes such other actions”. Based upon the findings of this EA,
634 implementation of the Preferred Action Alternative will not result in cumulative environmental or
635 socio-economic impacts.

636 Long-term significant beneficial impacts are anticipated to land use, soils, water resources and
637 biological resources due to the implementation of tasks listed in Appendix B of the INRMP. INRMP
638 implementation and the No Action Alternative will have no long-term direct or indirect impacts
639 with regard to air quality, noise, socioeconomics, environmental justice, infrastructure, hazardous
640 and toxic materials/wastes as well as visual effects.

641 The master plan for the base entitled the “SMR Vision Plan” (2012) contains six goals for future
642 planning on SMR. The overall planning vision is that:

643 *“Camp Pendleton supports training of Virginia National Guard soldiers and Virginia*
644 *National Guard regional operations in consolidated campuses of enduring, resource*
645 *efficient facilities that are consistent with the Camp Pendleton character.”*

646 With regards to future impacts, the plan states that VAARNG evaluated natural and man-made
647 environmental conditions with a particular focus on those elements that affect operation or
648 development of buildings, roadways, utility systems, training ranges, and other facilities. These
649 factors were combined to analyze preferable development zones. The areas most likely to
650 contain the species of significance are included within the natural resources and recreation
651 area, where minimal impacts are proposed. One of the goals of the Vision Plan is to achieve the
652 efficient use of resources, including natural resources. The plan calls for existing natural resources
653 to be preserved. New development is to minimize negative environmental impacts and to
654 preserve existing natural buffers. Implementation of the SMR INRMP will support the objectives
655 and implementation of the Vision Plan, and there should be long-term significant beneficial
656 impacts associated with the implementation of both plans.

657 SMR is surrounded on three sides by the City of Virginia Beach and by the Atlantic Ocean on the
658 fourth. The City's comprehensive plan, entitled “*It's Our Future: A Choice City*” and adopted 17
659 May 2016, supports the local military installations by reducing encroachment by incompatible
660 land uses. All development applications within the area of interest around military installations
661 are forwarded to the Community Planning Liaison Officers (CPLOs) for comment. Through this
662 process any potential cumulative effects from development on the outskirts of the base will be

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

663 identified with enough advance notice to allow any modifications to the INRMP during the
664 annual review if necessary.

665 The goals and purposes of the SMR INRMP are to protect and enhance the environment at an
666 ecosystem and landscape level. They also involve partnerships and close consultation with
667 federal, state, and local groups such as the Military Economic Development Advisory
668 Committee (MEDAC), therefore reducing the possibility for cumulative effects arising that have
669 not already been addressed through the planning document. Any cumulative impacts that may
670 arise in the future will be considered during the INRMP annual review or 5-year revision.

671 **4.7 MITIGATION MEASURES**

672 The overall impacts to biological resources of the Preferred Action Alternative are beneficial.
673 The INRMP is by design a management strategy meant to mitigate adverse environmental
674 impacts of military training and improve overall ecosystem sustainability. The only mitigation
675 measure necessary to reduce potentially significant adverse impacts to less than significant
676 levels for the Preferred Action Alternative is the implementation of the IPMP, as described in
677 Section 5.8 of the INRMP.

678 **5.0 COMPARISON OF ALTERNATIVES AND CONCLUSIONS**

679 **5.1 COMPARISON OF THE ENVIRONMENTAL CONSEQUENCES OF THE**
680 **ALTERNATIVES**

681 A comparison of the environmental cultural, and socioeconomic effects of the Preferred Action
682 Alternative to that of the No Action Alternative is presented in Table 8.

683 **Table 8. Alternative Comparison Matrix**

Resource Area	No Action Alternative	Preferred Action Alternative
Land Use	Less than significant adverse impacts are anticipated due to inefficient land use and minimal habitat protection.	Long-term significant beneficial impacts are anticipated due to more efficient land use and increase in habitat protection.
Air Quality	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Noise	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Geology, Topography, and Soils	Less than significant long-term adverse impacts are anticipated from dune erosion.	No impacts to geology, topography or soils are anticipated; long-term significant beneficial impacts due to reduced dune erosion.
Water Resources	Less than significant long-term adverse impacts are anticipated from erosion and nutrient runoff.	Long-term significant beneficial impacts from riparian habitat and wetland management.
Biological Resources	Long and short-term significant adverse impacts due to the discontinuation of monitoring and protective measures.	Long-term significant beneficial impacts to biological resources due to increased monitoring that will influence future management; short-term, less-than-significant adverse impacts would be expected as a result of pest and invasive species management activities, however implementation of the NGB Integrated Pest Management Plan (IPMP) will ensure no adverse impacts occur.
Cultural Resources	No significant direct/indirect effects.	VAARNG performed tribal consultation because implementation of the INRMP may have the potential to significantly affect protected tribal resources, tribal rights, or Indian land. Responses indicated that implementing the INRMP would not adversely impact culturally significant tribal resources; no mitigation required.

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

Resource Area	No Action Alternative	Preferred Action Alternative
Socioeconomics	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Environmental Justice	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Infrastructure	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.
Hazardous and Toxic Materials/Wastes	No significant direct/indirect effects.	No significant direct/indirect effects; no mitigation required.

684 **5.2 CONCLUSIONS**

685 Based upon the analyses contained in the EA, VAARNG has determined that the known and
686 potential impacts of the Preferred Action Alternative on the physical, cultural, and natural
687 environment would be of a beneficial nature. Implementation of the SMR INRMP would result in
688 efficient and environmentally sound management of SMR training land and facilities. The INRMP
689 establishes responsibilities, standard operating procedures, and long-range goals for managing
690 natural resources at SMR that are in compliance with all applicable federal laws, Army
691 regulations, and NGB guidelines. All natural and human resources under VAARNG control will
692 receive greater consideration and protection than previously afforded. The INRMP has been
693 prepared with the cooperation of the USFWS, NOAA-NMFS and VDGIF. Implementation of the
694 SMR INRMP will not result in significant environmental effects and no mitigation measures will be
695 necessary to reduce any adverse environmental impacts to below significant levels.

696 As a result of the analysis conducted in this EA, it is recommended that the SMR INRMP be
697 implemented as written, and that a "Finding of No Significant Impact" statement be issued for
698 the Preferred Action Alternative.

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

6.0 REFERENCES

- 32 C.F.R. 651, Environmental Analysis of Army Actions, Final Rule. 29 March 2002.
- 40 C.F.R. 1501-1508, Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA. 2005.
- 40 C.F.R. 1501.7, NEPA and Agency Planning: Scoping. 2005.
- 40 C.F.R. 1508.7, Terminology, and Index: Cumulative Impact. 2005.
- Army National Guard Memorandum, Guidance for the Creation, Implementation, Review, and Revision and Update of Integrated Natural Resource Management Plans. 9 April 2012.
- Army National Guard NEPA Handbook. 1 October 2011. Volume II.
- Army Regulation (AR) 200-1. 13 December 2007. Environmental Protection and Enhancement.
- Coastal Zone Management Act (CZMA), 16 U.S.C. § 1451, et seq., as amended. 1972.
- Department of Defense Instruction (DoDI) 4710.02. 14 September 2006. DoD Interactions with federally recognized tribes.
- Department of Defense Instruction (DoDI) 4715.03, Natural Resources Conservation Program, 18 March 2011.
- Department of Defense Memorandum (DoDM), Updated Guidance for Implementation of the Sikes Act Improvement Act, 10 October 2002.
- Department of Defense Memorandum (DoDM), Updated Guidance for Implementation of the Sikes Act Improvement Act – Additional Guidance Concerning INRMP Reviews, 1 November 2004.
- Emrick, Verl, Matthew Fields, Michael St. Germain, and Eric Wolf. 2016. Bat Survey for the State Military Reservation Camp Pendleton, Virginia (2016). Conservation Management Institute and Department of Fish and Wildlife Conservation, College of Natural Resources and Environment, Virginia Polytechnic Institute and State University, Blacksburg. VTCMI-Technical Report 04-2016. 25 pp.
- Endangered Species Act (ESA), as amended by the National Defense Authorization Act of 2004, 16 U.S.C. 1533(b)(2) and 1533 (a)(3)(b).
- Environmental Protection Agency (EPA). 2013, updated 2018. Ozone Advance Action Plan Hampton Roads Area. Accessed: https://www.epa.gov/sites/production/files/2018-05/documents/2018update.hampton_rds_report.pdf
- Executive Order 13175 - Consultation and Coordination With Indian Tribal Governments. 2000.

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN – STATE MILITARY RESERVE

Executive Order 11988 - Floodplain Management. 2015.

Executive Order 13690 - Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input. 2015.

Federal Emergency Management Agency; Flood Map Service Center. <https://msc.fema.gov/portal/home>. Accessed March 4, 2019.

