

**OTHER ALTERNATIVES CONSIDERED  
FOR THE  
MANEUVER CENTER OF EXCELLENCE  
ACTIONS AT FORT BENNING, GEORGIA**

# TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>2</b>	<b>DESCRIPTION OF THE PROPOSED ACTION .....</b>	<b>5</b>
<b>2.1</b>	<b>Action Alternatives .....</b>	<b>5</b>
<b>2.2</b>	<b>Description of Alternative B .....</b>	<b>5</b>
2.2.1.1	Maneuver Training Area Designations.....	5
2.2.1.2	Proposed Maneuver Areas and Associated Infrastructure - New .....	10
2.2.1.2.1	Northern Maneuver Area (PN 69742) (FY 2009) .....	10
2.2.1.2.2	19D/K OSUT Maneuver Area (PN 69741) (FY2009) – Reanalyzed .....	10
2.2.1.3	Southern Ranges.....	13
<b>3</b>	<b>FEDERALLY PROTECTED SPECIES CONSIDERED .....</b>	<b>14</b>
<b>3.1</b>	<b>Relict Trillium (Endangered) .....</b>	<b>16</b>
3.1.1	Biological Determination.....	16
<b>3.2</b>	<b>Michaux's Sumac (Endangered).....</b>	<b>16</b>
3.2.1	Biological Determination.....	16
<b>3.3</b>	<b>Purple Bankclimber (Threatened) .....</b>	<b>16</b>
3.3.1	Biological Determination.....	16
<b>3.4</b>	<b>Shiny-rayed Pocketbook (Endangered) .....</b>	<b>16</b>
3.4.1	Biological Determination.....	16
3.4.2	Biological Determination for Critical Habitat .....	16
<b>3.5</b>	<b>Gulf Moccasinshell (Endangered) .....</b>	<b>16</b>
3.5.1	Biological Determination.....	16
<b>3.6</b>	<b>Oval Pigtoe (Endangered).....</b>	<b>16</b>
3.6.1	Biological Determination.....	16
<b>3.7</b>	<b>Wood Stork (Endangered) .....</b>	<b>18</b>
3.7.1	Biological Determination.....	18
<b>3.8</b>	<b>Red-cockaded woodpecker (Endangered) .....</b>	<b>18</b>
3.8.1	Cluster Level Analyses .....	18
3.8.1.1	Pre- project Cluster Status and Foraging Habitat, Project Impacts and Post- project Foraging Habitat Totals.....	18
3.8.2	Group Level Analyses .....	170
3.8.3	Neighborhood Level Analyses.....	177
3.8.4	Population Level Analysis.....	177
3.8.4.1	RCW Impacts .....	177
3.8.4.2	Habitat Loss and Fragmentation.....	178
3.8.4.3	Population Recovery and Habitat Restoration.....	180
3.8.5	Recovery Unit Analysis (Jeopardy analysis) .....	183
3.8.6	Biological Determination.....	184

<b>4</b>	<b>CUMULATIVE EFFECTS .....</b>	<b>185</b>
<b>5</b>	<b>STANDARD ENVIRONMENTAL PROTOCOLS AND ONGOING CONSERVATION EFFORTS .....</b>	<b>186</b>
<b>6</b>	<b>MINIMIZATION EFFORTS.....</b>	<b>187</b>
<b>7</b>	<b>CONCLUSIONS.....</b>	<b>188</b>

## LIST OF TABLES

Table 2-1.	All projects included in the proposed Alternative B Maneuver Center of Excellence actions at Fort Benning, including reanalyzed Transformation projects .....	6-7
Table 3-1.	Federally-listed species potentially occurring in west-central Georgia .....	15
Table 3-2.	Red-cockaded woodpecker foraging habitat data using the Standard for Managed Stability (USFWS 2003a) for all partitions impacted by Alternative B of the proposed Fort Benning Maneuver Center of Excellence projects, Chattahoochee and Muscogee Counties, Georgia.....	20-21
Table 3-3.	Red-cockaded woodpecker foraging habitat data using the Recovery Standard (USFWS 2003a) for all partitions impacted by Alternative B of the proposed Fort Benning Maneuver Center of Excellence projects, Chattahoochee and Muscogee Counties, Georgia.....	22-23
Table 3-4.	Activity status of impacted red-cockaded woodpecker (RCW) clusters from 2004-2008, Alternative B, Fort Benning, Georgia.....	24-27
Table 3-5.	Direct project impacts for active red-cockaded woodpecker (RCW) clusters for Fiscal Year 2009 using the Standard for Managed Stability (SMS) (USFWS 2003a), Alternative B MCOE, Fort Benning, Georgia.....	39-43
Table 3-6.	Direct project impacts for active red-cockaded woodpecker (RCW) clusters for Fiscal Year 2010 using the Standard for Managed Stability (SMS) (USFWS 2003a), Alternative B MCOE, Fort Benning, Georgia.....	44-46
Table 3-7.	Direct project impacts for active red-cockaded woodpecker (RCW) clusters for Fiscal Year 2011 using the Standard for Managed Stability (SMS) (USFWS 2003a), Alternative B MCOE, Fort Benning, Georgia.....	47
Table 3-8.	Direct project impacts for active red-cockaded woodpecker (RCW) clusters for Fiscal Year 2012 using the Standard for Managed Stability (SMS) (USFWS 2003a), Alternative B MCOE, Fort Benning, Georgia.....	48
Table 3-9.	Red-cockaded woodpecker cavity trees impacted within active clusters impacted by Fiscal Year 2009 - 2011 Alternative B, MCOE projects, Fort Benning, Georgia.....	49-59
Table 3-10.	Red-cockaded woodpecker cavity trees impacted within inactive clusters impacted by Fiscal Year 2009 - 2012 Alternative B MCOE projects, Fort Benning, Georgia.....	60
Table 3-11.	Red-cockaded woodpecker (RCW) groups impacted directly or indirectly using the Standard for Managed Stability (USFWS 2003a) for Fort Benning MCOE projects, Alternative B, Fort Benning, Georgia.....	61-64
Table 3-12.	The number of red-cockaded woodpecker clusters requiring Incidental Takes ("Take") by the fiscal year of construction initiation, Alternative B Maneuver Center of Excellence projects, Fort Benning, Georgia. The table does not include group or neighborhood takes. ....	66-68

Table 3-13.	Post- project suitable and potentially suitable foraging habitat using the Standard for Managed Stability (USFWS 2003a) with a high risk of loblolly pine decline for red-cockaded woodpecker partitions impacted by Alternative B MCOE projects, Fort Benning, Georgia.....	69-71
Table 3-14.	Post- project ability of red-cockaded woodpecker (RCW) clusters "taken" by Alternative B Maneuver Center of Excellence projects to meet the Recovery Standard (RS) (USFWS 2003a) in the future, Fort Benning, Georgia. The table contains only those clusters taken due to loss of foraging habitat .....	72
Table 3-15.	Post- project ability of red-cockaded woodpecker (RCW) clusters not "taken" due to loss of foraging habitat by Alternative B Maneuver Center of Excellence projects to meet the Recovery Standard (RS) (USFWS 2003a) in the future, Fort Benning, Georgia .....	73
Table 3-16.	Pre- and post- project densities of red-cockaded woodpecker (RCW) clusters within 1.25 miles of clusters impacted by Alternative B MCOE projects, Fort Benning, Georgia .....	171-175
Table 3-17.	Removals and remaining acreage of all contiguous pine and pine- hardwood habitat (potential RCW habitat, current and future), Alternative B Maneuver Center of Excellence, Fort Benning, Georgia. ....	181

## LIST OF FIGURES

Figure 1-1.	General location of the Fort Benning Military Installation near Columbus, Georgia.....	2
Figure 1-2.	The No Action Alternative, comprised of the current limits of disturbance of Transformation projects not requiring reanalysis and the approved limits of disturbance for projects which are being reanalyzed in the proposed action. ....	4
Figure 2-1.	Current limits of disturbance of all Transformation projects (including projects reanalyzed in the proposed action, Alternative B), as compared to the limits of disturbance approved in the Transformation Biological Opinion (BO).....	8
Figure 2-2.	Current and proposed Heavy Maneuver Area usage, excluding surface danger zones (SDZs), impact areas and other exclusion areas as designated by Range Division, Alternative B for the Maneuver Center of Excellence, Fort Benning. ....	9
Figure 2-3.	Fiscal years 2009-2010 construction activities and operational impacts for proposed projects located in the Northern Ranges for the Maneuver Center of Excellence, Alternative B, Fort Benning, Georgia. ....	11
Figure 2-4.	Fiscal years 2009-2011 construction activities and operational impacts for proposed projects located in the Southern Ranges for the Maneuver Center of Excellence, Alternative B, Fort Benning, Georgia. ....	12
Figure 3-1.	Known Federally-listed species locations on Fort Benning and potential project impacts by the proposed Alternative B Maneuver Center of Excellence actions at Fort Benning.....	17
Figure 3-2.	Distribution of red-cockaded woodpecker (RCW) clusters including unmanaged and managed natural RCW clusters and primary and supplemental RCW recruitment clusters, Fort Benning, Georgia and Alabama. ....	19
Figure 3-3.	Fiscal years 2009-2012 construction activities and operational impacts for proposed projects located within red-cockaded woodpecker (RCW) clusters in the Cantonment Area for the Maneuver Center of Excellence, Alternative B, Fort Benning, Georgia.....	28
Figure 3-4.	Fiscal years 2009-2010 construction activities and operational impacts for proposed projects located within red-cockaded woodpecker (RCW) clusters in the Northern Ranges for the Maneuver Center of Excellence, Alternative B, Fort Benning, Georgia ....	29
Figure 3-5.	Fiscal years 2009-2011 construction activities and operational impacts for proposed projects located within red-cockaded woodpecker (RCW) clusters in the Southern Ranges for the Maneuver Center of Excellence, Alternative B, Fort Benning, Georgia ....	30
Figure 3-6.	Fiscal years 2009-2010 construction activities and operational impacts for proposed projects located in the Oscar Small Arms Range Complex for the Maneuver Center of Excellence, Alternative B, Fort Benning, Georgia. Also shown are the current locations of range projects analyzed in the Transformation Biological Assessment that are not being reanalyzed for this action .....	31

Figure 3-7.	Fiscal years 2009-2010 construction activities and operational impacts for proposed projects located in the Northeastern Ranges for the Maneuver Center of Excellence, Alternative B, Fort Benning, Georgia.....	32
Figure 3-8.	Fiscal years 2009-2010 construction activities and operational impacts for proposed projects located within red-cockaded woodpecker (RCW) clusters in the Southern Training Area for the Maneuver Center of Excellence, Alternative B, Fort Benning, Georgia .....	33
Figure 3-9.	Pre- and post- project density of red-cockaded woodpecker (RCW) clusters as a result of Cantonment projects (FY 2009 - 12) and small ranges and associated beaten areas for Alternative B at Fort Benning, Georgia.....	34
Figure 3-10.	Pre- and post- project density of red-cockaded woodpecker (RCW) clusters as a result of Installation Training Area Roads and Northern Ranges, Alternative B, Fort Benning, Georgia. ....	35
Figure 3-11.	Pre- and post- project density of red-cockaded woodpecker (RCW) clusters as a result of Installation Training Area Roads and Southern Maneuver Area Training Impacts, Alternative B, Fort Benning, Georgia. ....	36
Figure 3-12.	Pre- and post- project density of red-cockaded woodpecker (RCW) clusters as a result of Installation Training Area Roads and the Multipurpose Training Range and associated beaten area, Alternative B, Fort Benning, Georgia.....	37
Figure 3-13.	Pre- and post- project density of red-cockaded woodpecker (RCW) clusters as a result of the Multipurpose Machine Gun Ranges and associated beaten areas (PN 68733, PN 65070) for Alternative B at Fort Benning, Georgia.....	38
Figure 3-14.	(a.) Post-project status of red-cockaded woodpecker (RCW) clusters after cluster, group (1.25 mile radius) and neighborhood (2.57 radius) analyses and (b.) post-project density of RCW clusters, Alternative B, Fort Benning, Georgia.....	176
Figure 3-15.	Red-cockaded woodpecker (RCW) partitions remaining post-project for Alternative B and contiguous pine and pine-hardwood stands (potential RCW foraging habitat) by age and species, Fort Benning.....	182

# **OTHER ALTERNATIVES CONSIDERED FOR THE MANEUVER CENTER OF EXCELLENCE ACTIONS AT FORT BENNING, GEORGIA**

## **1 INTRODUCTION**

Fort Benning Military Installation (Installation or Fort Benning), located in Chattahoochee and Muscogee Counties, Georgia (GA) and Russell County, Alabama (AL) (Figure 1-1), is currently undergoing major changes in its organizational structure. The actions associated with the changes are referred to in this document as Fort Benning “Transformation.” Environmental impacts from Fort Benning Transformation were evaluated in a Biological Assessment (USACE 2007b), United States (U.S.) Fish and Wildlife Service (USFWS) non-jeopardy Biological Opinion (BO) (USFWS 2007a) and a Final Environmental Impact Statement (FEIS) (USACE 2007c). Since then, some new construction and training needs have been identified and additional projects are required. These new projects and 19 Transformation projects that require reanalysis are collectively referred to as the Maneuver Center of Excellence (MCOE) actions.

Two action alternatives (Alternative A and B) were identified that would meet the purpose and need of the proposed action. The Army has identified Alternative A as its preferred alternative. This Appendix analyzes the impacts of the Alternative B actions on species listed as Threatened or Endangered, or proposed for such listing, by the USFWS pursuant to Section 7 of the Endangered Species Act (ESA), as amended. The No Action Alternative is described below.

In order to minimize repetition in this Appendix, refer to the main body of the MCOE Biological Assessment for discussions on the Background/ Baseline Mission and Operations, Action Area/ Affected Environment, Methodology and Standard Environmental Protocols, Ongoing Conservation Efforts and References Cited.