Frye, K. 1986. Roadside Geology of Virginia. Mountain Press, Missoula, Montana. 278 pp.

Integrated Cultural Resources Management Plan (ICRMP) for Facilities of the Virginia Army National Guard, Fiscal Years 2014-2018. 2014. Virginia Department of Military Affairs (VDMA). Prepared for VDMA by EEE Consulting, Inc.

National Environmental Policy Act (NEPA) as amended, 42 U.S.C. § 4321 *et seq.* 1969.

Sikes Act Improvement Act of 1997, 16 U.S.C. § 670a *et seq.* 2015.

Spill Prevention, Control, and Countermeasure Plan (SPCC) for SMR Camp Pendleton. August 2010. EEE Consulting, Inc.

St. Germain, M.J. and E.D. Wolf. 2015. Bat Acoustic Survey for State Military Reservation – Camp Pendleton, Virginia Beach, Virginia. Prepared by Conservation Management Institute.

Stantec Consulting Services, Inc. 2018. Camp Pendleton SMR Updated Wetland Delineation. Prepared for Commonwealth of Virginia, Department of Military Affairs.

U.S. Department of Agriculture (USDA). 1985. Soil Survey of City of Virginia Beach, Virginia. Prepared in cooperation with Virginia Polytechnic Institute and State University.

Virginia Army National Guard (VAARNG). 2018. Integrated Pest Management Plan: Field Manual. January 2018.

Virginia Department of Environmental Quality, Office of Environmental Impact Review. October 2018. Environmental Impact Review of Major State Facilities – Procedures Manual.

Virginia Department of Military Affairs (VDMA). August 2014. Integrated Cultural Resources Management Plan Revision For Facilities Of The Virginia Army National Guard Fiscal Years 2014-2018.

Virginia Department of Military Affairs (VDMA). 2004. Maintenance and Treatment Plan for Historic Properties at the State Military Reservation, Virginia Beach, and Fort Pickett, Blackstone. Report prepared by Parsons, Inc.

Virginia Department of Military Affairs (VDMA). 2000. Real Property Development Plan, State Military Reservation – Virginia Beach, Virginia Army National Guard. Prepared for the

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

Army National Guard and the U.S. Army Corps of Engineers by Nakata Planning Group, LLC, Colorado Springs, Colorado.

Virginia Department of Military Affairs (VDMA). 2012. Camp Pendleton Vision Plan. Prepared by the Louis Berger Group, Inc.

Wolf, Eric D., Matthew Fields, and Rebecca Schneider. 2013. Camp Pendleton All Taxa Survey. Conservation Management Institute at Virginia Tech.

7.0 GLOSSARY OF TERMS

Clean Air Act (CAA) (42U.S.C. §§7401-7671g): The comprehensive federal law that regulates air emissions from area, stationary, and mobile sources. This law authorizes the U.S. Environmental Protection Agency to establish National Ambient Air Quality Standards (NAAQS) to protect public health and the environment.

Clean Water Act (CWA) (33 U.S.C. 1251 et seq.): Amendment to the Federal Water Pollution Control Act of 1972, which set the basic structure for regulating discharges of pollutants to waters of the United States.

Critical Habitat: (Endangered Species Act, Section 4), The specific areas within the geographical area occupied by a federally endangered or threatened species, when it is listed, which contain the physical or biological features 1) essential to the conservation of the species and 2) which may require special management considerations or protection. Critical habitat may also include specific areas outside the geographical area occupied by the species when it is listed if those areas are essential for the conservation of the species [(ESA Section 3(5A))]. Critical habitat is described and designated by the lead Federal regulatory agency making status determinations for a species. Designations usually accompany final listing decisions but may be delayed to allow comprehensive review of the necessary technical data.

Cultural Resources: Historic properties as defined by the NHPA, cultural items as defined by NAGPRA, archeological resources as defined by ARPA, sacred sites as defined by EO 13007 to which access is afforded under AIRFA, and collections and associated records defined in 36 C.F.R. 79.

Environmental Assessment: Environmental Assessment. This is a document mandated by the National Environmental Policy Act (NEPA), defined as a concise public document for which a Federal agency is responsible that serves to: 1) briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact, 2) aid an agency's compliance with NEPA when no environmental impact statement is necessary, and 3) facilitate preparation of a statement when one is necessary. Environmental Assessments include brief discussions of the need for the proposal, of alternatives as required by section 102(2)(E) of NEPA, of the environmental impacts of the Preferred Action Alternative and alternatives, and a listing of agencies and persons consulted.

Endangered Species: "...any species [including subspecies or qualifying distinct population segment] that is in danger of extinction throughout all or a significant portion of its range." [ESA Section 3(6)]. The lead federal agency for the listing of a species as endangered (e.g. the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service) is responsible for reviewing the status of the species on a five-year basis.

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN – STATE MILITARY RESERVE

Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.): An act to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions.

Finding of No Significant Impact (FONSI): A document prepared by a federal agency showing why a Preferred Action Alternative would not have a significant impact on the environment and thus would not require preparation of an Environmental Impact Statement. A FONSI is based on the results of an environmental assessment.

Hydric Soils: Soils that are saturated, flooded, or ponded for long enough during the growing season to develop oxygen-deficient conditions in their upper part.

Hydrology: The science dealing with the properties, distribution and circulation of water.

Indigenous Wildlife: Native to an area, not imported.

Integrated Pest Management (IPM): A comprehensive approach to pest control or prevention that considers various chemical, physical, and biological suppression techniques; the habitat of the pest; and the interrelationship between pest populations and the potential to cause economic or environmental harm.

Mitigation: Lessening the adverse effects an undertaking may cause relative to natural or cultural resources. Mitigation can include limiting the magnitude of the action; repairing, rehabilitating, or restoring the affected resource; avoiding the effect altogether; reducing or eliminating the effect over time by preservation and maintenance operations during the life of the action; and/or compensating for the effect by providing substitute resources or environments.

Native Americans: American Indians, Eskimos, Aleuts, and Native Hawaiians.

Natural Resources: All elements of nature and their environments of soil, air, and water. Those consist of two general types:

(1) Earth Resources: Nonliving resources such as minerals and soil components

(2) Biological Resources: Living resources such as plants and animals.

National Environmental Policy Act (NEPA): The Act as amended articulates the Federal law that mandates protecting the quality of the human environment. It requires Federal agencies to systematically assess the environmental impacts of their proposed activities, programs and projects including the “no action” alternative of not pursuing the Preferred Action Alternative. NEPA requires agencies to consider alternative ways of accomplishing their missions in ways which are less damaging to the environment (Pub. L. 91-190, 42 U.S.C. 4321-4347).

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN – STATE MILITARY RESERVE

National Historic Preservation Act of 1966 (16 U.S.C. §§470 et seq.): An act to establish a program for the preservation of historic properties throughout the Nation, and for other purposes, Approved October 15, 1966 (Public Law 89-665; 80 STAT.915; 16 U.S.C. 470) as amended by Public Law 91-243, Public Law 93-54, Public Law 94-422, Public Law 94-458, Public Law 96-199, Public Law 96-244, Public Law 96-515, Public Law 98-483, Public Law 99-514, Public Law 100-127, and Public Law 102-575).

National Register of Historic Places (National Register): A register of districts, sites, buildings, structures, and objects important in American history, architecture, archaeology, and culture, maintained by the Secretary of the Interior under authority of Section 2(b) of the Historic Sites Act of 1935 and Section 101(a)(1) of the National Historic Preservation Act of 1966, as amended.

Native Species: A species indigenous to an area; i.e. not introduced from another environment or area.

Physiognomy: the form and structure of natural communities.

Sikes Improvement Act of 1997 (16 U.S.C. 670a et seq.): An Act to promote effectual planning, development, maintenance and coordination of wildlife, fish, and game conservation and rehabilitation on military reservations.

Stewardship: The management of resources entrusted to one's care in a way that preserves and enhances the resources and their benefits for present and future generations.

Threatened Species: "...any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range" [Section 3(19) of the ESA]. The lead federal agency for the listing of a species as threatened, (e.g., the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service) is responsible for reviewing the status of the species on a five-year basis.

Undertaking: Any federal, federally-assisted, or federally-licensed action, activity, or program, new or continuing that may have an effect on National Register resources and thereby triggers procedural responsibilities under Section 470 et seq. of 16 U.S.C.

Wetlands: Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

8.0 LIST OF PREPARERS AND REVIEWERS

Rebecca Schneider
Conservation Management Institute
1900 Kraft Dr. Suite 250
Blacksburg, VA 24060
rmurray@vt.edu

Katie Clayton - State Employee
NEPA Compliance Specialist, VAARNG
Bldg. 316 Fort Pickett
Blackstone, VA 23824
Office: (434) 298-6226
katherine.a.clayton.nfg@mail.mil

Ken Oristaglio
Natural Resources Program Manager
VA Army National Guard, Fort Pickett
BLDG 316, Fort Pickett
Blackstone, VA 23824
kenneth.l.oristaglio@us.army.mil

Amber Forestier
Regulatory Specialist
Stantec Consulting Services Inc.
150 Riverside Parkway Suite 301
Fredericksburg VA 22406-1094
Amber.Forestier@stantec.com

Kenrick Presgraves, PWD
Senior Ecologist
Stantec Consulting Services Inc.
5209 Center Street
Williamsburg VA 23188
kenny.presgraves@stantec.com

9.0 AGENCIES AND INDIVIDUALS CONSULTED

Internal Stakeholders:

- Commander, State Military Reserve
- Natural Resources Program Manager, VA Dept. of Military Affairs - MTC Fort Pickett
- Cultural Resources Program Manager, VA Dept. of Military Affairs - VA Army National Guard
- Training Customers (from all military branches)
- 203rd RED HORSE Squadron
- The Commonwealth Challenge Program
- Readiness Centers
- Recreational Customers

Cooperative Stakeholders:

- U.S. Fish and Wildlife Service
- Virginia Department of Game and Inland Fisheries
- National Oceanic and Atmospheric Administration - National Marine Fisheries Service

External Stakeholders:

- Virginia Department of Environmental Quality
- Virginia Marine Resources Commission
- Virginia Department of Conservation and Recreation
- Croatan (residential community)
- City of Virginia Beach
- External civilian DoD and non-DoD Training Customers

Federally recognized tribes in Virginia:

- Pamunkey Indian Tribe
- Chickahominy Tribe – Eastern Division

DRAFT ENVIRONMENTAL ASSESSMENT OF THE INTEGRATED NATURAL RESOURCES
MANAGEMENT PLAN – STATE MILITARY RESERVE

- Monacan Indian Nation
- Upper Mattaponi Indian Tribe
- Chickahominy Indian Tribe
- Nansemond Indian Tribe
- Rappahannock Tribe

Federally Recognized Tribes Outside of Virginia:

- Catawba Indian Nation
- Cherokee Nation of Oklahoma
- Cayuga Nation of Indians
- Eastern Band of Cherokee Indians
- United Keetoowah Band of Cherokee Indians
- Tuscarora Nation of New York

APPENDIX A

DETERMINATION OF CONSISTENCY WITH VIRGINIA'S COASTAL RESOURCES MANAGEMENT PROGRAM

City of Virginia Beach, Virginia

INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN

Coastal Zone Management Act (CZMA) Consistency Determination

This document provides the Commonwealth of Virginia with the Virginia Army National Guard (VAARNG) Consistency Determination under CZMA section 307(c)(1) [or (2)] and 15 CFR Part 930, subpart C, for the implementation of the State Military Reserve SMR Integrated Natural Resources Management Plan (INRMP). The information in this Consistency Determination is provided pursuant to 15 CFR §930.39. This activity includes:

The Proposed Action

The Proposed Action is the implementation of the SMR INRMP for FY 2017-2021. The SMR INRMP is a document designed to integrate all aspects of natural resource management in order to accomplish military training and national environmental objectives. Furthermore, the INRMP also addresses the impact that natural resource management activities have on the cultural resources at SMR and provides management guidance. The philosophical basis of the SMR INRMP is ecosystem management. Army policy states that all installations must incorporate ecosystem management into their natural resources management strategy; the SMR INRMP is the vehicle to implement this policy.

Based upon the following information, data, and analysis, the VAARNG finds that the implementation of the SMR INRMP is consistent to the maximum extent practicable with the enforceable policies of the Virginia Coastal Zone Management Program.

The VAARNG has determined that the implementation of the SMR INRMP affects the land or water uses or natural resources of Virginia in the following manner:

Enforceable policies comprising Virginia's Coastal Zone Management Program:

- 1) Fisheries Management** – The implementation of the INRMP would have a significant positive effect as well as minor negative impacts on the water resources present at State Military Reserve. Management strategies are discussed in the SMR INRMP EA, 4.3 Water Resources.

- 2) Subaqueous Lands Management** – Implementation of the INRMP will have no foreseeable impact on subaqueous resources. The project complies with all federal and state regulations. For further illustration, Figure 3 of the INRMP depicts SMR land use per the 2012 Vision Plan.

3) Wetlands Management – Implementation of the INRMP promote the preservation of existing wetlands on SMR. Please refer to INRMP Sections 3.2 and 4.6.

4) Dunes Management – *This project* would promote dune preservation that should reduce dune erosion at State Military Reserve, resulting in a beneficial impact to the dunes at SMR. For further information, please see Section 6.11 in the INRMP.

) **Non-point Source Pollution Control** – The implementation of the INRMP would not cause non-point source pollution. The INRMP ensures adequate erosion and sedimentation controls are in place during minor land disturbance activities associated with grounds maintenance.

) **Point Source Pollution Control** – The implementation of the INRMP would not cause new discharge or point source pollution.

7) Shoreline Sanitation – Implementation of the INRMP will have no impact on shoreline sanitation.

8) Air Pollution Control – Implementation of the SMR INRMP is not expected to create significant adverse impacts to air resources. *Air pollution control is not applicable to this project.* Prescribed burning does not take place on this installation.

) **Coastal Lands Management** – The INRMP will have no impact on coastal lands management.

) **Chesapeake Bay Preservation Area Designation and Management Regulations (Virginia Administrative Code 4 VAC 50-90-10 et seq.)** – The INRMP does not include any development activities on property designated a Resource Protection Area as defined by Chesapeake Bay Preservation Area Designation and Management Regulations (*Virginia Administrative Code 9 VAC 25-830-10 et seq.*).

Pursuant to 15 CFR Section 930.41, the Virginia Coastal Zone Management Program has 60 days from the receipt of this letter in which to concur with or object to this Consistency Determination, or to request an extension under 15 CFR section 930.41(b). Virginia's concurrence will be presumed if its response is not received by the VAARNG on the 60th day from receipt of this determination. The State's response should be sent to:

Kenneth L. Oristaglio, NFG NG VAARNG
Natural Resources Program Manager
MTC Fort Pickett - Environmental
10th Street, Bldg. 316
Office: (434) 298-6416
Cell: (434) 264-4929
Email - Kenneth.l.oristaglio@mail.mil



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

June 28, 2017

Mr. Ken Oristaglio
Natural Resources Manager
Virginia Department of Military Affairs - Fort Pickett
MTC 10th Street, Bldg, 316 Environmental
Blackstone, VA 23824

RE: Virginia Department of Military Affairs, Virginia Army Reserve National Guard Draft Environmental Assessment and Federal Consistency Certification: Camp Pendleton Draft Integrated Natural Resources Management Plan (DEQ 17-055F).

Dear Mr. Oristaglio:

The Commonwealth of Virginia has completed its review of the draft Environmental Assessment (EA) and a federal consistency certification (FCC) for the above-referenced project. The Department of Environmental Quality (DEQ) is responsible for coordinating Virginia's review of federal environmental documents prepared pursuant to the National Environmental Policy Act (NEPA) and responding to appropriate federal officials on behalf of the Commonwealth. DEQ is also responsible for coordinating state reviews of FCCs submitted under the Coastal Zone Management Act. The following agencies and planning district commission participated in this review:

Department of Environmental Quality
Department of Conservation and Recreation
Department of Health
Department of Historic Resources
Marine Resources Commission
Hampton Roads Planning District Commission

The Department of Game and Inland Fisheries, Department of Forestry and the City of Virginia Beach also were invited to comment on the project.

PROJECT DESCRIPTION

Pursuant to requirements from the U.S. Department of the Army, the Virginia Army Reserve National Guard (VARNG), which is under the Virginia Department of Military Affairs, submitted a FCC and EA for the proposed implementation of the State Military Reserve Camp Pendleton Integrated Natural Resources Management Plan (INRMP) from 2017 through 2021. The implementation of the plan is the preferred alternative that is addressed in the EA and analyzed in the FCC. In accordance with Army policy, the Camp Pendleton INRMP will ensure that no net loss of natural or cultural resources will occur while maintaining the capability of military installation lands to support the military mission of Camp Pendleton. The Camp Pendleton INRMP will serve as the principal management plan governing all natural resource activities on the installation. The FCC states that the implementation of the INRMP would help preserve wetlands and dunes and would not have a negative effect on other resources.