There have been some minor changes to project impacts analyzed in the Transformation Biological Assessment. These changes have been, or are likely to be, approved via the Installation’s NEPA process and, where necessary, informal consultation with USFWS. Thus, the post-project conditions presented in the Transformation Biological Assessment and BO no

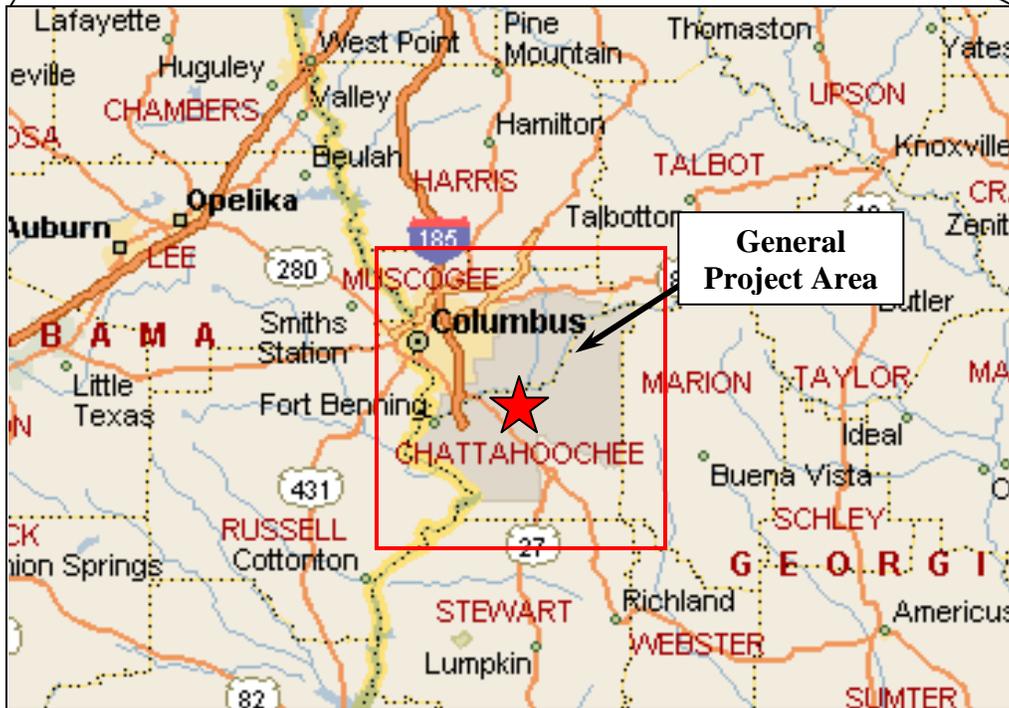
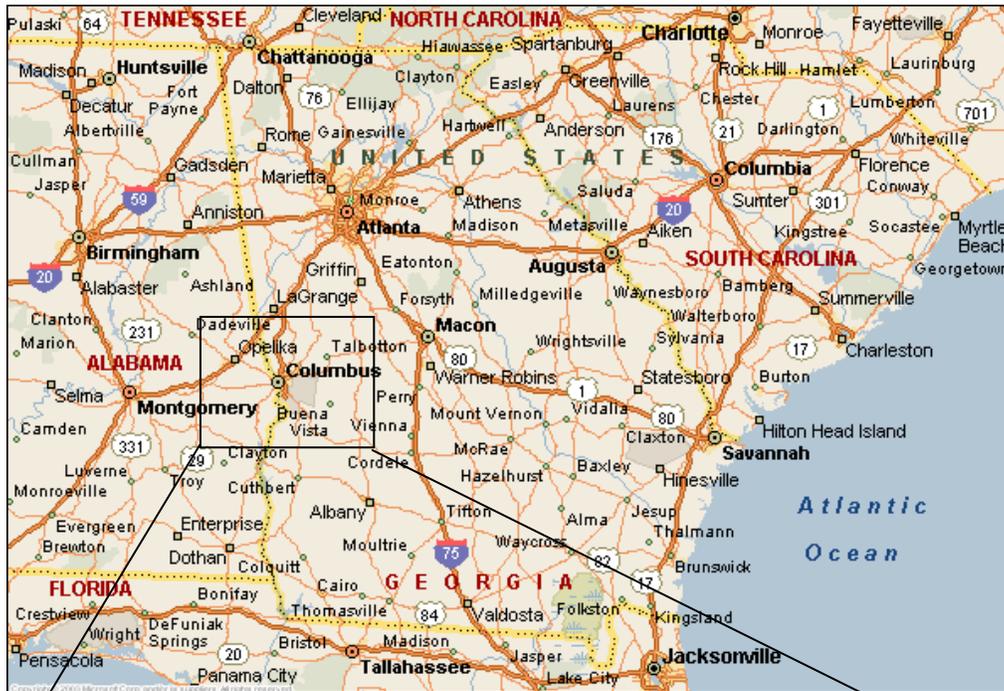


Figure 1-1. General location of the Fort Benning Military Installation near Columbus, Georgia.

longer represents a true “starting point” for analyses for the proposed action. The No Action Alternative is comprised of the current limits of disturbance for the Transformation projects that are not being reanalyzed in this document, along with the original limits of disturbance approved in the BO for Transformation projects being reanalyzed in the proposed action (Figure 1-2). Instead of using the updated location, the 17 reanalyzed projects would remain at their previously approved location under the No Action Alternative.

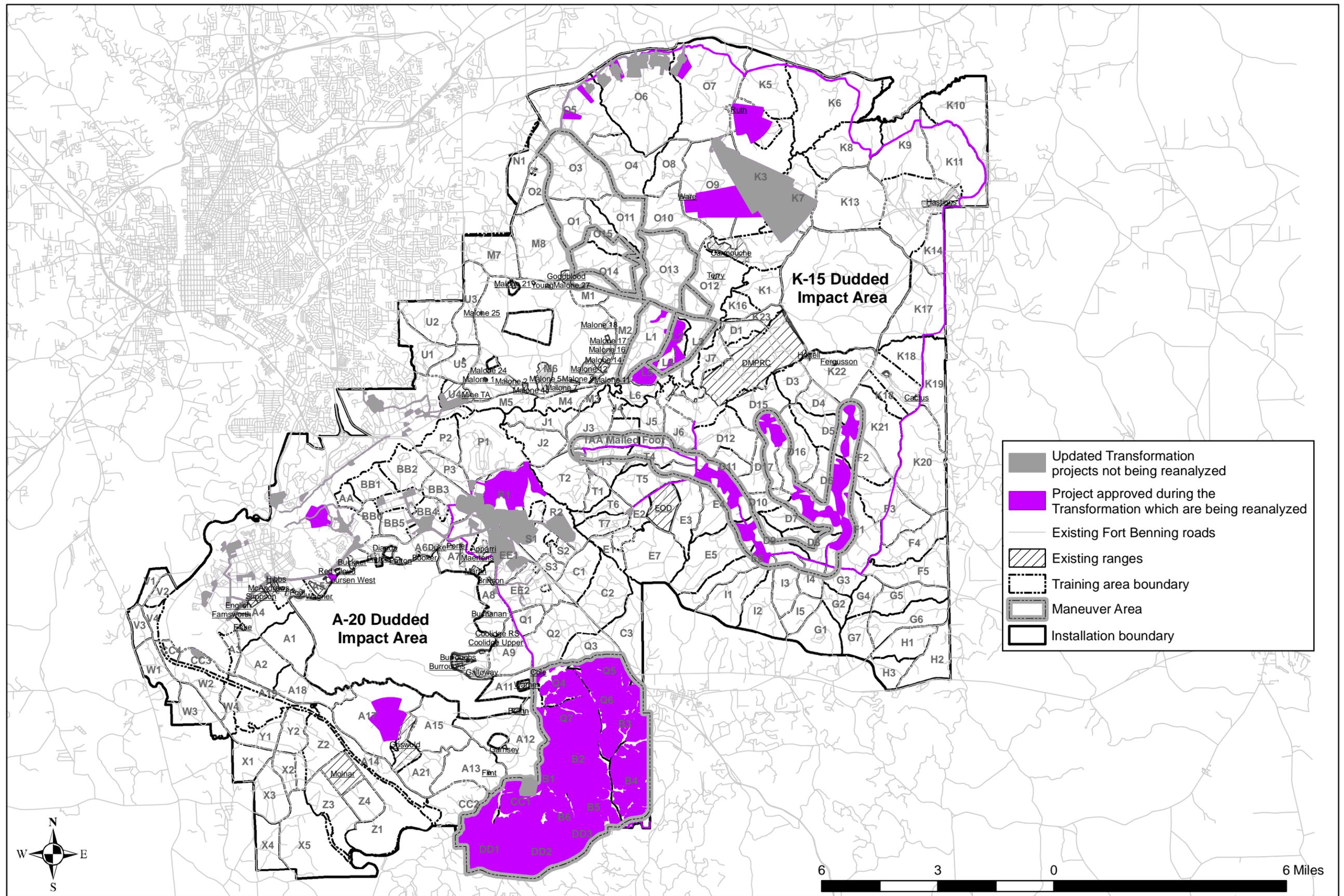


Figure 1-2. The No Action Alternative, comprised of the current limits of disturbance of Transformation projects not requiring reanalysis and the approved limits of disturbance for projects which are being reanalyzed in the proposed action.

## **2 DESCRIPTION OF THE PROPOSED ACTION**

The following sections describe the purpose and need and project descriptions of proposed projects that are only associated with Alternative B. Projects that are the same for Alternative A and B are described Section 4 of the MCOE Biological Assessment. The entire Alternative B action includes the projects described below, the identical projects in Alternative A, the ongoing conservation efforts described in Section 8 and minimization efforts described in Section 9 of the MCOE BA.

### **2.1 ACTION ALTERNATIVES**

The differences between Alternatives A and B are the location of 1 maneuver training course (termed the “19D/K OSUT Maneuver Area”) (Project Number (PN) 69741) and 2 additional ranges in Alternative B: a Multi-Purpose Machine Gun Range (MPMG1) (PN 65070 and 68733) and an Automated Combat Pistol Qualification Course (CP/ MPQC2) (PN 65079) (Table 2-1).

### **2.2 DESCRIPTION OF ALTERNATIVE B**

Projects in the proposed Alternative B MCOE action, including reanalyzed Transformation projects are identified in Table 2-1 and Figure 2-1. Refer to Sections 4.4 - 4.7 of the MCOE Biological Assessment for descriptions of projects that are identical under Alternatives A and B. Projects that are unique to Alternative B are discussed below.

#### **2.2.1.1 Maneuver Training Area Designations**

The total amount and types of maneuver training courses conducted (described in Section 4.7 of the MCOE Biological Assessment) would be the same under both alternatives, however, under Alternative B, the total area designated as heavy maneuver land would increase by approximately 1,765 acres due to the location of 19D/K OSUT Maneuver Area southwest of Highway (Hwy.) 27-280 that is currently designated as light maneuver (Figure 2-2). Heavy maneuver lands north of Hwy. 27-280 would likewise be used to a lesser extent under Alternative B.

Table 2-1. All projects included in the proposed Alternative B Maneuver Center of Excellence actions at Fort Benning, including reanalyzed Transformation projects.

Project Driver	Project Number	Project Title	Analyzed for Transformation (Y/N)	Fiscal Year- (Start Date)	Fiscal Year- (Date Operational)	Area- Footprint, (Acres)	Area- Limits of Construction (includes range access roads) (Acres)	Area- Ordnance or Maneuver- Impacted Areas (Acres)	Maximum Acres of Pine Impacted	Location
AP3	62953	Rail Loading Facility Expansion	Y	12	----	----	133.71	----	28.05	Harmony Church
BRAC	64797	Tracked Vehicle Drivers Course Access Road	Y	09	10	----	18.15	----	9.43	Harmony Church
BRAC	65034	Fire and Movement Range 3 (FM3)	Y	10	11	10.34	43.87	35.86	50.47	Oscar Small Arms
BRAC	65035	Basic 10M-25M Firing Range 1 (Z1)	Y	09	11	0.79	23.01	3.40	23.32	Oscar Small Arms
BRAC	65036	Basic 10M-25M Firing Range 2 (Z2)	Y	09	11	0.79	20.90	27.74	28.30	Oscar Small Arms
BRAC	65039	Basic 10M-25M Firing Range 5 (Z5)	Y	09	11	0.79	22.02	0.20	19.12	Oscar Small Arms
BRAC	65070	Multipurpose Machine Gun Range 2 (MPMG2)	Y	11	12	238.19	included with PN 68733	550.97	388.33	Southern ranges
BRAC	65079	Automated Combat Pistol Qualification Course (CP/MPQC2)	Y	10	11	1.16	26.07	9.45	25.45	Southern ranges
BRAC	65246	Recreation Centers	Y	12	----	----	28.28	----	3.01	Harmony Church, Sand Hill
BRAC	65248	Physical Fitness Center, Harmony Church	Y	12	----	----	38.81	----	0.76	Harmony Church
BRAC	65383	Stationary Tank Range (ST2)	Y	09	11	294.93	193.00	1,187.88	562.63	Northern ranges
BRAC	65554	Construct Training Area Roads Paved	Y	09	11	----	889.93	----	580.16	Throughout
BRAC	65557	Repair Existing Training Area Roads, Phase 1	Y	10	----	----	1,193.55	----	720.76	Throughout
BRAC	69358	Range Access Road - Good Hope Maneuver Training Area	(Y)	09	11	----	162.01	----	99.50	Good Hope
BRAC	69668	Good Hope Training Area Infrastructure	*Y	09	11	----	1676.83	10,019.07	4,661.58	Good Hope
BRAC	69741	19D/K OSUT Training Area Infrastructure	(Y)	09	11	----	706.58	----	490.42	Southern ranges
BRAC	69743	Southern Training Area Infrastructure	*Y	09	11	----	577.22	4,086.40	3,035.86	Northern ranges
BRAC	70235/ 65081/ 67461	Hospital Replacement	*Y	**08	----	----	137.36	----	2.75	Main Post
BRAC	72017	Vehicle Recovery Course (Ground Mobility Division)	*Y	09	11	----	514.37	----	277.26	Harmony Church
BRAC	64551	Multipurpose Training Range (MPTR)	N	09	----	983.93	488.02	1,382.88	875.88	Northern ranges
BRAC	65033	Fire and Movement Range (FM2)	N	09	11	10.34	71.43	32.51	89.07	Oscar Small Arms Complex
BRAC	65043	Modified Record Fire Range (MRF 1)	N	09	11	23.72	46.76	32.73	58.88	Oscar Small Arms
BRAC	65049	Modified Record Fire Range (MRF 7)	N	09	11	23.72	48.68	37.53	79.53	Oscar Small Arms
BRAC	65078	Anti-Armor Tracking & Live Fire Complex (LA-AR1)	N	09	----	22.52	57.31	6.66	42.95	Southern ranges
BRAC	65250	Maneuver Battle Lab	N	10	----	----	26.90	----	0.00	Main Post
BRAC	67457	Infrastructure Support, Incr 2. Includes security fence and direct buried cable	N	09	----	----	114.80	----	56.81	Northern ranges and Harmony Church
GTA	68733	Multipurpose Machine Gun Range 1 (MPMG1)	N	10	11	238.19	970.13	531.82	1,215.05	Southern ranges

BRAC Base Realignment and Closure  
 GWOT Global War on Terror  
 GTA Grow the Army  
 GDPR Global Defense Posture Realignment  
 AP3 Army Power Projection Platform

\*Y Project analyzed under a different PN or no PN in Transformation Biological Assessment  
 (Y) Project combined with other PNs in Transformation Biological Assessment  
 Location of project is different in Alternative A than in Alternative B  
 Project proposed in Alternative B only  
 \*\* Project funded in FY08, however, construction will be ≥ FY 09

Table 2-1 (cont.). All projects included in the proposed Alternative B Maneuver Center of Excellence actions at Fort Benning, including reanalyzed Transformation projects.