ENVIRONMENTAL IMPACTS AND MITIGATION

1. Wetlands and Water Quality. The EA (page 17) states the preferred alternative would have a significant positive effect as well as minor negative impacts on the water resources present at Camp Pendleton. Management strategies such as: prohibiting the discharge of dredge or fill material in waters of the United States, including wetlands, unless such prohibition is determined to be in direct conflict with the military mission; construction of pre-treatment stormwater management basins at the Croatan and Camp Pendleton sites to trap pollutants prior to entering the lake; installation of aerators on the lake to improve levels of dissolved oxygen during the summer months; and reestablishing the natural riparian buffer along the edges of Lake Christine would allow for an increase in water quality as well as associated habitat biodiversity. Minor negative impacts may occur from pest management (mechanical/physical, biological, and chemical control) through runoff, leaching and/or accidental spill.

1(a) Agency Jurisdiction. The State Water Control Board promulgates Virginia's water regulations, covering a variety of permits to include Virginia Pollutant Discharge Elimination System Permit, Virginia Pollution Abatement Permit, Surface and Groundwater Withdrawal Permit, and the Virginia Water Protection (VWP) Permit. The VWP Permit is a state permit which governs wetlands, surface water, and surface water withdrawals/impoundments. It also serves as § 401 certification of the federal Clean Water Act § 404 permits for dredge and fill activities in waters of the U.S. The VWP Program is under the Office of Wetlands and Stream Protection (OWSP). Tidal wetlands are regulated by VMRC under the authority of Virginia Code §28.2-1301 through §28.2-1320.

1(b) Agency Findings. The DEQ Tidewater Regional Office (TRO) states that projects involving impacts to surface waters, including wetlands, may require a permit.

1(c) Requirements. A Joint Permit Application (JPA) should be submitted for future projects that propose impacts to surface waters or wetlands. A Virginia Pollutant Discharge Elimination System (VPDES) Pesticide Discharges General Permit (9VAC25-800) may be applicable to the proposed pesticide activities.

1(d) Agency Recommendation. Contact the DEQ TRO to determine if the VPDES Pesticide Discharges General Permit (<http://www.deq.virginia.gov/Programs/Water/PermittingCompliance/PollutionDischargeElimination/PermitsFees.aspx#pest>) is applicable to the proposed activities.

1(e) Conclusion. Provided the project complies with applicable requirements, it would be consistent with the wetlands management enforceable policy of the Virginia CZM Program.

2. Subaqueous Lands. The EA (page 17) does not indicate that the proposed plan will have impacts to subaqueous lands.

2(a) Agency Jurisdiction. The Virginia Marine Resources Commission (VMRC) regulates encroachments in, on or over state-owned subaqueous beds as well as tidal wetlands pursuant to Virginia Code §28.2-1200 through 1400. For nontidal waterways, VMRC states that it has been the policy of the Habitat Management Division to exert jurisdiction only over the beds of perennial streams where the upstream drainage area is 5 square miles or greater. The beds of such waterways are considered public below the ordinary high water line.

2(b) Agency Finding. VMRC states that the plan does not appear to impact any state-owned submerged resources.

2(c) Conclusion. As proposed, the project is consistent with the subaqueous lands management enforceable policy of the Virginia CZM Program.

3. Air Pollution Control. The EA (page 2) states that the implementation of the plan is not expected to affect air quality.

3(a) Agency Jurisdiction. The DEQ Air Division, on behalf of the State Air Pollution Control Board, is responsible for developing regulations that implement Virginia's Air Pollution Control Law (Virginia Code §10.1-1300 et seq.). DEQ is charged with carrying out mandates of the state law and related regulations as well as Virginia's federal obligations under the Clean Air Act as amended in 1990. The objective is to protect and enhance public health and quality of life through control and mitigation of air pollution. The division ensures the safety and quality of air in Virginia by monitoring and analyzing air quality data, regulating sources of air pollution, and working with local, state and

federal agencies to plan and implement strategies to protect Virginia's air quality. The appropriate DEQ regional office is directly responsible for the issuance of necessary permits to construct and operate all stationary sources in the region as well as monitoring emissions from these sources for compliance. As a part of this mandate, environmental impact reviews (EIRs) of projects to be undertaken in the state are also reviewed. In the case of certain projects, additional evaluation and demonstration must be made under the general conformity provisions of state and federal law.

The Air Division regulates emissions of air pollutants from industries and facilities and implements programs designed to ensure that Virginia meets national air quality standards. The most common regulations associated with projects are:

- Open burning: 9VAC5-130 et seq.
- Fugitive dust control: 9VAC5-50-60 et seq.
- Permits for fuel-burning equipment: 9VAC5-80-1100 et seq.

3(b) Ozone Attainment Area. According to the DEQ Air Division, the project site is located in an ozone attainment area and an emission control area for volatile organic compounds (VOCs) and oxides of nitrogen (NO_x), which are contributors to ozone pollution.

3(c) Requirements. The plan should ensure that the following requirements are satisfied during land-disturbing projects.

3(c)(i) Fugitive Dust. The plan should ensure that during future land-disturbing activities, fugitive dust is kept to a minimum by using control methods outlined in 9VAC5-50-60 et seq. of the Regulations for the Control and Abatement of Air Pollution. These precautions include, but are not limited to, the following:

- Use, where possible, water or suitable chemicals for dust control during the proposed demolition and construction operations and from material stockpiles;
- Install and use of hoods, fans and fabric filters to enclose and vent the handling of dusty materials;
- Cover open equipment for conveying materials; and
- Promptly remove spilled or tracked dirt or other materials from paved streets and dried sediments resulting from soil erosion.

3(c)(ii) Fuel-Burning Equipment. Fuel-burning equipment (generators, compressors, etc.) or any other air-pollution-emitting equipment may be subject to registration or permitting requirements.

3(c)(iii) Open Burning. If project activities change to include the burning of vegetative debris, this activity must meet the requirements under 9VAC5-130 et seq. of the

regulations for open burning, and it may require a permit. The regulations provide for, but do not require, the local adoption of a model ordinance concerning open burning. Contact officials with the locality to determine what local requirements, if any, exist.

3(c)(iv) Asphalt Paving. In accordance with 9VAC5-45-760 *et seq.*, there are limitations on the use of “cut-back” (liquefied asphalt cement, blended with petroleum solvents) that may apply to paving activities associated with the project. The asphalt must be “emulsified” (predominantly cement and water with a small amount of emulsifying agent) except when specified circumstances apply. Moreover, there are time-of-year restrictions on its use during the months of April through October in VOC emission control areas.

3(d) Agency Recommendation. For future land-disturbing projects, the plan should ensure that all necessary precautions taken to restrict the emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO_x).

3(e) Conclusion. Provided the project complies with applicable requirements, it would be consistent with the air pollution control enforceable policy of the Virginia CZM Program.

4. Chesapeake Bay Preservation Areas. The EA (page 21) states that Camp Pendleton is not within the Chesapeake Bay watershed and is therefore not subject to requirements under the Chesapeake Bay Preservation Act.

4(a) Agency Jurisdiction. The DEQ Office of Local Government Programs (OLGP) administers the Chesapeake Bay Preservation Act (Virginia Code §62.1-44.15:67 *et seq.*) (Bay Act) and Chesapeake Bay Preservation Area Designation and Management Regulations (9VAC25-830-10 *et seq.*). Each Tidewater locality must adopt a program based on the Chesapeake Bay Preservation Act and the Chesapeake Bay Preservation Area Designation and Management Regulations. The Act and regulations recognize local government responsibility for land use decisions and are designed to establish a framework for compliance without dictating precisely what local programs must look like. Local governments have flexibility to develop water quality preservation programs that reflect unique local characteristics and embody other community goals. Such flexibility also facilitates innovative and creative approaches in achieving program objectives. The regulations address nonpoint source pollution by identifying and protecting certain lands called Chesapeake Bay Preservation Areas. The regulations use a resource-based approach that recognizes differences between various land forms and treats them differently.

4(b) Agency Findings. The DEQ OLGP states that Camp Pendleton is located outside of the City of Virginia Beach’s designated Chesapeake Bay Preservation Area because

it is in the Atlantic Ocean drainage basin. As such, there are no Chesapeake Bay Preservation Act requirements relevant to this project.

4(c) Conclusion. As proposed, the project is consistent with the coastal lands management enforceable policy of the Virginia CZM Program.

5. Nonpoint Pollution Control. According to the EA (page 16), the plan ensures that there are adequate erosion and sediment controls in place during any land disturbance associated with ground maintenance.

5(a) Agency Jurisdiction. The DEQ Office of Stormwater Management (OSM) administers the following laws and regulations governing construction activities:

- Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq.) and Regulations (VESCL&R) (9VAC25-840);
- Virginia Stormwater Management Act (VSMA) (§ 62.1-44.15:24 et seq.);
- Virginia Stormwater Management Program (VSMP) regulation (9VAC25-870); and
- 2014 General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Construction Activities (9VAC25-880).