Project Driver	Project Number	Project Title	Analyzed for Transformation (Y/N)	Fiscal Year- (Start Date)	Fiscal Year- (Date Operational)	Area- Footprint, (Acres)	Area- Limits of Construction (Acres)	Area- Ordnance or Maneuver- Impacted Areas (Acres)	Maximum Acres of Pine Impacted	Location
GTA	69147	Trainee Complex Upgrade	N	09	----	----	81.36	----	4.13	Sand Hill
GTA	69150	Classrooms & Dual Battalion Dining Facility	N	10	----	----	65.74	----	0.60	Sand Hill
GTA	69151	Dining Facility to Support AST Training	N	10	----	----	10.14	----		Main Post
GDPR	69406	Unit Maintenance Facilities	N	09	----	----	50.54	----	1.89	Main Post
BRAC	69742	Northern Training Area Infrastructure	N	09	11	----	240.23	----	175.04	Northern ranges
GTA	69745/ 72322/ 72324	Training Barracks Complex, Phases 1, 2 and 3	N	10, 11 and 12	----	----	130.80	----	71.19	Sand Hill
GWOT	69999	Warrior in Transition Complex	N	09	----	----	20.84	----	0.00	Main Post
GTA	70026/ 72456	Classrooms with Battalion Dining Facilities, Phases 1 and 2	N	10, 11	----	----	50.19	----	0.00	Sand Hill
GTA	70027/ 72457	Classrooms with Battalion Dining Facilities, Phases 1 and 2	N	10, 11	----	----	72.24	----	4.05	Sand Hill
BRAC	71065	Troop Store - AAFES (NAF)	N	09	----	----	5.64	----	0.00	Harmony Church
BRAC	71473	Water Treatment Plant Upgrade and Expansion	N	10	----	----	46.90	----	0.00	Main Post
BRAC	71620	Dental Clinic Addition	N	10	----	----	9.99	----	0.00	Main Post

BRAC Base Realignment and Closure  
 GWOT Global War on Terror  
 GTA Grow the Army  
 GDPR Global Defense Posture Realignment  
 AP3 Army Power Projection Platform

\*Y Project analyzed under a different PN or no PN in Transformation Biological Assessment  
 (Y) Project combined with other PNs in Transformation Biological Assessment  
 Location of project is different in Alternative A than in Alternative B  
 Project proposed in Alternative B only  
 \*\* Project funded in FY08, however, construction will be ≥ FY 09

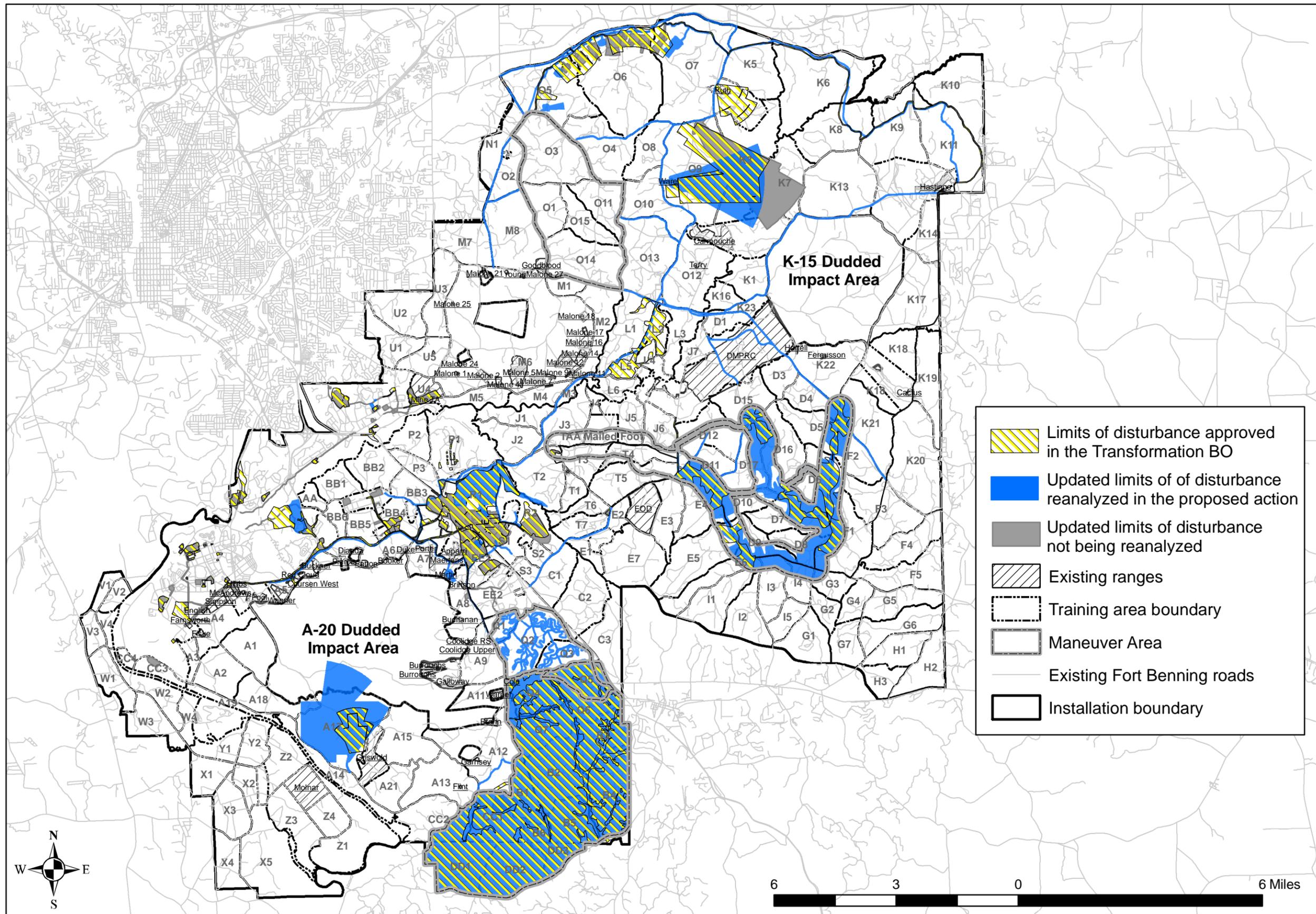


Figure 2-1. Current limits of disturbance of all Transformation projects (including projects reanalyzed in the proposed action, Alternative B), as compared to the limits of disturbance approved in the Transformation Biological Opinion (BO).

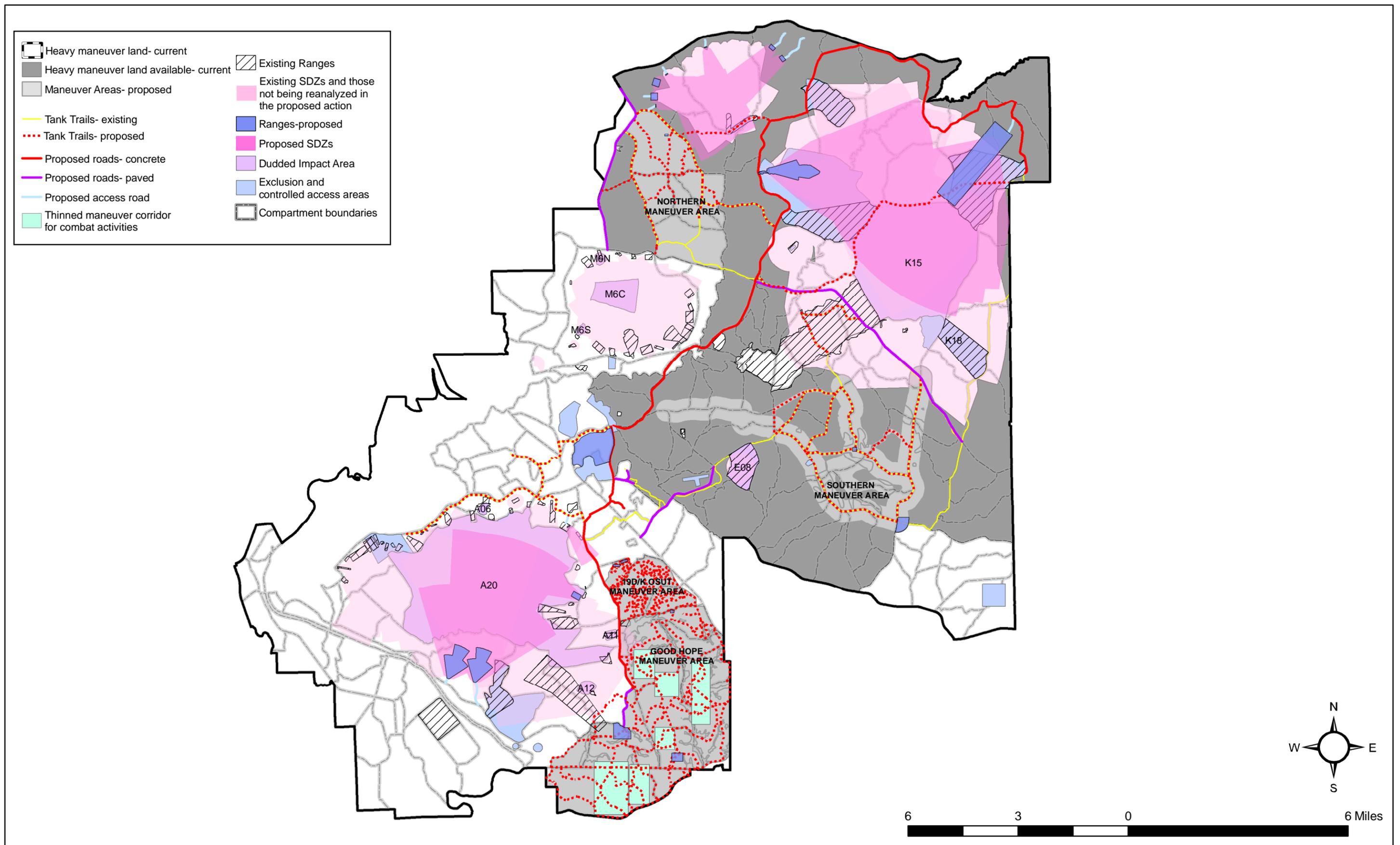


Figure 2-2. Current and proposed Heavy Maneuver Area usage, excluding surface danger zones (SDZs), impact areas and other exclusion areas as designated by Range Division, **Alternative B** for the Maneuver Center of Excellence, Fort Benning.

### **2.2.1.2 Proposed Maneuver Areas and Associated Infrastructure - New**

Under the proposed action, the training courses would be conducted in the Northern Maneuver Area, the 19D/K OSUT Maneuver Area, the Southern Maneuver Area and the Good Hope Maneuver Area. For Alternative B, 19D/K OSUT Maneuver Area would be located just north of the Good Hope Maneuver Area in Training Compartments Q1, 2, 3 and 5 (Figures 2-2, 2-3 and 2-4).

#### **2.2.1.2.1 Northern Maneuver Area (PN 69742) (FY 2009)**

The entire Northern Maneuver Area would be used by the USAARMS and 3rd Bde training, for off-road heavy maneuver training. The area totals 4,677 acres and would encompass Compartments O1, O3, O11, O14 and O15. Off-road heavy maneuver training would only occur within 25 ft. of roads and trails or else would require approval through the Fort Benning NEPA process (Figure 2-3).

Roads: As with all proposed roads, impacts were assessed at 96 ft. from centerline, however, the road width would be approximately 30 ft. Approximately 0.43 mile of new roads and 9.92 miles of road upgrades are proposed in this area; this construction would impact 240.23 acres (Table 2-1). Currently, 32 water crossings are planned within the Northern Maneuver Area.

Support Areas: An approximately 4-acre support area would be constructed in Compartment O3 (Figure 2-3).

Pine Habitat Loss: Construction projects and off-road heavy maneuver (adjacent to roads) in the Northern Maneuver Area could result in the loss of up to 175.04 acres of pine habitat over time (Table 2-1).

#### **2.2.1.2.2 19D/K OSUT Maneuver Area (PN 69741) (FY2009) – Reanalyzed**

The 19D and 19K OSUT courses would be conducted in an area termed the 19D/K OSUT Maneuver Area. The 19D/K OSUT Maneuver Area would be located just north of the Good Hope Maneuver Area and would be comprised of Compartments Q1-3 and 5, (Figure 2-4). The northern portion of Q1 would be used as a Tactical Assembly Area (TAA) hub site containing several buildings. This area would be used for 24-hour command and control and

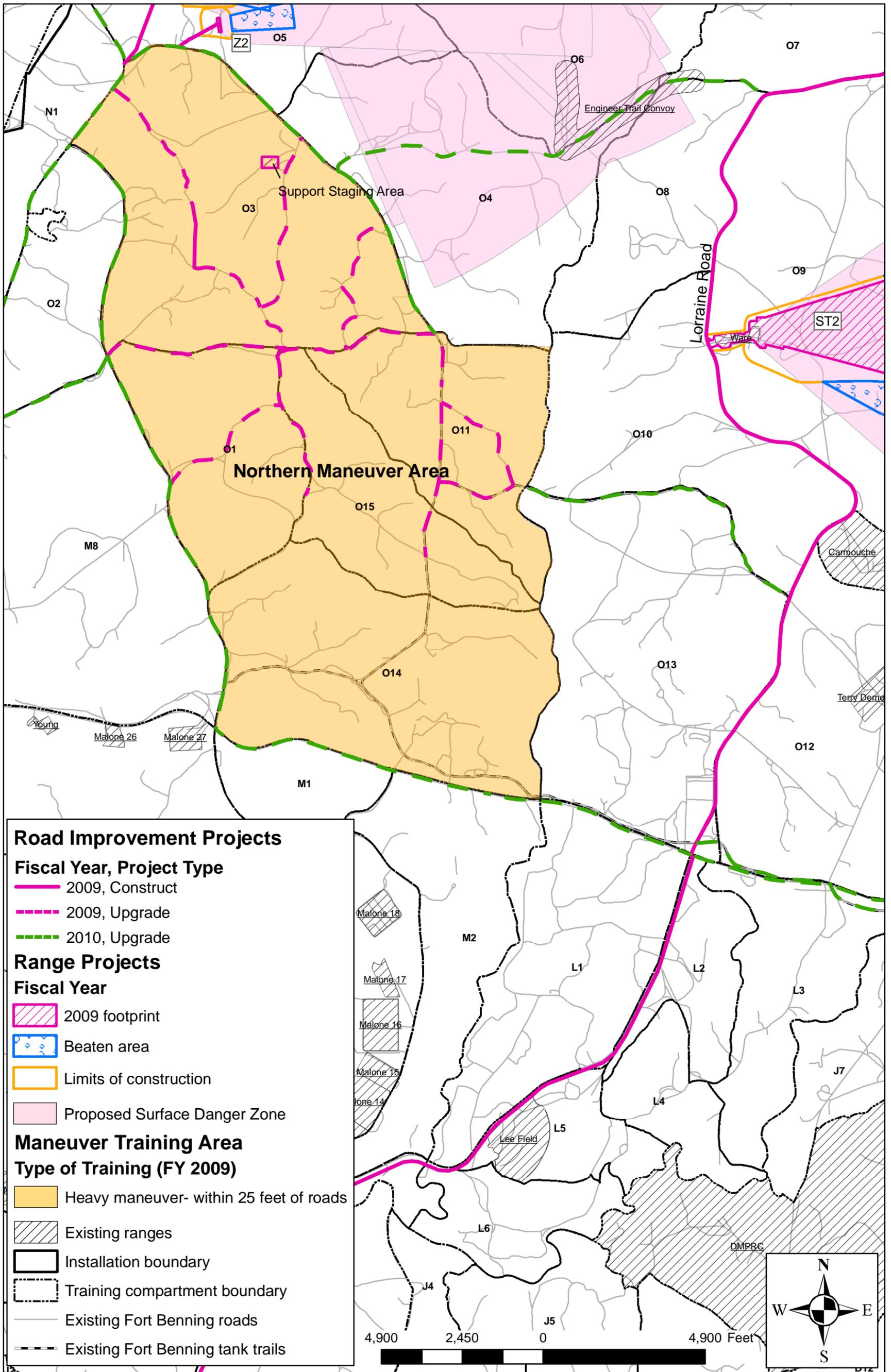


Figure 2-3. Fiscal years 2009-2010 construction activities and operational impacts for proposed projects located in the Northern Ranges for the Maneuver Center of Excellence, **Alternative B**, Fort Benning, Georgia.