In addition, DEQ is responsible for the VSMP General Permit for Stormwater Discharges from Construction Activities related to Municipal Separate Storm Sewer Systems (MS4s) and construction activities for the control of stormwater discharges from MS4s and land disturbing activities under the Virginia Stormwater Management Program (9VAC25-890-40).

5(b) Requirements. The plan should protect water resources by ensuring that future land-disturbing projects incorporate appropriate erosion and sediment control and stormwater management requirements.

5(b)(i) Erosion and Sediment Control Project-Specific Plans. If the VARNG has no previously DEQ-approved Annual Standards and Specifications and the project results in a land-disturbing activity of equal to or greater than 10,000 square feet (or local thresholds when they are more stringent than state requirements), the applicant must prepare a project-specific erosion and sediment control (ESC) plan and submit it to DEQ for review and approval. The ESC plan must be approved prior to commencing land-disturbing activity at the project site. All regulated land-disturbing activities associated with the project, including on- and off-site access roads, staging areas, borrow areas, stockpiles, and soil transported from the project site, must be covered by the project-specific ESC plan. The ESC plan must be prepared in accordance with the VESCL and VESCR and the most current version of the *Virginia Erosion and Sediment Control Handbook*.

5(b)(ii) Stormwater Management Project-Specific Plans. For state-agency projects that involve a land-disturbing activity of equal to or greater than one acre and if the state agency has no previously DEQ-approved Annual Standards and Specifications the Applicant must prepare a project-specific stormwater management (SWM) plan for review and approval by DEQ. An approved plan is required prior to initiation of any regulated activities at the project site. The project-specific SWM plan must be prepared in accordance with the VSWML and the VSMP Permit Regulations.

5(b)(iii) General Permit for Stormwater Discharges from Construction Activities (VAR10). The operator or owner of a construction project involving land-disturbing activities equal to or greater than one acre is required to register for coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project-specific stormwater pollution prevention plan (SWPPP). The SWPPP must be prepared prior to submission of the registration statement for coverage under the general permit and the SWPPP must address water quality and quantity in accordance with the VSMP Permit Regulations. General information and registration forms for the General Permit are available on DEQ's website at <http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/ConstructionGeneralPermit.aspx> (Reference: VSWML 62.1-44.15 et seq.; VSMP Permit Regulations 9VAC 25-870-10 et seq.).

5(c) Conclusion. As proposed, the project would be consistent with the nonpoint pollution control enforceable policy of the Virginia CZM Program.

6. Natural Heritage Resources. The EA (page 17) states that implementation of the plan could have a significant positive effect on the flora and fauna present at Camp Pendleton. The programs address issues related to the management of game and non-game species and their habitats, as well as biodiversity; work to prevent invasive species and pest incursions that would reduce habitat and biodiversity on Camp Pendleton; focus on monitoring and maintaining shoreline resources; and promote environmental awareness. The programs will ensure that migratory bird habitat will be conserved and maintained.

6(a) Agency Jurisdiction.

6(a)(i) The Virginia Department of Conservation and Recreation's (DCR) Division of Natural Heritage (DNH): DNH's mission is conserving Virginia's biodiversity through inventory, protection and stewardship. The Virginia Natural Area Preserves Act (Virginia Code §10.1-209 through 217), authorized DCR to maintain a statewide database for conservation planning and project review, protect land for the conservation of biodiversity, and to protect and ecologically manage the natural heritage resources of

Virginia (the habitats of rare, threatened and endangered species, significant natural communities, geologic sites, and other natural features).

6(a)(ii) The Virginia Department of Agriculture and Consumer Services (VDACS): The Endangered Plant and Insect Species Act of 1979 (Virginia Code Chapter 39 §3.1-1020 through 1030) authorizes VDACS to conserve, protect and manage endangered and threatened species of plants and insects. Under a Memorandum of Agreement established between VDACS and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species.

6(b) Agency Findings – Natural Heritage Resources. According to the information currently in DCR DNH's files, the Camp Pendleton – Dam Neck Dune and Swale Conservation Site is located within the project site. The site has been given a biodiversity significance ranking of B3, which represents a site of high significance. The natural heritage resources of concern at this site are:

- *Cicindela trifasciata*, S-banded tiger beetle, G5/S1/NL/NL
- *Quercus incana*, Bluejack oak, G5/S2/NL/NL

In addition, White-top fleabane (*Erigeron vernus*, G5/S2/NL/NL), Carolina yellow-eyed grass (*Xyris caroliniana*, G4G5/S1/NL/NL), Dune marsh-elder (*Iva imbricata*, G5/S1/NL/NL), and Glossy-seed yellow stargrass (*Hypoxis sessilis*, G4/SH/NL/NL) have been historically documented within the project site. Finally, according to the DCR staff botanist, there is the potential for *Eupatorium maritimum*, G2/S1/SOC/NL to occur within the property. Contact DCR for additional information about this species. Additional comments are in DCR's attached letter.

6(c) Agency Findings – Threatened and Endangered Plant and Insect Species. DCR states that the current activity will not affect any documented state-listed plants or insects.

6(d) Agency Findings – Natural Area Preserves. There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

6(e) Agency Recommendations. While specific recommendations can only be given after a survey of natural heritage resources has been completed, DCR generally supports the *Draft Update INRMP 2017 – 2021, Section 6: Natural Resource Program Management*, including management items on page 45 as well as #2 to focus training in non-sensitive habitats, #3 minimize maintained areas, promoting native plant revegetation, monitoring and developing an exotic and invasive species management plan, and #4 managing the conservation of migratory species. DCR also supports 5-year surveys for rare, threatened and endangered species, monitoring beachfront and

dune systems, and restricting access during breeding season for sea turtles (as stated on page 46) and following U.S. Fish and Wildlife Service (FWS) guidelines for northern long-eared bat (pages 46-47), as well as the Grounds Maintenance, Forest Management sections and the Integrated Pest Management Program (pages 49 -52) recommendations.

- Contact DCR DNH to re-submit project information and a map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.
- Due to the potential for this site to support populations of natural heritage resources, contact an inventory for these resources in the study area and submit the results to DCR. With the survey results, DCR can offer specific protection recommendations for avoidance and minimization of potential impacts to documented resources. Contact DCR DNH (J. Christopher Ludwig, Natural Heritage Inventory Manager, at chris.ludwig@dcr.virginia.gov or 804-371-6206) to discuss arrangements for field work.
- Use native species similar to those found in surrounding areas when revegetating disturbed areas and plant native flowers that bloom throughout the spring and summer to support pollinator habitat.

7. Water Supply. The EA does not address impacts to water supplies.

7(a) Agency Jurisdiction. The Virginia Department of Health (VDH) Office of Drinking Water (ODW) reviews projects for the potential to impact public drinking water sources (groundwater wells, springs and surface water intakes). The VDH ODW administers both federal and state laws governing waterworks operation.

7(b) Agency Comment. VDH ODW states that no surface water intakes are located within a 5-mile radius of the project site. The project is not within the watershed of any public surface water intakes. The following public groundwater wells are located within a 1-mile radius of the project site:

PWS ID Number	City/County	System Name	Facility Name
3810250	VIRGINIA BEACH	HOLIDAY TRAV-L-PARK	DRILLED WELL NUMBER 4 INSIDE
3810250	VIRGINIA BEACH	HOLIDAY TRAV-L-PARK	DRILLED WELL NUMBER 3 OUTSIDE
3810530	VIRGINIA BEACH	RED WING GOLF COURSE	WELL - NEW

3810200	VIRGINIA BEACH	KOA CAMPGROUNDS- VIRGINIA BEACH	NEW WELL
3810108	VIRGINIA BEACH	KNIGHTS OF COLUMBUS	DEEP WELL

7(c) Requirement. Potential impacts to public water distribution systems or sanitary sewage collection systems must be verified by the local utility according to VDH ODW.

8. Historic and Archaeological Resources. The EA (page 18) states that the implementation of the plan may result in minor negative impacts to cultural resources because Camp Pendleton is a historic district. However, the Integrated Cultural Resources Management Plan will be followed.

8(a) Agency Jurisdiction. The Virginia Department of Historic Resources (DHR) conducts reviews of both federal and state projects to determine their effect on historic properties. Under the federal process, DHR is the State Historic Preservation Office, and ensures that federal undertakings – including licenses, permits, or funding – comply with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulation at 36 CFR Part 800. Section 106 requires federal agencies to consider the effects of federal projects on properties that are listed or eligible for listing on the National Register of Historic Places. For state projects or activities on state lands, DHR is afforded an opportunity to review and comment on (1) the demolition of state property; (2) major state projects requiring an EIR; (3) archaeological investigations on state-controlled land; (4) projects that involve a landmark listed in the Virginia Landmarks Register; (5) the sale or lease of surplus state property; (6) exploration and recovery of underwater historic properties; and (7) excavation or removal of archaeological or historic features from caves. See DHR’s website for more information about applicable state and federal laws and how to submit an application for review: <http://www.dhr.virginia.gov/StateStewardship/Index.htm>.

8(b) Agency Comments. DHR reviewed the draft updated INRMP for Camp Pendleton and states that the implementation of the plan will have no effect to historic properties.

9. Pollution Prevention. DEQ advocates that principles of pollution prevention and sustainability be used in all construction projects as well as in facility operations. Effective siting, planning, and on-site Best Management Practices (BMPs) will help to ensure that environmental impacts are minimized. However, pollution prevention and sustainability techniques also include decisions related to construction materials, design, and operational procedures that will facilitate the reduction of wastes at the source.

9(a) Recommendations. We have several pollution prevention recommendations that may be helpful in constructing or operating this facility:

- Consider development of an effective Environmental Management System (EMS). An effective EMS will ensure that the proposed facility is committed to complying with environmental regulations, reducing risk, minimizing environmental impacts, setting environmental goals, and achieving improvements in its environmental performance. DEQ offers EMS development assistance and recognizes facilities with effective Environmental Management Systems through its Virginia Environmental Excellence Program (VEEP). VEEP provides recognition, annual permit fee discounts, and the possibility for alternative compliance methods.
- Consider environmental attributes when purchasing materials. For example, the extent of recycled material content, toxicity level, and amount of packaging should be considered and can be specified in purchasing contracts.
- Consider contractors' commitment to the environment when choosing contractors. Specifications regarding raw materials and construction practices can be included in contract documents and requests for proposals.
- Choose sustainable materials and practices for building construction and design.
- Integrate pollution prevention techniques into the facility maintenance and operation, to include inventory control for centralized storage of hazardous materials. Maintenance facilities should have sufficient and suitable space to allow for effective inventory control and preventive maintenance.

DEQ's Office of Pollution Prevention provides information and technical assistance relating to pollution prevention techniques and EMS. If interested, please contact DEQ (Meghann Quinn at 804-698-4021).

10. Pesticides and Herbicides. In general, when pesticides or herbicides must be used, their use should be strictly in accordance with manufacturers' recommendations. In addition, to the extent feasible, DEQ recommends that the responsible agent for the project use the least toxic pesticides or herbicides effective in controlling the target species. For more information on pesticide or herbicide use, please contact the Virginia Department of Agriculture and Consumer Services at (804) 786-3501.

11. Regional Review. As customary, DEQ invited the affected locality and planning district commission to comment.

11(a) Agency Jurisdiction. In accordance with the Virginia Code, §15.2-4207, planning district commissions encourage and facilitate local government cooperation and state-local cooperation in addressing, on a regional basis, problems of greater than local significance. The cooperation resulting from this is intended to facilitate the recognition and analysis of regional opportunities and take account of regional influences in

planning and implementing public policies and services. Planning district commissions promote the orderly and efficient development of the physical, social and economic elements of the districts by planning, and encouraging and assisting localities to plan, for the future.

11(b) Agency Comments. The Hampton Roads Regional Planning District Commission states that the proposed project appears to be consistent with local and regional plans and policies.

FEDERAL CONSISTENCY UNDER THE COASTAL ZONE MANAGEMENT ACT

Pursuant to the Coastal Zone Management Act (CZMA) of 1972, as amended (16 USC, CZMA § 307, § 1456(c)(3)(A)) and its implementing federal consistency regulations (15 CFR Part 930, subpart D), any applicant for a required listed federal license or permit to conduct an activity, in or outside of the coastal zone, affecting any land or water use or natural resource of the coastal zone of the Commonwealth, shall provide in the application to the licensing or permitting agency a certification that the proposed activity complies with the enforceable policies of the Virginia CZM Program and that such activity will be conducted in a manner consistent with the program. At the same time, the applicant shall furnish to DEQ a copy of the certification with all necessary information and data. The Commonwealth has six months after receipt of a complete FCC to concur or object to the applicant's finding of project consistency with the Virginia CZM Program. The Virginia CZM Program is comprised of a network of programs administered by several agencies. In order to be consistent with the Virginia CZM Program, all the applicable permits and approvals listed under the enforceable policies of the Virginia CZM Program must be obtained prior to commencing the project.

PUBLIC PARTICIPATION

In accordance with 15 CFR §930.2, a public notice of this proposed action with a public comment period from May 1, 2017 to May 19, 2017 was published in OEIR's Program Newsletter and on the DEQ website. No public comments were received in response to the notice.

FEDERAL CONSISTENCY CONCURRENCE

Based on a review of the FCC and the comments submitted by agencies administering the applicable enforceable policies of the Virginia CZM Program, DEQ concurs that the proposal is consistent with the Virginia CZM Program provided all applicable permits and approvals are obtained as described below. If, prior to construction, the project should change significantly and any of the enforceable policies of the Virginia CZM Program would be affected, pursuant to 15 CFR §930.66, the applicant must submit supplemental information to DEQ for review and approval. Other state approvals which

may apply to this project are not included in this FCC. Therefore, the applicant must ensure that this project is constructed and operated in accordance with all applicable federal, state, and local laws and regulations. In addition, in accordance with 15 CFR Part 930, subpart D, § 930.58(a) (3), the applicant considered the project's impacts on the Advisory Policies of the Virginia CZM Program and found the proposal consistent with those policies.

REGULATORY AND COORDINATION NEEDS

1. Wetlands and Water Quality. If future projects require impacts to wetlands or surface waters, plan to submit a JPA to VMRC (Tony Watkinson at Tony.Watkinson@vmrc.virginia.gov). Contact DEQ TRO (Bert Parolari at Bert.Parolari@deq.virginia.gov) for additional information on the VWP Permit Program. Contact DEQ (Janet Weyland at Janet.Weyland@deq.virginia.gov or 757-518-2151 to determine if the (VPDES) Pesticide Discharges General Permit is applicable to the proposed activities.

2. Air Quality. Contact officials with the appropriate locality for information on any local requirements pertaining to open burning. Contact DEQ TRO (Wayne Franklin at Wayne.Franklin@deq.virginia.gov or 757-518-2155) for additional information on air regulations if necessary.

3. Erosion and Sediment Control and Stormwater Management.

3(a) Erosion and Sediment Control Plan. If the VARNG has no previously DEQ-approved Annual Standards and Specifications and land disturbance results in a land-disturbing activity of equal to or greater than 10,000 square feet, the agency must receive approval for the project-specific ESC plan prior to initiation of any land-disturbing activity at the project site. Virginia Code 10.1-564 stipulates that state ESC plans for projects on state-owned lands must be consistent with local ESC requirements that are more stringent than the state program. Coordinate with the DEQ TRO (Janet Weyland at Janet.Weyland@deq.virginia.gov or 757-518-215) regarding applicable requirements if applicable (Reference: VESCL 62.1-44.15 et seq. and VESCR 9VAC25-840-30, 9VAC25-840-40 and 9VAC25-840-100).

3(b) Stormwater Management Plan. If the VARNG has no previously DEQ-approved Annual Standards and Specifications, a project-specific SWM plan must be reviewed and approved by DEQ for state agency projects that involve a land use conversion activity equal to or greater than one acre. The project-specific SWM plan must be prepared in accordance with the VSWML and the VSMP Permit Regulations. Questions should be directed to DEQ TRO (Janet Weyland at Janet.Weyland@deq.virginia.gov or 757-518-215) (Reference: VSML 62.1-44.15 et seq.; VSMP Permit Regulations 9VAC25-870-160).

3(c) General Permit for Stormwater Discharges from Construction Activities (VAR10). The owner/operator of projects involving land-disturbing activities of equal to or greater than one acre is required to apply for registration coverage under the General Permit for Discharges of Stormwater from Construction Activities. In accordance with 9VAC25-870-160, state projects must comply with the state regulation and, to the maximum extent practicable, with any local stormwater management program technical requirements adopted pursuant to the SWM Act. It is the responsibility of the state agency to demonstrate that the local program technical requirements are not practical for the project under consideration. The owner/operator must also develop a project-specific SWPPP. Specific questions regarding the Stormwater Management Program requirements should be directed to the DEQ Water Division (Holly Sepety at Holly.Sepety@deq.virginia.gov or 804-698-4039) (Reference: VSWML § 62.1-44.15 et seq.; VSMP 9VAC25-880 et seq.).

4. Solid and Hazardous Wastes. Contact DEQ TRO (Melinda Woodruff at Melinda.Woodruff@deq.virginia.gov) for additional information about waste management if necessary.