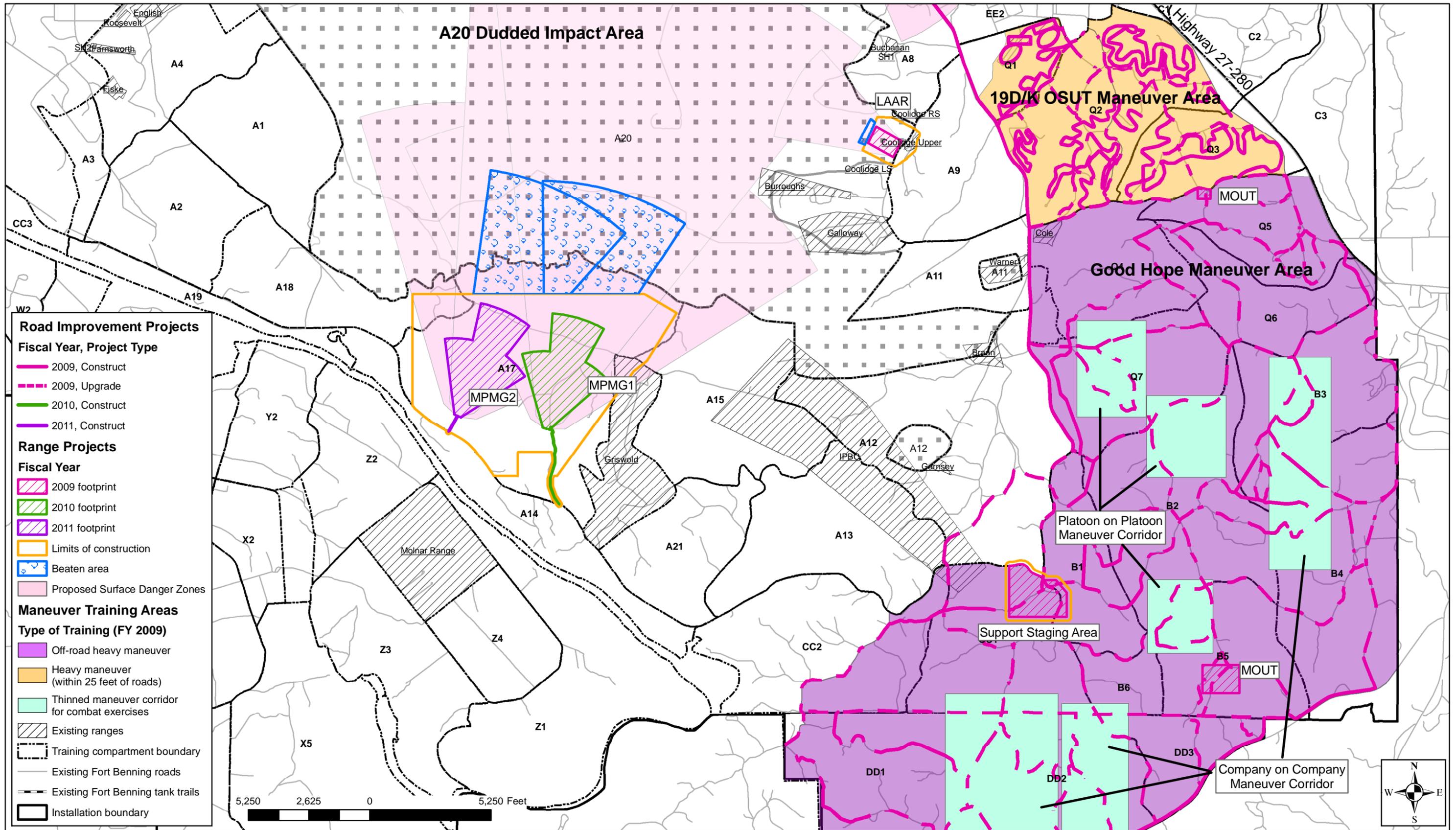


Figure 2-4. Fiscal years 2009-2011 construction activities and operational impacts for proposed projects located in the Southern Ranges for the Maneuver Center of Excellence, **Alternative B**, Fort Benning, Georgia.

would serve as an assembly area for up to 240 Soldiers at a time. Compartment Q5 would be used for dismounted combat orienteering and urban orienteering in conjunction with the Basic Officer Leader Course (BOLC) III being taught in the Good Hope Maneuver Area. An urban site being constructed for the BOLC III course would be utilized for urban combat orienteering (Figure 2-4). Since these are introductory-level courses, all off-road heavy maneuvers would be directed by an instructor and would be within 25 ft. of roads and trails.

Roads: Approximately 19.83 miles of new road construction and 12.38 miles of road upgrades are proposed, totaling 706.58 acres (Table 2-1). Locations of water crossings are less definite, but at least 7 would be needed.

Pine Habitat Loss: Construction projects and off-road heavy maneuver (adjacent to roads) in the 19D/K OSUT Maneuver Area could result in the loss of up to 490.42 acres of pine habitat over time (Table 2-1).

### **2.2.1.3 Southern Ranges**

Two Multi-Purpose Machine Gun ranges MPMG1 (PN 68733) (FY 2010) and MPMG2 (PN 65070) (FY 2011) are a component of Alternative B. The MPMG1 is located in Compartment A17 in the northern portion of the Griswold Range (Figure 2-4). The MPMG2 is located in Compartment A17 west of MPMG1 and south of the A20 Dudded Impact Area (Figure 2-4). The limits of construction for both ranges were combined and were analyzed for FY 2010. The beaten areas were analyzed based on the fiscal year the ranges will become operational (FY 2011 and FY 2012, respectively).. The range footprints would be 238.19 acres and the beaten areas and range access roads would be 970.13 acres (Table 2-1, Figure 2-4).

These ranges would be used by 3rd ID/ 3rd Bde and the USAARMS to train and test individual Soldiers on the skills necessary to identify, engage and defeat stationary infantry targets for day/ night qualification requirements. These ranges would contain stationary infantry and armor targets in 10 firing lanes. Targets would be at 3,280 ft. (1,000 m) and 4,920 ft. (1,500 m) for M60 and 0.50 caliber weapons, respectively, and the footprints would be 100% cleared.

An Automated Combat Pistol/ MP Firearm Qualification Complex (CP/MPQC) (PN 65079) (FY 2010) would be located at the Martin Range, on the northeast side of the A20 Impact Area. The footprint, limits of construction and beaten area would be 1.16, 26.07 and 9.45 acres, respectively (Table 2-1 and Figure 2-4).

### 3 FEDERALLY PROTECTED SPECIES CONSIDERED

This Biological Assessment evaluates the potential impacts of Alternative B MCOE actions on species listed as Threatened or Endangered, or proposed for such listing, by the USFWS pursuant to Section 7 of the ESA, as amended (Table 3-1) which occur on Fort Benning or have been recorded in the surrounding region. The subject species are relict trillium (*Trillium reliquum*), Michaux's sumac (*Rhus michauxii*), purple bankclimber mussel (*Elliptoideus sloatianus*), shiny-rayed pocketbook (*Lampsilis subangulata*), gulf moccasinshell (*Medionidus penicillatus*), oval pigtoe (*Pleurobema pyriforme*), American alligator, wood stork and the RCW. Also, as of 15 November 2007, there is designated Critical Habitat for the shiny-rayed pocketbook on Fort Benning along Uchee Creek in Russell County, Alabama (AL) (*Federal Register*, 50 CFR Part 17).

The alligator is designated as Similarity of Appearance to a Threatened Taxon throughout its range under provisions of the ESA, as amended (USFWS 1987), therefore potential project impacts to the alligator were not assessed (52 FR 107). Potential impacts to bald eagles (*Haliaeetus leucocephalus*) were also not assessed for the proposed action, as they are no longer protected under the Endangered Species Act (see Section 6 of MCOE Biological Assessment).

Potential impacts to Federal species of concern and State-listed species, including the gopher tortoise (*Gopherus polyphemus*), would be addressed in the Environmental Impact Statement for this project.

In determining the overall effect to Federally-listed species, the Installation considered direct, indirect and cumulative effects. The USFWS Consultation Handbook (USFWS and NMFS 1998) defines **direct effects** as “the direct or immediate effects of the project on the species or its habitat” (e.g., removal of a RCW cavity tree or foraging habitat). **Indirect effects** are “caused by or result from the proposed action, are later in time and are reasonably certain to occur” (e.g., delayed loss of RCW foraging habitat resulting from soil disturbance) (USFWS and NMFS 1998). Potential direct or indirect effects of the Alternative B projects are described below. Cumulative effects are assessed in Section 7 of the MCOE Biological Assessment document.

Project impacts from Alternatives A and B are expected to be identical for relict trillium, Michaux's sumac, purple bankclimber mussel, shiny-rayed pocketbook, gulf moccasinshell, oval

Table 3-1. Federally-listed species potentially occurring in west-central Georgia.

Scientific Name	Common Name	Federal Status	State Status
<b>PLANTS</b>			
<i>Rhus michauxii</i>	Michaux's sumac	E	E
<i>Trillium reliquum</i>	relict trillium	E	E
<b>BIRDS</b>			
<i>Haliaeetus leucocephalus</i>	bald eagle	Delisted August 2007	T
<i>Mycteria americana</i>	wood stork	E	E
<i>Picoides borealis</i>	red-cockaded woodpecker	E	E
<b>REPTILES</b>			
<i>Alligator mississippiensis</i>	American alligator	T/SA	
<b>MUSSELS</b>			
<i>Elliptoideus sloatianus</i>	purple bankclimber	E	E
<i>Lampsilis subangulata</i>	shiny-rayed pocketbook	E, CH	E
<i>Medionidus penicillatus</i>	gulf moccasinshell	E	E
<i>Pleurobema pyriforme</i>	oval pigtoe	E	E

Key: E = Endangered  
T = Threatened  
T/SA = Threatened/ Similarity of Appearance  
CH = Critical Habitat designated on Fort Benning

Sources: USFWS 2008; GA DNR 2008; 15 November 2007 *Federal Register*, 50 CFR Part 17.

pigtoe and the wood stork. In order to minimize repetition, refer to the MCOE BA for the discussion on the biology, status within the proposed action area, survey results and potential project impacts of these species. Only the Biological Determination is listed below for these species. Where Alternative B project impacts differ from the Alternative A Biological Assessment (eagle, American alligator and the RCW), the potential project impacts and the Biological Determination are listed.

See Figure 3-1 for known locations of federally-listed species on Fort Benning and the potential project impacts from Alternative B.

### **3.1 RELICT TRILLIUM (ENDANGERED)**

#### **3.1.1 BIOLOGICAL DETERMINATION**

**May Affect, Likely to Adversely Affect**

### **3.2 MICHAUX'S SUMAC (ENDANGERED)**

#### **3.2.1 BIOLOGICAL DETERMINATION**

**No Effect**

### **3.3 PURPLE BANKCLIMBER (THREATENED)**

#### **3.3.1 BIOLOGICAL DETERMINATION**

**No Effect**

### **3.4 SHINY-RAYED POCKETBOOK (ENDANGERED)**

#### **3.4.1 BIOLOGICAL DETERMINATION**

**No Effect**

#### **3.4.2 BIOLOGICAL DETERMINATION FOR CRITICAL HABITAT**

**No Effect**

### **3.5 GULF MOCCASINSHELL (ENDANGERED)**

#### **3.5.1 BIOLOGICAL DETERMINATION**

**No Effect**

### **3.6 OVAL PIGTOE (ENDANGERED)**

#### **3.6.1 BIOLOGICAL DETERMINATION**

**No Effect**

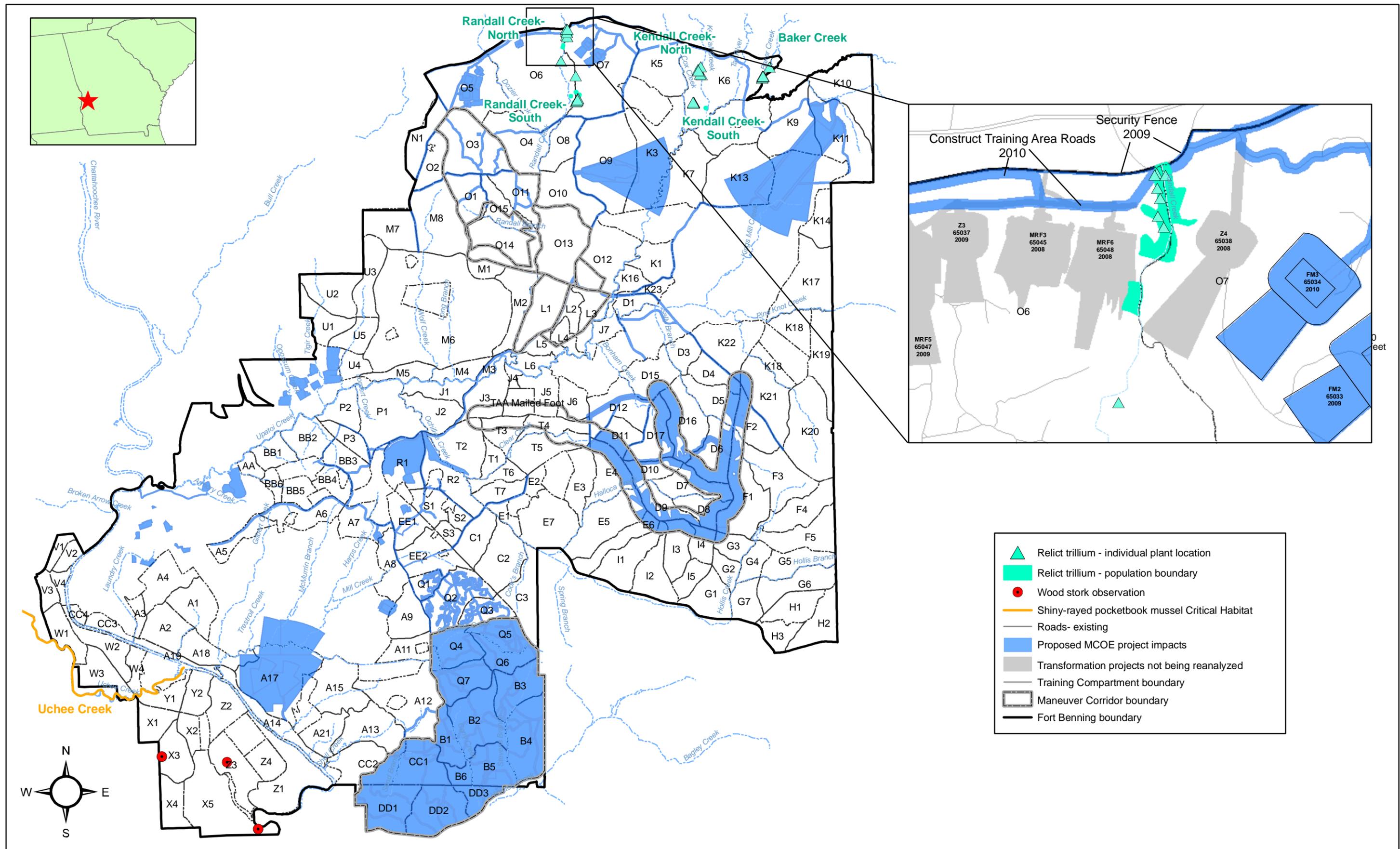


Figure 3-1. Known Federally-listed species locations on Fort Benning and potential project impacts from the proposed Alternative B Maneuver Center of Excellence actions at Fort Benning .

### **3.7 WOOD STORK (ENDANGERED)**

#### **3.7.1 BIOLOGICAL DETERMINATION**

**No Effect**

### **3.8 RED-COCKADED WOODPECKER (ENDANGERED)**

Fort Benning's RCW population is dispersed over most of the Installation, with the exception that there are no active clusters located in the AL portion (Figure 3-2).

#### **3.8.1 CLUSTER LEVEL ANALYSES**

##### **3.8.1.1 Pre- project Cluster Status and Foraging Habitat, Project Impacts and Post- project Foraging Habitat Totals**

RCW cavity trees and/ or foraging habitat would be impacted in 124 active and 12 inactive RCW clusters as a result of Alternative B 2009-2012 MCOE projects (Tables 3-2 and 3-3 and Appendices G, H and I). In 2008, 122 of these clusters contained PBGs, 1 contained a solitary male and 1 site was captured (Table 3-4).

FHAs were completed for 123 active clusters (project impacts to 1 active cluster were in non-contiguous habitat and an FHA was not conducted). Pre- project, 35 of the 122 analyzed active clusters did not meet the SMS and 121 clusters did not meet the RS. Data for pre- project cluster status and foraging habitat are presented in Tables 3-2 – 3-4, Figures 3-3 - 3-13 and Appendices H and I.

Impacts of projects are summarized below by the fiscal year of construction initiation. Projects which impact RCW partitions are presented for the 4 cantonment areas (Harmony Church, Kelley Hill, Main Post and Sand Hill), 3 range areas northeast ("North") and southwest ("South") of Hwy. 27 - 280, the Northern Maneuver Area and the Southern Maneuver Area. Data for the following project impacts discussion are presented in Tables 3-2, 3-3, 3-5 – 3-11, Figures 3-3 - 3-13 and Appendices H and I.

Fifty-eight of the 123 active RCW clusters did not meet the SMS post- project and would be directly "taken" by the Alternative B Transformation projects. Forty clusters would be "taken" by loss of foraging habitat only, 18 clusters would be taken by both loss of foraging habitat and cavity trees. One additional cluster would be taken only as a result of cavity tree removals. One hundred and twenty-two clusters did not meet the RS post- project.

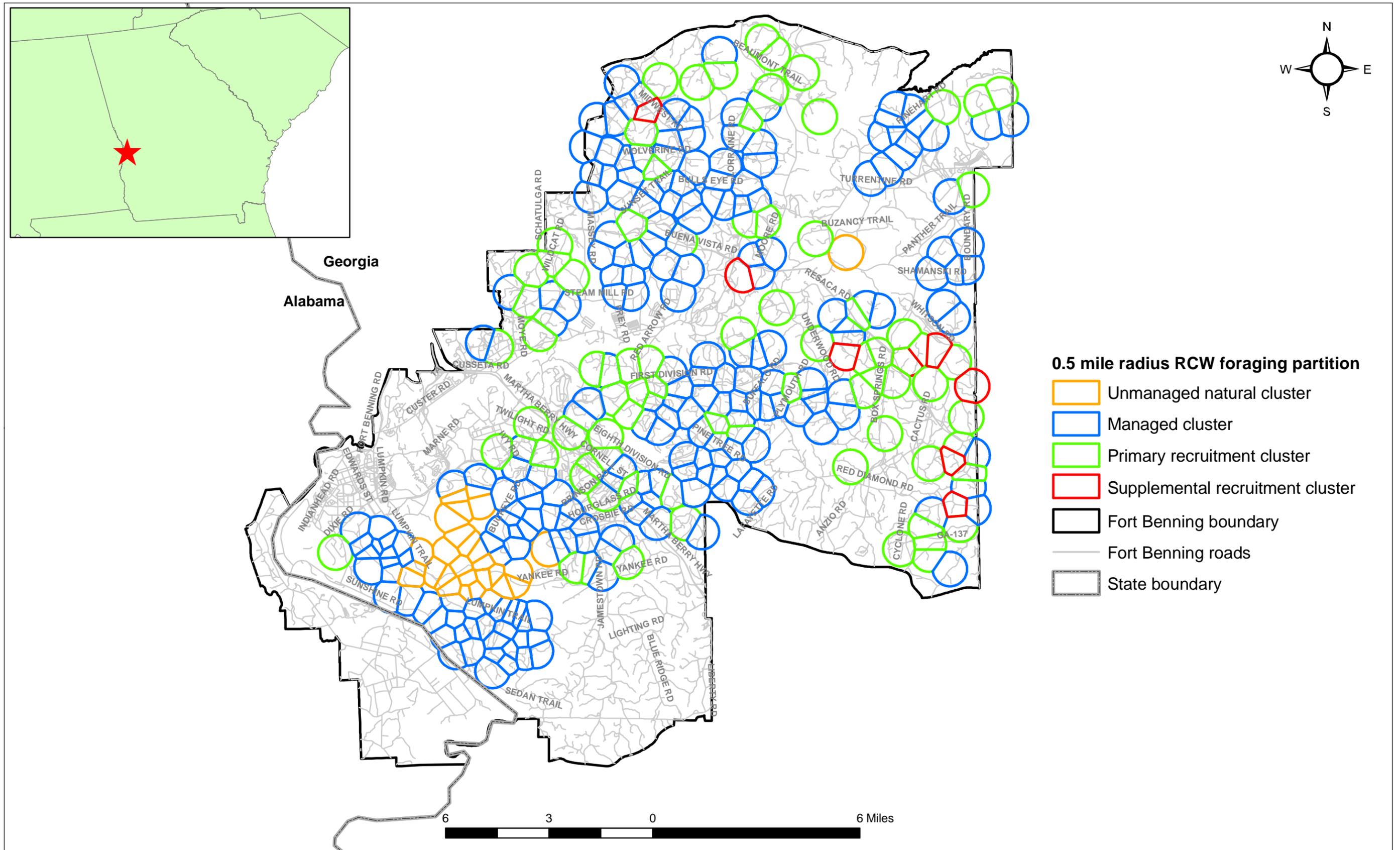


Figure 3-2. Distribution of red-cockaded woodpecker (RCW) clusters including unmanaged and managed natural RCW clusters and primary and supplemental RCW recruitment clusters, Fort Benning, Georgia and Alabama.

Table 3-2. Red-cockaded woodpecker foraging habitat data using the **Standard for Managed Stability** (USFWS 2003a) for all partitions impacted by **Alternative B** of the proposed Fort Benning Maneuver Center of Excellence projects, Chattahoochee and Muscogee Counties, Georgia.

Cluster	Pre- Project Foraging Habitat Totals								Project Removals						Post- Project Foraging Habitat Totals													
	Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Forested Acreage (within A20 Impact Area)	Future Potential Acreage	Future Potential BA	Suitable, Potentially Suitable and Forested Acreage	Suitable + Potentially Suitable BA	Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Forested Acreage (within A20 Impact Area)	Future Potential Acreage	Future Potential BA	Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Forested Acreage (within A20 Impact Area) Removed	Future Potential Acreage	Future Potential BA	Total Suitable + Potentially Suitable Acreage	Total Suitable + Potentially Suitable BA	Total Manageable Acres	Deficient Pre-project?	Deficient Post-project?
A06-01	153.64	7,067.44	0.00	0.00	35.23	33.72	734.22	188.87	7,067.44	1.79	82.34	0.00	0.00	0.00	0.63	14.43	151.85	6,985.10	0.00	0.00	35.23	33.09	719.79	187.08	6,985.10	220.17	N	N
A08-03	97.79	4,009.39	0.00	0.00	17.33	2.00	51.00	115.13	4,009.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	97.79	4,009.39	0.00	0.00	11.59	2.00	51.00	109.39	4,009.39	111.39	N	N
A08-04*	27.11	1,111.51	0.00	0.00	154.79	0.00	0.00	181.90	1,111.51	0.00	0.00	0.00	0.00	6.96	0.00	0.00	27.11	1,111.51	0.00	0.00	147.83	0.00	0.00	174.94	1,111.51	174.94	N	N
A20-04	20.97	1,059.61	74.16	3,424.07	155.36	62.22	1,545.99	250.49	4,483.68	2.50	126.33	3.97	194.53	0.00	1.91	49.66	18.47	933.28	70.19	3,229.54	155.36	60.31	1,496.33	244.02	4,162.82	304.33	N	N