5. Natural Heritage Resources.

- Contact the DCR DNH (804-371-2708) to re-submit project information and a map for an update on natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.
- Coordinate with DCR DNH (Rene' Hypes, Natural Heritage Project Coordinator at 804-371-2708) for additional information on its comments and recommendations as necessary.

Thank you for the opportunity to comment on this EA and FCC. The detailed comments of reviewers are attached. If you have questions, please do not hesitate to call me at (804) 698-4204 or Julia Wellman at (804) 698-4326.

Sincerely,



Bettina Sullivan, Manager
Environmental Impact Review and Long Range
Priorities Program

Enclosures

ec: Amy Ewing, DGIF
Robbie Rhur, DCR
Susan Douglas, VDH

Roger Kirchen, DHR
Tony Watkinson, VMRC
Greg Evans, DOF
Dave Hansen, Virginia Beach
Ben McFarlane, HRPDC
Mark McElroy, Stantec
Ken Oristaglio, DMA

Molly Joseph Ward
Secretary of Natural Resources

Clyde E. Cristman
Director



Rochelle Altholz
Deputy Director of
Administration and Finance

David C. Dowling
Deputy Director of
Soil and Water Conservation
and Dam Safety

Thomas L. Smith
Deputy Director of Operations

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

MEMORANDUM

DATE: May 30, 2017
TO: Julia Wellman, DEQ
FROM: Roberta Rhur, Environmental Impact Review Coordinator
SUBJECT: DEQ 17-055F, Updated Integrated Natural Resource Management Plan, Camp Pendleton

Division of Natural Heritage

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in our files, the Camp Pendleton - Dam Neck Dune and Swale Conservation Site is located within the project site. Conservation sites are tools for representing key areas of the landscape that warrant further review for possible conservation action because of the natural heritage resources and habitat they support. Conservation sites are polygons built around one or more rare plant, animal, or natural community designed to include the element and, where possible, its associated habitat, and buffer or other adjacent land thought necessary for the element's conservation. Conservation sites are given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain; on a scale of 1-5, 1 being most significant. Camp Pendleton - Dam Neck Dune and Swale Conservation Site has been given a biodiversity significance ranking of B3, which represents a site of high significance. The natural heritage resources of concern at this site are:

<i>Cicindela trifasciata</i> ,	S-banded tiger beetle	G5/S1/NL/NL
<i>(Quercus incana</i>	Bluejack oak	G5/S2/NL/NL

The S-banded tiger beetle, has a broad range, from southern California to central Chile and from Virginia south to Venezuela (NatureServe, 2009). In Virginia, it is known from the southern coastal plain and piedmont. It has a dark brown - blackish dorsal surface with a greenish hue (Knisely and Schulz, 1997). The dorsal surface is covered with shallow green punctures. The ventral surface of the thorax is coppery and the abdomen is metallic blue or greenish-blue (Knisely and Schulz, 1997). This tiger beetle occurs in a wide variety of water-edge habitats, including mudflats or swales in coastal areas, tidal estuaries, marshes and bays, and pond, river and stream edges (Knisely and Schultz, 1997). Threats to this and other tiger beetles include habitat destruction from development or conversion to agricultural or timber operations.

Bluejack oak is a small evergreen tree with dark brown to gray bark that is broken into squares; it also has elliptical leaves with a bluish hue. This tree is found in dry sandy soil (sandhills) (Radford et al, 1968). Bluejack oak is currently known from 11 occurrences and historically known from 5 occurrences in Virginia's coastal plain.

In addition, White-top fleabane (*Erigeron vernus*, G5/S2/NL/NL), Carolina yellow-eyed grass (*Xyris caroliniana*, G4G5/S1/NL/NL), Dune marsh-elder (*Iva imbricata*, G5?/S1/NL/NL), and Glossy-seed yellow stargrass (*Hypoxis sessilis*, G4/SH/NL/NL) have been historically documented within the project site.

Finally, according to the DCR staff botanist, there is the potential for *Eupatorium maritimum*, G2?/S1/SOC/NL to occur within the property. (See attached paper for further information on this species)

Due to the potential for this site to support populations of natural heritage resources, DCR recommends an inventory for these resources in the study area. With the survey results we can more accurately evaluate potential impacts to natural heritage resources and offer specific protection recommendations for minimizing impacts to the documented resources.

DCR-Division of Natural Heritage biologists are qualified and available to conduct inventories for rare, threatened, and endangered species. Please contact J. Christopher Ludwig, Natural Heritage Inventory Manager, at chris.ludwig@dcr.virginia.gov or 804-371-6206 to discuss arrangements for field work.

While specific recommendations can only be given after a survey of natural heritage resources has been completed, DCR does generally support the *Draft Update INRMP 2017 – 2021, Section 6: Natural Resource Program Management* including management items on page 45, including #2 to focus training in non-sensitive habitats, #3 minimize maintained areas, promoting native plant revegetation, monitoring and developing an exotic and invasive species management plan, and #4 managing the conservation of migratory species. DCR also supports 5 year surveys for rare, threatened and endangered species, monitoring beachfront and dune systems and restricting access during breeding season for sea turtles (as stated on page 46) and following USFWS guidelines for northern long-eared bat. (pp 46-47), as well as the Grounds Maintenance, Forest Management sections and the Integrated Pest Management Program (pp49 - 52) recommendations. Furthermore, DCR also recommends the use of native species similar to those found in surrounding areas when revegetating disturbed areas and plant native flowers that bloom throughout the spring and summer to support pollinator habitat.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

New and updated information is continually added to Biotics. Please re-submit project information and map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Ernie Aschenbach at 804-367-2733 or Ernie.Aschenbach@dgif.virginia.gov.

The remaining DCR divisions have no comments regarding the scope of this project. Thank you for the opportunity to comment.

Cc: Julia Wellman, DEQ

Literature Cited

Knisley, C.B. and T.D. Schulz. 1997. *The Biology of Tiger Beetles and a Guide to the species of the South Atlantic States*. Virginia Museum of Natural History, Special Publication Number 5, Martinsville, VA. p. 134.

NatureServe. 2009. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: March 30, 2010).

Radford, A.E., H.A. Ahles, C.R. Bell. 1968. *Manual of the Vascular Flora of the Carolinas*. University of North Carolina Press, Chapel Hill. p. 385.

Wellman, Julia (DEQ)

From: Warren, Arlene (VDH)
Sent: Wednesday, April 19, 2017 4:50 PM
To: Wellman, Julia (DEQ)
Subject: RE: NEW PROJECT ARMY DMA INRMP 17-055F

Project Name: Updated Integrated Natural Resource Management Plan, Camp Pendleton State Military Reserve
Project #: 17-055F
UPC #: N/A
Location: City of Virginia Beach

VDH – Office of Drinking Water has reviewed the above project. Below are our comments as they relate to proximity to **public drinking water sources** (groundwater wells, springs and surface water intakes). Potential impacts to public water distribution systems or sanitary sewage collection systems **must be verified by the local utility.**

The following public groundwater wells are located within a 1 mile radius of the project site:

PWS ID Number	City/County	System Name	Facility Name
3810250	VIRGINIA BEACH	HOLIDAY TRAV-L-PARK	DRILLED WELL NUMBER 4 INSIDE
3810250	VIRGINIA BEACH	HOLIDAY TRAV-L-PARK	DRILLED WELL NUMBER 3 OUTSIDE
3810530	VIRGINIA BEACH	RED WING GOLF COURSE	WELL - NEW
3810200	VIRGINIA BEACH	KOA CAMPGROUNDS- VIRGINIA BEACH	NEW WELL
3810108	VIRGINIA BEACH	KNIGHTS OF COLUMBUS	DEEP WELL

There are no surface water intakes located within a 5 mile radius of the project site.

The project is not within the watershed of any public surface water intakes.

Best Regards,

Arlene Fields Warren
GIS Program Support Technician
Office of Drinking Water
Virginia Department of Health
109 Governor Street
Richmond, VA 23220
(804) 864-7781

The Virginia Department of Health – Office of Drinking Water appreciates the opportunity to provide comments. If you have any questions, please let me know.

From: Fulcher, Valerie (DEQ)
Sent: Monday, April 17, 2017 1:41 PM
To: dgif-ESS Projects (DGIF); Rhur, Robbie (DCR); odwreview (VDH); Narasimhan, Kotur (DEQ); Gavan, Larry (DEQ); Moore, Daniel (DEQ); Sepety, Holly (DEQ); Robinson, Cindy (DEQ); Kirchen, Roger (DHR); Evans, Gregory (DOF); Watkinson, Tony (MRC); Ben McFarlane; jmcbride@hrpdcva.gov; plan@vbgov.com
Cc: Wellman, Julia (DEQ)
Subject: NEW PROJECT ARMY DMA INRMP 17-055F



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

Fax: 804-698-4019 - TDD (804) 698-4021

www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4020
1-800-592-5482

MEMORANDUM

TO: Daniel Moore

FROM: Shawn Smith, Chesapeake Bay Local Assistance

DATE: May 18, 2017

SUBJECT: DEQ 17-055F, Camp Pendleton-Integrated Natural Resource Management Plan, City of Virginia Beach

The project is an update to the Integrated Natural Resource Management Plan for Camp Pendleton in the City of Virginia Beach. Camp Pendleton is located outside of the City's designation CBPA, as it is in the Atlantic Ocean drainage basin. As such, there are no Bay Act requirements relevant to this project.