Cluster	Pre- Project Foraging Habitat Totals								Project Removals						Post- Project Foraging Habitat Totals														
	Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Future Potential Acreage	Future Potential BA	Suitable + Potentially Suitable Acreage	Suitable + Potentially Suitable BA	Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Future Potential Acreage	Future Potential BA	805.00	Non-contiguous Habitat Acreage	Non-contiguous Habitat BA	Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Future Potential Acreage	Future Potential BA	Total Suitable + Potentially Suitable Acreage	Total Suitable + Potentially Suitable BA	Total Manageable Acres	Deficient Pre-project?	Deficient Post-project?	
A07-01	35.59	1,313.44	0.00	0.00	147.44	4,009.86	35.59	1,313.44	2.96	100.64	0.00	0.00	9.42	259.67	0.00	0.00	32.63	1,212.80	0.00	0.00	138.02	3,750.19	32.63	1,212.80	170.65	Y	Y		
A08-01	113.80	4,648.57	45.47	1,709.06	27.96	377.04	159.27	6,357.63	3.26	130.74	1.16	44.08	1.83	33.60	0.00	0.00	110.54	4,517.83	44.31	1,664.98	26.13	343.44	154.85	6,182.81	180.98	N	N		
A08-02a	81.50	2,895.42	6.85	294.55	0.00	0.00	88.35	3,189.97	1.80	63.00	1.29	55.47	0.00	0.00	0.00	0.00	79.70	2,832.42	5.56	239.08	0.00	0.00	85.26	3,071.50	85.26	N	N		
A09-03R	11.89	419.17	108.07	3,526.72	8.40	0.00	119.96	3,945.89	7.25	257.50	6.03	199.15	1.49	0.00	0.00	0.00	4.64	161.67	102.04	3,327.57	6.91	0.00	106.68	3,489.24	113.59	N	N		
A09-04R**	78.15	2,563.11	4.29	130.85	121.29	2,680.81	82.44	2,693.96	0.00	0.00	0.00	17.11	427.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104.18	2,253.11	82.44	2,693.96	186.62	Y	Y		
A09-05	111.60	4,190.16	13.35	405.51	50.12	1,206.58	124.95	4,595.67	3.83	140.60	0.15	4.50	0.20	5.00	0.00	0.00	107.77	4,049.56	13.20	401.01	49.92	1,201.58	120.97	4,450.57	170.89	N	N		
A14-03R	64.56	3,087.58	2.88	95.99	31.61	1,146.84	67.44	3,183.57	38.20	1,960.05	0.00	0.00	0.00	0.00	0.00	0.00	26.36	1,127.53	2.88	95.99	31.61	1,146.84	29.24	1,223.52	60.85	Y	Y		
A17-01	85.96	4,545.01	32.01	1,509.58	0.00	0.00	117.97	6,054.59	85.96	4,545.01	32.01	1,509.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N	Y	
A17-02	62.70	3,298.06	0.00	0.00	58.72	428.19	62.70	3,298.06	60.44	3,187.32	0.00	0.00	56.67	407.69	0.00	0.00	2.26	110.74	0.00	0.00	2.05	20.50	2.26	110.74	4.31	Y	Y		
A17-03	88.10	4,660.04	20.17	1,008.50	0.00	0.00	108.27	5,668.54	88.10	4,660.04	20.17	1,008.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N	Y	
A17-04	140.02	7,150.66	71.92	4,049.31	3.98	3.77	211.94	11,199.97	59.77	3,292.20	11.12	553.31	0.00	0.00	0.00	0.00	0.00	80.25	3,858.46	60.80	3,496.00	3.98	3.77	141.05	7,354.46	145.03	N	N	
A17-05	100.35	4,311.47	10.38	550.14	2.92	17.52	110.73	4,861.61	81.36	3,572.30	10.38	550.14	1.59	9.54	0.00	0.00	18.99	739.17	0.00	0.00	1.33	7.98	18.99	739.17	20.32	N	Y		
A17-06	96.66	4,321.54	0.00	0.00	24.01	98.00	96.66	4,321.54	96.51	4,316.07	0.00	0.00	0.16	3.64	0.00	0.00	0.15	5.47	3.00	0.00	23.85	94.36	0.15	5.47	24.00	N	Y		
A17-07	74.21	3,339.45	18.70	960.20	0.00	0.00	92.91	4,299.65	73.73	3,317.85	18.70	960.20	0.00	0.00	0.00	0.00	0.48	21.60	0.00	0.00	0.00	0.00	0.48	21.60	0.48	N	Y		
A17-08	111.84	7,119.92	0.00	0.00	18.73	106.10	111.84	7,119.92	111.84	7,119.92	0.00	0.00	18.73	106.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N	Y	
A17-11R	123.32	8,139.12	0.00	0.35	1.93	106.53	123.32	8,139.12	106.53	7,030.98	0.00	0.00	0.35	1.93	0.00	0.00	16.79	1,108.14	0.00	0.00	0.00	0.00	0.00	16.79	1,108.14	16.79	N	Y	
A17-12R	14.81	977.46	43.67	1,593.96	62.53	1,486.81	58.48	2,571.42	4.75	313.50	0.00	0.00	26.47	684.53	0.00	0.00	10.06	663.96	43.67	1,593.96	36.06	802.28	53.73	2,257.92	89.79	Y	Y		
A17-13	80.36	4,178.72	24.42	1,221.00	0.00	0.00	104.78	5,399.72	80.36	4,178.72	24.42	1,221.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N	Y	
A17-14a	66.47	3,542.07	20.18	1,130.39	15.92	95.52	86.65	4,672.46	66.47	3,542.07	20.18	1,130.39	11.83	70.98	0.00	0.00	0.00	0.00	0.00	0.00	4.09	24.54	0.00	0.00	0.00	4.09	N	Y	
A17-14b	82.91	4,636.34	0.00	0.00	6.01	153.02	82.91	4,636.34	56.36	3,161.91	0.00	0.00	0.64	3.84	0.00	0.00	26.55	1,474.43	0.00	0.00	5.37	149.18	26.55	1,474.43	31.92	N	Y		
A20-06	121.55	4,441.49	0.00	0.00	50.97	1,402.06	121.55	4,441.49	20.46	760.78	0.00	0.00	9.03	230.02	0.00	0.00	101.09	3,680.71	0.00	0.00	41.94	1,172.04	101.09	3,680.71	143.03	N	N		
BB03-01R	27.38	1,017.39	12.96	637.49	100.60	1,786.60	40.34	1,654.88	1.37	52.60	0.65	30.65	8.43	186.63	0.00	0.00	26.01	964.79	12.31	606.84	92.17	1,599.97	38.32	1,571.63	130.49	Y	Y		
BB04-01R	102.51	4,134.91	4.02	291.37	37.28	809.54	106.53	4,426.28	7.48	342.33	0.00	0.00	4.03	71.86	0.00	0.00	7.34	337.64	87.69	3,454.94	4.02	291.37	33.25	737.68	91.71	3,746.31	124.96	N	N
BB05-01R	87.25	3,424.61	101.41	3,976.85	55.34	1,308.38	188.66	7,401.46	12.62	580.52	0.59	24.49	0.53	11.00	0.00	0.00	0.00	0.00	100.82	3,952.36	54.81	1,297.38	175.45	6,796.45	230.26	N	N		
C01-02	0.42	19.95	167.28	6,711.82	18.35	0.00	167.70	6,731.77	0.00	0.00	2.34	78.81	0.00	0.00	0.00	0.00	0.42	19.95	164.94	6,633.01	18.35	0.00	165.36	6,652.96	183.71	N	N		
C01-03	18.97	982.80	71.81	2,841.78	41.32	676.98	90.78	3,824.58	1.15	70.15	3.81	161.10	3.47	93.14	0.00	0.00	17.82	912.65	68.00	2,680.68	37.85	583.84	85.82	3,593.33	123.67	N	N		
C01-06	27.04	1,212.32	75.53	3,105.49	19.38	75.90	102.57	4,317.81	0.00	0.00	9.44	383.27	1.07	30.50	0.00	0.00	27.04	1,212.32	66.09	2,722.22	18.31	45.40	93.13	3,934.54	111.44	N	N		
C02-02	54.25	2,079.29	158.04	6,171.56	80.72	1,000.93	212.29	8,250.85	16.56	591.28	0.00	0.00	11.26	27.05	0.00	0.00	37.69	1,488.01	158.04	6,171.56	69.46	973.88	195.73	8,633.45	265.19	N	N		
D05-02R	125.55	4,943.82	0.00	0.00	38.87	853.42	125.55	4,943.82	34.50	1,526.89	0.00	0.00	26.88	591.36	0.00	0.00	91.05	3,416.93	0.00	0.00	11.99	262.06	91.05	3,416.93	103.04	N	N		
D05-04R	243.87	9,780.13	0.00	0.00	46.85	502.91	243.87	9,780.13	121.72	5,032.87	0.00	0.00	28.91	376.76	0.00	0.00	122.15	4,747.26	0.00	0.00	17.94	126.15	122.15	4,747.26	140.09	N	N		
D06-01R	63.12	1,955.13	0.00	0.00	92.27	1,490.97	63.12	1,955.13	0.03	0.95	0.00	0.00	39.39	492.29	13.94	135.64	63.09	1,954.18	0.00	0.00	38.94	863.04	63.09	1,954.18	102.03	Y	Y		
D08-01R	86.01	3,154.70	0.00	0.00	131.25	1,317.27	86.01	3,154.70	46.40	1,924.82	0.00	0.00	39.54	746.83	0.00	0.00	39.61	1,229.88	0.00	0.00	9								

Table 3-2 (cont). Red-cockaded woodpecker foraging habitat data using the **Standard for Managed Stability** (USFWS 2003a) for all partitions impacted by **Alternative B** of the proposed Fort Benning Maneuver Center of Excellence projects, Chattahoochee and Muscogee Counties, Georgia.

Cluster	Pre- project Foraging Habitat Totals								Project Removals						Post- Project Foraging Habitat Totals											Deficient Pre-project?	Deficient Post-project?
	Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Future Potential Acreage	Future Potential BA	Suitable + Potentially Suitable Acreage	Suitable + Potentially Suitable BA	Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Future Potential Acreage	Future Potential BA	Non-contiguous Habitat Acreage	Non-contiguous Habitat BA	Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Future Potential Acreage	Future Potential BA	Total Suitable + Potentially Suitable Acreage	Total Suitable + Potentially Suitable BA	Total Manageable Acres		
K12-01	137.11	5,735.15	0.00	0.00	65.27	397.22	137.11	5,735.15	45.82	1,962.37	0.00	0.00	0.00	0.00	0.00	0.00	91.29	3,772.78	0.00	0.00	65.27	397.22	91.29	3,772.78	156.56	N	N
K13-02	92.47	4,397.26	7.51	300.40	52.66	1,421.84	99.98	4,697.66	58.38	2,426.42	0.00	0.00	18.93	490.28	0.00	0.00	34.09	1,970.84	7.51	300.40	33.73	931.56	41.60	2,271.24	75.33	N	Y
K13-04	54.07	1,779.47	40.74	1,885.00	84.04	720.16	94.81	3,664.47	37.00	1,207.66	24.90	1,132.95	31.87	0.00	0.00	0.00	17.07	571.81	15.84	752.05	52.17	720.16	32.91	1,323.86	85.08	N	Y
K13-05R	55.07	2,538.46	0.00	0.00	54.29	1,062.07	55.07	2,538.46	12.77	519.81	0.00	0.00	4.51	26.00	0.00	0.00	42.30	2,018.65	0.00	0.00	49.78	1,036.07	42.30	2,018.65	92.08	Y	Y
K13-06	33.75	1,171.79	129.48	5,483.35	46.70	0.00	163.23	6,655.14	0.00	0.00	0.63	22.40	4.65	0.00	0.00	0.00	33.75	1,171.79	128.85	5,460.95	42.05	0.00	162.60	6,632.74	204.65	N	N
K21-02R	175.02	7,509.92	0.00	0.00	33.15	780.02	175.02	7,509.92	32.19	1,285.04	0.00	0.00	4.66	109.65	0.00	0.00	142.83	6,224.88	0.00	0.00	28.49	670.37	142.83	6,224.88	171.32	N	N
K21-05R	245.38	10,454.52	0.00	0.00	27.39	321.50	245.38	10,454.52	68.78	2,770.53	0.00	0.00	0.03	0.57	0.00	0.00	176.60	7,683.99	0.00	0.00	27.36	320.93	176.60	7,683.99	203.96	N	N
KPR-01	82.03	4,519.79	67.75	2,869.86	27.50	501.11	149.78	7,389.65	10.63	610.63	7.80	320.74	3.22	83.19	0.00	0.00	71.40	3,909.16	59.95	2,549.12	24.28	417.92	131.35	6,458.28	155.63	N	N
LO2-02R	117.31	4,613.67	24.17	1,052.86	112.06	2,206.05	141.48	5,666.53	14.19	547.82	3.12	93.60	13.99	322.95	0.00	0.00	103.12	4,065.85	21.05	959.26	98.07	1,883.10	124.17	5,025.11	222.24	N	N
L03-01	41.59	1,966.83	8.90	399.76	57.40	1,140.23	50.49	2,366.59	2.64	84.52	2.02	75.75	8.74	205.39	0.00	0.00	38.95	1,882.31	6.88	324.01	48.66	934.84	45.83	2,206.32	94.49	Y	Y
M01-01	48.31	2,133.46	0.00	0.00	65.14	1,323.19	48.31	2,133.46	1.69	75.84	0.00	0.00	2.10	51.41	0.00	0.00	46.62	2,057.62	0.00	0.00	63.04	1,271.78	46.62	2,057.62	109.66	Y	Y
M08-01	115.13	5,256.85	19.96	758.48	133.14	3,323.74	135.09	6,015.33	12.05	514.03	0.00	0.00	6.30	140.14	0.00	0.00	103.08	4,742.82	19.96	758.48	126.84	3,183.60	123.04	5,501.30	249.88	N	N
M08-02a	123.64	5,686.47	17.25	830.68	17.55	286.45	140.89	6,517.15	8.66	409.12	0.50	26.75	0.00	0.00	0.00	0.00	114.98	5,277.35	16.75	803.93	17.55	286.45	131.73	6,081.28	149.28	N	N
M08-02b	75.99	3,351.79	10.35	374.84	30.41	663.06	86.34	3,726.63	9.36	413.14	0.00	0.00	5.56	135.89	0.00	0.00	66.63	2,938.65	10.35	374.84	24.85	527.17	76.98	3,313.49	101.83	N	N
M08-04R	52.64	1,894.52	42.57	1,383.53	100.17	2,140.82	95.21	3,278.05	2.63	89.06	0.00	0.00	6.24	102.85	0.00	0.00	50.01	1,805.46	42.57	1,383.53	93.93	2,037.97	92.58	3,188.99	186.51	N	N
M08-05R	94.72	4,240.06	84.06	3,652.10	73.04	1,182.08	178.78	7,892.16	0.26	9.62	1.84	57.33	5.98	103.29	0.00	0.00	94.46	4,230.44	82.22	3,594.77	67.06	1,078.79	176.68	7,825.21	243.74	N	N
N01-02	65.26	2,522.32	29.33	1,339.39	33.59	351.12	94.59	3,861.71	0.98	38.22	2.36	98.23	1.02	20.40	0.00	0.00	64.28	2,484.10	26.97	1,241.16	32.57	330.72	91.25	3,725.26	123.82	N	N
O01-01	110.72	4,120.49	28.35	935.95	9.25	47.78	139.07	5,056.44	2.31	95.33	0.00	0.00	0.00	0.00	0.00	0.00	108.41	4,025.16	28.35	935.95	9.25	47.78	136.76	4,961.11	146.01	N	N
O01-02	24.05	877.11	12.16	498.56	112.46	2,236.35	36.21	1,375.67	4.45	164.65	0.00	0.00	8.60	175.17	0.00	0.00	19.60	712.46	12.16	498.56	103.86	2,061.18	31.76	1,211.02	135.62	Y	Y
O01-03	86.23	3,768.47	23.52	1,079.14	40.74	745.27	109.75	4,847.61	5.09	244.03	4.34	197.20	13.75	228.79	0.00	0.00	81.14	3,524.44	19.18	881.94	26.99	516.48	100.32	4,406.38	127.31	N	N
O01-04R	48.70	2,058.33	72.87	2,922.05	47.54	819.75	121.57	4,980.38	6.52	254.43	6.30	244.18	9.50	180.56	0.00	0.00	42.18	1,803.90	66.57	2,677.87	38.04	639.19	108.75	4,481.77	146.79	N	N
O02-01R	54.69	2,430.15	61.30	2,560.76	103.56	1,889.73	115.99	4,990.91	7.82	315.70	1.82	70.06	8.43	74.16	0.00	0.00	46.87	2,114.45	59.48	2,490.70	95.13	1,815.57	106.35	4,605.15	201.48	N	N
O03-01	16.68	669.02	29.59	1,063.85	47.03	1,109.74	46.27	1,732.87	1.00	40.00	4.74	167.60	5.54	124.30	0.00	0.00	15.68	629.02	24.85	896.25	41.49	985.44	40.53	1,525.27	82.02	Y	Y
O03-02	116.42	4,712.84	0.00	0.00	47.04	648.55	116.42	4,712.84	20.77	877.68	0.00	0.00	11.38	197.92	0.00	0.00	95.65	3,835.16	0.00	0.00	35.66	450.63	95.65	3,835.16	131.31	N	N
O03-03	45.82	2,007.64	0.00	0.00	116.60	1,272.13	45.82	2,007.64	8.55	397.95	0.00	0.00	15.15	165.20	0.00	0.00	37.27	1,609.69	0.00	0.00	101.45	1,106.93	37.27	1,609.69	138.72	Y	Y
O03-04	30.00	1,037.71	6.36	254.34	156.50	2,012.23	36.36	1,292.05	5.26	176.55	0.00	0.00	22.44	285.29	0.00	0.00	24.74	861.16	6.36	254.34	134.06	1,726.94	31.10	1,115.90	165.16	Y	Y
O03-05	152.93	6,474.35	43.54	1,676.66	71.71	570.39	196.47	8,151.01	12.74	494.48	4.93	194.74	8.03	67.70	0.00	0.00	140.19	5,979.87	38.61	1,481.92	63.68	502.69	178.80	7,461.79	242.48	N	N
O03-06R	122.32	4,283.33	0.00	0.00	143.78	3,469.15	122.32	4,283.33	22.34	763.99	0.00	0.00	12.69	355.60	0.00	0.00	99.98	3,519.34	0.00	0.00	131.09	3,113.55	99.98	3,519.34	231.07	N	N
O03-07	122.38	5,086.28	0.00	0.00	56.01	507.19	122.38	5,086.28	10.42	415.76	0.00	0.00	0.37	0.00	0.00	0.00	111.96	4,670.52	0.00	0.00	55.64	507.19	111.96	4,670.52	167.60	N	N
O04-01	0.00	0.00	0.00	0.00	73.17	1,778.52	0.00	0.00	0.00	0.00	0.00	0.00	14.67	355.84	0.00	0.00	0.00	0.00	0.00	0.00	58.50	1,422.68	0.00	0.00	58.50	Y	Y
O04-03a	0.00	0.00	0.00	0.00	75.69	1,627.87	0.00	0.00	0.00	0.00	0.00	0.00	2.21	47.52	0.00	0.00	0.00	0.00	0.00	0.00	73.48	1,580.35	0.00	0.00	73.48	Y	Y
O04-03b	26.18	1,262.54	0.00	0.00	56.21	800.44	26.18	1,262.54	4.37	205.39	0.00	0.00	7.15	121.85	0.00	0.00	21.81	1,057.15	0.00	0.00	49.06	678.59	21.81	1,057.15	70.87	Y	Y
O05-01	220.28	11,209.36	8.60	671.22	46.87	620.57	228.88	11,880.58	23.00	1,115.66	1.75	155.86	4.19	139.00	0.00	0.00	197.28	10,093.70	6.85	515.36	42.68	481.57	204.13	10,609.06	246.81	N	N
O05-02	92.95	3,884.27	10.36	468.35	31.46	813.56	103.31	4,352.62	31.35	1,359.36	7.39	365.17	27.28	812.36	3.29	104.37	61.60	2,524.91	0.00	0.00	3.86	0.00	61.60	2,524.91	65.46	N	Y
O05-03R	181.66	7,748.62	11.91	471.90	44.45	804.24	193.57	8,220.52	26.96	1,094.25	9.48	387.48	19.47	253.66	0.00	0.00	154.70	6,654.37	2.43	84.42	24.98	550.58	157.13	6,738.79	182.11	N	N
O07-01R	0.00	0.00	131.74	5,676.85	96.33	1,157.39	131.74	5,676.85	0.00	0.00	12.13	517.31	38.01	853.87	0.00	0.00	0.00	0.00	119.61	5,159.54	58.32	303.52	119.61	5,159.54	177.93	N	N
O07-03R	73.17	2,900.77	75.33	2,464.09	197.63	4,581.38	148.50	5,364.86	9.34	349.63	0.00	0.00	10.83	232.57	0.00	0.00	63.83	2,551.14	75.33	2,464.09	186.80	4,348.81	139.16	5,015.23	325.96		

Table 3-3. Red-cockaded woodpecker foraging habitat data using the **Recovery Standard** (USFWS 2003a) for all partitions impacted by **Alternative B** of the proposed Fort Benning Maneuver Center of Excellence projects, Chattahoochee and Muscogee Counties, Georgia.

Cluster	Pre- Project Foraging Habitat Totals								
	Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Forested Acreage (within A20 Impact Area)	Future Potential Acreage	Future Potential BA	Suitable + Potentially Suitable Acreage	Suitable + Potentially Suitable BA
A06-01	0.00	0.00	0.00	0.00	35.23	187.36	7,801.66	0.00	0.00
A08-03	0.00	0.00	0.00	0.00	17.33	99.79	4,060.39	0.00	0.00
A08-04	0.00	0.00	0.00	0.00	154.79	27.11	1,111.51	0.00	0.00
A20-04	0.00	0.00	4.26	272.64	155.36	153.09	5,757.03	4.26	272.64

Project Removals							
Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Forested Acreage (within A20 Impact Area)	Future Potential Acreage	Future Potential BA	Future Potential BA
0.00	0.00	0.00	0.00	0.00	2.42	96.77	
0.00	0.00	0.00	0.00	5.74	0.00	0.00	
0.00	0.00	0.00	0.00	6.96	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	8.38	370.52	

Post- Project Foraging Habitat Totals											
Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Forested Acreage (within A20 Impact Area)	Future Potential Acreage	Future Potential BA	Total Suitable + Potentially Suitable Acreage		Total Manageable Acres	Deficient Pre-project?	Deficient Post-project?
							Total Suitable + Potentially Suitable Acreage	Total Suitable + Potentially Suitable BA			
0.00	0.00	0.00	0.00	35.23	184.94	7,704.89	0.00	0.00	220.17	Y	Y*
0.00	0.00	0.00	0.00	11.59	99.79	4,060.39	0.00	0.00	111.38	Y	Y
0.00	0.00	0.00	0.00	147.83	27.11	1,111.51	0.00	0.00	174.94	Y	Y*
0.00	0.00	4.26	272.64	155.36	144.71	5,386.51	4.26	272.64	304.33	Y	Y*

Cluster	Pre- Project Foraging Habitat Totals								
	Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Future Potential Acreage	Future Potential BA	Suitable + Potentially Suitable Acreage	Suitable + Potentially Suitable BA	
A07-01	0.00	0.00	1.97	90.62	181.06	5,232.68	1.97	90.62	
A08-01	0.00	0.00	0.00	0.00	187.23	6,734.67	0.00	0.00	
A08-02a	0.00	0.00	49.77	1,839.67	38.58	1,350.30	49.77	1,839.67	
A09-03R	0.00	0.00	0.00	0.00	128.36	3,945.89	0.00	0.00	
A09-04R	0.00	0.00	0.00	0.00	203.73	5,374.77	0.00	0.00	
A09-05	0.00	0.00	0.00	0.00	175.07	5,802.25	0.00	0.00	
A14-03R	0.00	0.00	47.17	2,452.84	51.88	1,877.57	47.17	2,452.84	
A17-01	0.00	0.00	85.96	4,545.01	32.01	1,509.58	85.96	4,545.01	
A17-02	0.00	0.00	62.70	3,298.06	58.72	428.19	62.70	3,298.06	
A17-03	0.00	0.00	53.95	2,805.40	54.32	2,863.14	53.95	2,805.40	
A17-04	0.00	0.00	39.27	2,042.04	176.65	9,161.70	39.27	2,042.04	
A17-05	0.00	0.00	83.93	3,776.85	29.72	1,102.28	83.93	3,776.85	
A17-06	0.00	0.00	51.19	2,661.88	69.48	1,757.66	51.19	2,661.88	
A17-07	0.00	0.00	74.21	3,339.45	18.70	960.20	74.21	3,339.45	
A17-08	0.00	0.00	111.84	7,119.92	18.73	106.10	111.84	7,119.92	
A17-11R	0.00	0.00	123.32	8,139.12	0.35	1.93	123.32	8,139.12	
A17-12R	0.00	0.00	14.81	977.46	106.20	3,080.77	14.81	977.46	
A17-13	0.00	0.00	80.36	4,178.72	24.42	1,221.00	80.36	4,178.72	
A17-14a	0.00	0.00	4.41	229.32	98.16	4,538.66	4.41	229.32	
A17-14b	0.00	0.00	0.00	0.00	88.92	4,789.36	0.00	0.00	
A20-06	0.00	0.00	0.00	0.00	172.52	5,843.55	0.00	0.00	
BB03-01R	0.00	0.00	8.78	424.04	166.76	4,004.10	8.78	424.04	
BB04-01R	10.85	461.13	23.22	1,036.17	109.74	3,738.52	34.07	1,497.30	
BB05-01R	0.00	0.00	0.00	0.00	244.00	8,709.84	0.00	0.00	
C01-02	0.30	15.45	64.04	2,915.92	121.71	3,800.40	64.34	2,931.37	
C01-03	11.55	704.55	35.46	1,557.11	85.09	2,239.90	47.01	2,261.66	
C01-06	27.04	1,212.32	47.07	2,024.01	47.84	1,157.38	74.11	3,236.33	
C02-02	9.17	366.80	0.00	0.00	283.84	8,884.98	9.17	366.80	
D05-02R	0.00	0.00	0.00	0.00	164.42	5,797.24	0.00	0.00	
D05-04R	0.00	0.00	0.00	0.00	290.72	10,283.04	0.00	0.00	
D06-01R	0.00	0.00	0.00	0.00	155.39	3,446.10	0.00	0.00	
D08-01R	0.00	0.00	0.00	0.00	242.89	5,355.42	0.00	0.00	
D10-01	40.41	1,333.53	0.00	0.00	132.84	1,891.77	40.41	1,333.53	
D11-01	83.36	3,174.20	0.00	0.00	60.34	432.68	83.36	3,174.20	
D11-02	45.69	1,762.51	0.00	0.00	114.10	3,385.99	45.69	1,762.51	
D12-01	58.36	2,761.74	0.00	0.00	160.28	4,225.14	58.36	2,761.74	
D16-01	16.76	838.00	0.00	0.00	207.87	3,782.67	16.76	838.00	
D16-02	0.00	0.00	0.00	0.00	226.24	3,999.45	0.00	0.00	
D17-01	34.49	1,500.32	0.00	0.00	270.50	5,320.90	34.49	1,500.32	
D17-03	13.00	598.00	0.00	0.00	190.71	5,426.40	13.00	598.00	
D17-04R	34.55	1,485.25	0.00	0.00	158.04	3,925.67	34.55	1,485.25	
E02-01R	0.92	44.62	0.00	0.00	180.78	3,748.72	0.92	44.62	
E04-01	9.65	406.95	6.06	575.70	151.65	4,786.55	15.71	982.65	
F02-01R	48.58	2,130.20	0.00	0.00	141.86	2,853.07	48.58	2,130.20	
HCC-08R	2.74	117.82	0.00	0.00	186.16	5,409.86	2.74	117.82	
HCC-10R	0.00	0.00	8.07	347.01	137.02	4,616.90	8.07	347.01	
HCC-11R	0.00	0.00	1.74	68.73	207.10	5,031.87	1.74	68.73	
J01-02R	10.45	470.25	3.62	289.60	184.71	2,669.42	14.07	759.85	
J02-02R	10.81	459.43	0.00	0.00	129.75	3,063.70	10.81	459.43	
J06-03	1.43	53.63	0.00	0.00	287.01	9,715.30	1.43	53.63	
K02-01	0.00	0.00	0.00	0.00	256.36	5,932.78	0.00	0.00	
K08-03R	37.72	1,603.10	0.00	0.00	89.19	1,958.45	37.72	1,603.10	
K08-04	23.14	983.45	5.46	207.48	163.79	5,600.70	28.60	1,190.93	
K09-01	49.40	2,240.38	27.09	1,034.70	72.81	2,229.33	76.49	3,275.08	
K09-02R	2.44	97.71	2.04	102.00	148.70	5,002.88	4.48	199.71	

Project Removals					
Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Future Potential Acreage	Future Potential BA
0.00	0.00	0.00	0.00	12.38	360.31
0.00	0.00	0.00	0.00	6.25	208.42
0.00	0.00	1.29	55.47	1.80	63.00
0.00	0.00	0.00	0.00	14.77	456.65
0.00	0.00	0.00	0.00	17.11	427.70
0.00	0.00	0.00	0.00	4.18	150.10
0.00	0.00	36.50	1,898.00	1.70	62.05
0.00	0.00	85.96	4,545.01	32.01	1,509.58
0.00	0.00	60.44	3,187.32	56.67	407.69
0.00	0.00	53.95	2,805.40	54.32	2,863.14
0.00	0.00	13.31	692.12	57.58	3,156.90
0.00	0.00	74.17	3,337.65	19.16	794.33
0.00	0.00	51.19	2,661.88	45.48	1,657.83
0.00	0.00	73.73	3,317.85	18.70	960.20
0.00	0.00	111.84	7,119.92	18.73	106.10
0.00	0.00	106.53	7,030.98	0.35	1.93
0.00	0.00	4.75	313.50	26.47	684.53
0.00	0.00	80.36	4,178.72	24.42	1,221.00
0.00	0.00	4.41	229.32	94.07	4,514.12
0.00	0.00	0.00	0.00	57.00	3,165.75
0.00	0.00	0.00	0.00	29.49	990.80
0.00	0.00	0.79	37.44	8.67	194.91
0.00	0.00	0.27	10.67	11.24	403.52
0.00	0.00	0.00	0.00	13.74	616.01
0.00	0.00	0.00	0.00	2.34	78.81
1.15	70.15	3.03	132.98	4.25	121.26
0.00	0.00	4.91	211.13	5.60	202.64
0.00	0.00	0.00	0.00	27.82	618.33
0.00	0.00	0.00	0.00	61.38	2,118.25
0.00	0.00	0.00	0.00	150.63	5,409.63
0.00	0.00	0.00	0.00	39.42	493.24
0.00	0.00	0.00	0.00	111.56	3,554.77
1.80	59.40	0.00	0.00	32.50	698.47
45.99	1,732.99	0.00	0.00	38.50	215.24
45.54	1,756.74	0.00	0.00	93.91	2,705.42
4.48	226.25	0.00	0.00	22.45	585.99
0.00	0.00	0.00	0.00	47.90	916.97
0.00	0.00	0.00	0.00	175.61	3,152.95
20.49	891.32	0.00	0.00	73.78	1,988.46
12.81	589.26	0.00	0.00	101.90	2,779.66
9.62	424.32	0.00	0.00	88.06	2,481.07
0.00	0.00	0.00	0.00	2.93	71.41
4.20	161.70	3.09	293.55	52.51	1,919.54
36.76	1,602.14	0.00	0.00	92.92	2,012.29
0.61	26.23	0.00	0.00	0.00	0.00
0.00	0.00	0.58	24.94	18.55	645.29
0.00	0.00	0.93	36.74	13.16	333.88
0.00	0.00	0.01	0.37	6.35	229.60
4.69	199.33	0.00	0.00	11.68	301.02
0.46	17.25	0.00	0.00	43.83	1,611.55
0.00	0.00	0.00	0.00	171.13	3,933.64
2.78	118.15	0.00	0.00	9.72	315.90
2.48	105.40	2.51	95.38	10.15	364.97
0.00	0.00	1.05	39.90	2.38	70.69
2.42	96.80	0.00	0.00	41.95	1,080.20

Post- Project Foraging Habitat Totals													
Non-contiguous Habitat Acreage	Non-contiguous Habitat BA	Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Future Potential Acreage	Future Potential BA	Total Suitable + Potentially Suitable Acreage		Total Manageable Acres	Deficient Pre-project?	Deficient Post-project?	
								Total Suitable + Potentially Suitable Acreage	Total Suitable + Potentially Suitable BA				
0.00	0.00	0.00	0.00	1.97	90.62	168.68	4,872.37	1.97	90.62	170.65	Y	Y*	
0.00	0.00	0.00	0.00	0.00	0.00	180.98	6,526.25	0.00	0.00	180.98	Y	Y*	
0.00	0.00	0.00	0.00	48.48	1,784.20	36.78	1,287.30	48.48	1,784.20	85.26	Y	Y	
0.00	0.00	0.00	0.00	0.00	0.00	113.59	3,489.24	0.00	0.00	113.59	Y	Y	
0.00	0.00	0.00	0.00	0.00	0.00	186.62	4,947.07	0.00	0.00	186.62	Y	Y*	
0.00	0.00	0.00	0.00	0.00	0.00	170.89	5,652.1						

Table 3-3 (cont). Red-cockaded woodpecker foraging habitat data using the **Recovery Standard** (USFWS 2003a) for all partitions impacted by **Alternative B** of the proposed Fort Benning Maneuver Center of Excellence projects, Chattahoochee and Muscogee Counties, Georgia.