Wellman, Julia (DEQ)

From: Gavan, Larry (DEQ)
Sent: Tuesday, June 20, 2017 3:17 PM
To: Wellman, Julia (DEQ)
Cc: Zegler, Hannah (DEQ)
Subject: RE: NEW PROJECT ARMY DMA INRMP 17-055F

Ques.- Do we use the non-educational state agency statements or something else?

Ans.- Pls. use the non-educational state agency.

Hope this helps

Thx

L

From: Wellman, Julia (DEQ)
Sent: Tuesday, June 20, 2017 3:06 PM
To: Gavan, Larry (DEQ); Zegler, Hannah (DEQ)
Subject: FW: NEW PROJECT ARMY DMA INRMP 17-055F

What comments would apply to proposed land disturbance by the Virginia Department of Military Affairs on the state-owned Camp Pendleton AND the entities (including federal government and private entities) to which the state-owned land is leased?

Do we use the non-educational state agency statements or something else?

From: Fulcher, Valerie (DEQ)
Sent: Monday, April 17, 2017 1:41 PM
To: dgif-ESS Projects (DGIF); Rhur, Robbie (DCR); odwreview (VDH); Narasimhan, Kotur (DEQ); Gavan, Larry (DEQ); Moore, Daniel (DEQ); Sepety, Holly (DEQ); Robinson, Cindy (DEQ); Kirchen, Roger (DHR); Evans, Gregory (DOF); Watkinson, Tony (MRC); Ben McFarlane; jmcbride@hrpdcva.gov; plan@vbgov.com
Cc: Wellman, Julia (DEQ)
Subject: NEW PROJECT ARMY DMA INRMP 17-055F

Good afternoon - this is a new OEIR review request/project:

Document Type: Federal Consistency Certification

Project Sponsor: DOD/Department of the Army/Virginia Dept. of Military Affairs

Project Title: Updated Integrated Natural Resource Management Plan, Camp Pendleton State Military Reserve

Location: City of Virginia Beach

Project Number: DEQ #17-055F

The document is available at www.deq.virginia.gov/filesshare/oeir in the ARMY folder ("Camp Pendleton State Military Reserve").

The due date for comments is MAY 17, 2017. You can send your comments either directly to Julia by email (Julia.Wellman@deq.virginia.gov), or you can send your comments by regular interagency/U.S. mail to the Department of Environmental Quality, Office of Environmental Impact Review, 629 E. Main St., 6th Floor, Richmond, VA 23219.



DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
ENVIRONMENTAL IMPACT REVIEW COMMENTS

June 28, 2017

PROJECT NUMBER: 17-055F

PROJECT TITLE: Updated Integrated Natural Resource Management Plan, Camp Pendleton State Military Reserve

As Requested, TRO staff has reviewed the supplied information and has the following comments:

Petroleum Storage Tank Cleanups:

No comments.

Petroleum Storage Tank Compliance/Inspections:

No comments.

Virginia Water Protection Permit Program (VWPP):

Projects involving impacts to surface waters, including wetlands, may require a permit from our program. Provided the applicant receives the proper authorization from our program, these projects will be consistent with our program.

Air Permit Program :

No air permitting issues identified.

Water Permit Program :

No comments.

Waste Permit Program :

No comments.

Storm Water Program:

No Comments.



DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
ENVIRONMENTAL IMPACT REVIEW COMMENTS

June 28, 2017

PROJECT NUMBER: 17-055F

PROJECT TITLE: Updated Integrated Natural Resource Management Plan, Camp Pendleton State Military Reserve

The staff from the Tidewater Regional Office thanks you for the opportunity to provide comments.

Sincerely,

Cindy Robinson
Environmental Specialist II
5636 Southern Blvd.
VA Beach, VA 23462
(757) 518-2167
Cindy.Robinson@deq.virginia.gov

Wellman, Julia (DEQ)

From: Worrell, Justin (MRC)
Sent: Thursday, May 04, 2017 11:21 AM
To: Wellman, Julia (DEQ)
Subject: FW: NEW PROJECT ARMY DMA INRMP 17-055F

VMRC has no comments regarding this project. It does not appear to impact any State-owned submerged resources.

Justin D. Worrell
Environmental Engineer, Sr.
Habitat Management Division
Virginia Marine Resources Commission
(757) 247-8063 telephone
(757) 247-8062 fax

From: Watkinson, Tony (MRC)
Sent: Monday, April 17, 2017 1:43 PM
To: Worrell, Justin (MRC) <Justin.Worrell@mrc.virginia.gov>
Subject: FW: NEW PROJECT ARMY DMA INRMP 17-055F

From: Fulcher, Valerie (DEQ)
Sent: Monday, April 17, 2017 1:41 PM
To: dgif-ESS Projects (DGIF) <rr.dgif-ESSProjects@dgif.virginia.gov>; Rhur, Robbie (DCR) <Robbie.Rhur@dcr.virginia.gov>; odwreview (VDH) <odwreview-VDH@cov.virginia.gov>; Narasimhan, Kotur (DEQ) <Kotur.Narasimhan@deq.virginia.gov>; Gavan, Larry (DEQ) <Larry.Gavan@deq.virginia.gov>; Moore, Daniel (DEQ) <Daniel.Moore@deq.virginia.gov>; Sepety, Holly (DEQ) <Holly.Sepety@deq.virginia.gov>; Robinson, Cindy (DEQ) <Cindy.Robinson@deq.virginia.gov>; Kirchen, Roger (DHR) <Roger.Kirchen@dhr.virginia.gov>; Evans, Gregory (DOF) <Gregory.Evans@dof.virginia.gov>; Watkinson, Tony (MRC) <Tony.Watkinson@mrc.virginia.gov>; Ben McFarlane <bmcfarlane@hrpdcva.gov>; jmcbride@hrpdcva.gov; plan@vbgov.com
Cc: Wellman, Julia (DEQ) <Julia.Wellman@deq.virginia.gov>
Subject: NEW PROJECT ARMY DMA INRMP 17-055F

Good afternoon - this is a new OEIR review request/project:

Document Type: Federal Consistency Certification
Project Sponsor: DOD/Department of the Army/Virginia Dept. of Military Affairs
Project Title: Updated Integrated Natural Resource Management Plan, Camp Pendleton State Military Reserve
Location: City of Virginia Beach
Project Number: DEQ #17-055F

The document is available at www.deq.virginia.gov/files/oeir in the ARMY folder ("Camp Pendleton State Military Reserve").

Wellman, Julia (DEQ)

From: Holma, Marc (DHR)
Sent: Monday, April 24, 2017 10:13 AM
To: Wellman, Julia (DEQ)
Cc: Smead, Susan E NFG NG VAARNG (US)
Subject: updated Integrated National Resource Management Plan, Camp Pendleton, City of Virginia Beach (DHR #2017-0363; DEQ #17-055F)

Julia,

The DHR has reviewed the draft updated INRMP for Camp Pendleton and have no comment. We believe the implementation of the plan will have No Effect to historic properties.

Sincerely,
Marc Holma

Wellman, Julia (DEQ)

From: Ben McFarlane <bmcfarlane@hrpdcva.gov>
Sent: Friday, May 26, 2017 3:11 PM
To: Wellman, Julia (DEQ)
Cc: Sharon Lawrence
Subject: DEQ #17-055F - Updated INRMP, Camp Pendleton State Military Reserve

Ms. Wellman,

The HRPDC staff has reviewed the federal consistency certification for this project (DEQ #17-055F – Updated Integrated Natural Resource Management Plan, Camp Pendleton State Military Reserve). The proposal appears to be consistent with local and regional plans and policies.

We appreciate the opportunity to review this project. If you have any questions, please let me know.

Ben

Benjamin J. McFarlane, AICP
Senior Regional Planner
Hampton Roads Planning District Commission
723 Woodlake Drive
Chesapeake, VA 23320
Phone: 757-420-8300 | Fax: 757-420-9300



All email correspondence to and from this address is subject to the Virginia Freedom of Information Act and to the Virginia Public Records Act, which may result in monitoring and disclosure to third parties, including law enforcement.