Cluster	Pre- Project Foraging Habitat Totals								Project Removals					Post- Project Foraging Habitat Totals															
	Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Future Potential Acreage	Future Potential BA	Suitable + Potentially Suitable Acreage	Suitable + Potentially Suitable BA	Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Future Potential Acreage	Future Potential BA	Non-contiguous Habitat Acreage	Non-contiguous Habitat BA	Suitable Acreage	Suitable BA	Potentially Suitable Acreage	Potentially Suitable BA	Future Potential Acreage	Future Potential BA	Total Suitable + Potentially Suitable Acreage	Total Suitable + Potentially Suitable BA	Total Manageable Acres	Deficient Pre-project?	Deficient Post-project?		
K09-03R	0.00	0.00	44.32	2,216.00	202.65	5,804.12	44.32	2,216.00	0.00	0.00	0.61	30.50	16.61	423.41	0.00	0.00	0.00	0.00	43.71	2,185.50	186.04	5,380.71	43.71	2,185.50	229.75	Y	Y*		
K11-02	68.15	2,854.25	0.00	0.00	214.52	5,956.96	68.15	2,854.25	40.50	1,653.43	0.00	0.00	33.16	951.95	0.00	0.00	27.65	1,200.82	0.00	0.00	181.36	5,005.01	27.65	1,200.82	209.01	Y	Y*		
K11-04R	16.98	716.26	0.00	0.00	159.45	2,980.87	16.98	716.26	9.29	381.74	0.00	0.00	70.48	1,151.25	0.00	0.00	7.69	334.52	0.00	0.00	88.97	1,829.62	7.69	334.52	96.66	Y	Y		
K12-01	83.19	3,577.17	0.00	0.00	119.19	2,555.20	83.19	3,577.17	43.90	1,887.70	0.00	0.00	1.92	74.67	0.00	0.00	39.29	1,689.47	0.00	0.00	117.27	2,480.53	39.29	1,689.47	156.56	Y	Y*		
K13-02	45.08	2,536.62	0.00	0.00	107.56	3,582.88	45.08	2,536.62	10.99	565.78	0.00	0.00	66.32	2,350.92	0.00	0.00	34.09	1,970.84	0.00	0.00	41.24	1,231.97	34.09	1,970.84	75.33	Y	Y		
K13-04	0.00	0.00	0.70	32.90	178.15	4,351.73	0.70	32.90	0.00	0.00	0.00	0.00	93.77	2,340.61	0.00	0.00	0.00	0.00	0.70	32.90	84.38	2,011.12	0.70	32.90	85.08	Y	Y		
K13-05R	19.60	1,033.22	22.90	996.15	66.86	1,571.16	42.50	2,029.37	0.25	12.75	0.00	0.00	17.03	533.06	0.00	0.00	19.35	1,020.47	22.90	996.15	49.83	1,038.11	42.25	2,016.62	92.08	Y	Y		
K13-06	0.00	0.00	75.85	3,564.95	134.08	3,090.19	75.85	3,564.95	0.00	0.00	0.00	0.00	5.28	22.40	0.00	0.00	0.00	0.00	75.85	3,564.95	128.80	3,067.79	75.85	3,564.95	204.65	Y	Y*		
K21-02R	51.25	2,639.38	0.00	0.00	156.92	5,650.56	51.25	2,639.38	0.00	0.00	0.00	0.00	36.85	1,394.69	0.00	0.00	51.25	2,639.38	0.00	0.00	120.07	4,255.87	51.25	2,639.38	171.32	Y	Y*		
K21-05R	111.35	5,102.19	2.42	112.53	159.00	5,561.30	113.77	5,214.72	5.84	248.73	0.00	0.00	62.97	2,522.37	0.00	0.00	105.51	4,853.46	2.42	112.53	96.03	3,038.93	107.93	4,965.99	203.96	Y	Y*		
KPR-01	0.00	0.00	60.42	2,987.70	116.86	4,903.06	60.42	2,987.70	0.00	0.00	6.79	333.40	14.86	681.16	0.00	0.00	0.00	0.00	53.63	2,654.30	102.00	4,221.90	53.63	2,654.30	155.63	Y	Y*		
L02-02R	90.79	3,418.24	19.84	1,080.91	142.91	3,373.43	110.63	4,499.15	9.49	357.30	0.00	0.00	21.81	607.07	0.00	0.00	81.30	3,060.94	19.84	1,080.91	121.10	2,766.36	101.14	4,141.85	222.24	Y	Y*		
L03-01	27.26	1,472.04	4.59	238.13	76.04	1,796.65	31.85	1,710.17	0.00	0.00	0.00	0.00	13.40	365.66	0.00	0.00	27.26	1,472.04	4.59	238.13	62.64	1,430.99	31.85	1,710.17	94.49	Y	Y		
M01-01	0.00	0.00	42.78	1,925.10	70.67	1,531.55	42.78	1,925.10	0.00	0.00	1.28	57.60	2.51	69.65	0.00	0.00	0.00	0.00	41.50	1,867.50	68.16	1,461.90	41.50	1,867.50	109.66	Y	Y		
M08-01	0.00	0.00	0.00	0.00	268.23	9,339.07	0.00	0.00	0.00	0.00	0.00	0.00	18.35	654.17	0.00	0.00	0.00	0.00	0.00	0.00	249.88	8,684.90	0.00	0.00	249.88	Y	Y*		
M08-02a	46.60	2,479.35	31.53	1,246.00	80.31	3,078.25	78.13	3,725.35	7.07	350.81	0.00	0.00	2.09	85.06	0.00	0.00	39.53	2,128.54	31.53	1,246.00	78.22	2,993.19	71.06	3,374.54	149.28	Y	Y		
M08-02b	31.08	1,418.76	17.97	812.45	67.70	2,158.48	49.05	2,231.21	3.70	163.44	3.94	178.32	7.28	207.27	0.00	0.00	27.38	1,255.32	14.03	634.13	60.42	1,951.21	41.41	1,889.45	101.83	Y	Y		
M08-04R	0.00	0.00	0.00	0.00	195.38	5,418.87	0.00	0.00	0.00	0.00	0.00	0.00	8.87	191.91	0.00	0.00	0.00	0.00	0.00	0.00	186.51	5,226.96	0.00	0.00	186.51	Y	Y*		
M08-05R	0.00	0.00	15.98	1,014.73	235.84	8,059.51	15.98	1,014.73	0.00	0.00	0.00	0.00	8.08	170.24	0.00	0.00	0.00	0.00	15.98	1,014.73	227.76	7,889.27	15.98	1,014.73	243.74	Y	Y*		
N01-02	20.41	938.86	10.46	502.08	100.31	2,890.39	30.87	1,440.94	0.00	0.00	0.00	0.00	4.36	156.85	0.00	0.00	20.41	938.86	10.46	502.08	95.95	2,733.54	30.87	1,440.94	126.82	Y	Y		
O01-01	34.25	1,482.92	0.05	2.05	114.02	3,619.25	34.30	1,484.97	0.00	0.00	0.00	0.00	2.31	95.33	0.00	0.00	34.25	1,482.92	0.05	2.05	111.71	3,523.92	34.30	1,484.97	146.01	Y	Y		
O01-02	2.12	76.32	12.16	498.56	134.39	3,037.14	14.28	574.88	0.00	0.00	0.00	0.00	13.05	339.82	0.00	0.00	2.12	76.32	12.16	498.56	121.34	2,697.32	14.28	574.88	135.62	Y	Y		
O01-03	3.35	156.91	0.00	0.00	147.14	5,435.97	3.35	156.91	1.16	54.33	0.00	0.00	22.02	615.69	0.00	0.00	2.19	102.58	0.00	0.00	125.12	4,820.28	2.19	102.58	127.31	Y	Y		
O01-04R	0.01	0.76	0.00	0.00	169.10	5,799.37	0.01	0.76	0.00	0.00	0.00	0.00	22.32	679.17	0.00	0.00	0.01	0.76	0.00	0.00	146.78	5,120.20	0.01	0.76	146.79	Y	Y		
O02-01R	37.31	1,738.00	56.85	2,416.13	125.39	2,726.51	94.16	4,154.13	1.85	83.10	1.09	46.33	15.13	330.49	0.00	0.00	35.46	1,654.90	55.76	2,369.80	110.26	2,396.02	91.22	4,024.70	201.48	Y	Y*		
O03-01	0.00	0.00	26.77	936.95	66.53	1,905.66	26.77	936.95	0.00	0.00	4.57	159.95	6.71	171.95	0.00	0.00	0.00	0.00	22.20	777.00	59.82	1,733.71	22.20	777.00	82.02	Y	Y		
O03-02	63.17	2,669.80	5.70	293.55	94.59	2,398.04	68.87	2,963.35	13.89	589.97	2.01	103.52	16.25	382.11	0.00	0.00	49.28	2,079.83	3.69	190.03	78.34	2,015.93	52.97	2,269.86	131.31	Y	Y		
O03-03	22.41	1,165.32	0.00	0.00	155.51	2,671.25	22.41	1,165.32	5.54	288.08	0.00	0.00	18.16	275.07	0.00	0.00	16.87	877.24	0.00	0.00	137.35	2,396.18	16.87	877.24	154.22	Y	Y*		
O03-04	0.00	0.00	0.00	0.00	192.86	3,304.28	0.00	0.00	0.00	0.00	0.00	0.00	27.70	461.84	0.00	0.00	0.00	0.00	0.00	0.00	165.16	2,842.44	0.00	0.00	165.16	Y	Y*		
O03-05	69.35	3,179.14	0.00	0.00	198.83	5,542.26	69.35	3,179.14	6.10	240.66	0.00	0.00	19.60	516.26	0.00	0.00	63.25	2,938.48	0.00	0.00	179.23	5,026.00	63.25	2,938.48	242.48	Y	Y*		
O03-06R	0.00	0.00	0.00	0.00	266.10	7,752.48	0.00	0.00	0.00	0.00	0.00	0.00	35.03	1,119.59	0.00	0.00	0.00	0.00	0.00	0.00	231.07	6,632.89	0.00	0.00	231.07	Y	Y*		
O03-07	0.00	0.00	0.00	0.00	178.39	5,593.47	0.00	0.00	0.00	0.00	0.00	0.00	10.79	415.76	0.00	0.00	0.00	0.00	0.00	0.00	167.60	5,177.71	0.00	0.00	167.60	Y	Y*		
O04-01	0.00	0.00	0.00	0.00	73.17	1,778.52	0.00	0.00	0.00	0.00	0.00	0.00	14.67	355.84	0.00	0.00	0.00	0.00	0.00	0.00	58.50	1,422.68	0.00	0.00	58.50	Y	Y		
O04-03a	0.00	0.00	0.00	0.00	75.69	1,627.87	0.00	0.00	0.00	0.00	0.00	0.00	2.21	47.52	0.00	0.00	0.00	0.00	0.00	0.00	73.48	1,580.35	0.00	0.00	73.48	Y	Y		
O04-03b	13.35	627.45	0.00	0.00	105.38	2,132.56	13.35	627.45	4.37	205.39	0.00	0.00	14.74	314.36	0.00	0.00	8.98	422.06	0.00	0.00	90.64	1,818.20	8.98	422.06	99.62	Y	Y		
O05-01	13.36	660.92	130.79	6,677.13	131.60	5,163.10	144.15	7,338.05	2.46	121.70	5.68	286.33	20.80	1,002.49	0.00	0.00	10.90	539.22	125.11	6,390.80	110.80	4,160.61	136.01	6,930.02	246.81	N	N		
O05-02	10.99	543.72	0.00	0.00	123.78	4,622.46	10.99	543.72	1.12	55.42	0.00	0.00	64.90	2,481.49	0.00	0.00	3.29	104.37	9.87	488.30	0.00	0.00	55.59	2,036.60	9.87	488.30	65.46	Y	Y
O05-03R	72.82	3,495.36	0.00	0.00	165.20	5,529.40	72.82	3,495.36	0.05	2.40	0.00	0.00	55.86	1,732.99	0.00	0.00	72.77	3,492.96	0.00	0.00	109.34	3,796.41	72.77	3,492.96	182.11	Y	Y*		
O07-01R	0.00	0.00	0.00	0.00	228.07	6,834.24	0.00	0.00	0.00	0.00	0.00	0.00	50.14	1,371.18	0.00	0.00	0.00	0.00	0.00	0.00	177.93	5,463.06	0.00	0.00	177.93	Y	Y*		
O07-03R	0.01	0.40	0.00	0.00	346.12	9,945.84	0.01	0.40	0.00	0.00	0.00	0.00	20.17	582.20	0.00	0.00	0.01	0.40	0.00	0.00	325.95	9,363.64	0.01	0.40	325.96	Y	Y*		
O08-01	0.00	0.00	0.00	0.00	228.92	5,088.19	0.00	0.00	0.00	0.00	0.00	0.00	19.46	458.10	0.00	0.00	0.00	0.00	0.00	0.00	209.46	4,630.09	0.00	0.00	209.46	Y	Y*		
O08-02	0.00	0.00	19.08	925.38	258.17	6,270.69	19.08	925.38	0.00	0.00	0.00	0.00	17.80	516.85	0.00	0.00	0.00	0.00											

Table 3-4. Activity status of impacted red-cockaded woodpecker (RCW) clusters from 2004-2008, **Alternative B**, Fort Benning, Georgia.

	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
<b>A06-01</b>	PBG	PBG	PBG	PBG	PBG
<b>A07-01</b>	PBG	SOL	PBG	PBG	PBG
<b>A08-01</b>	PBG	PBG	PBG	PBG	PBG
<b>A08-02a</b>	PBG	PBG	PBG	PBG	PBG
<b>A08-03</b>	PBG	PBG	PBG	PBG	PBG
<b>A08-04</b>	INA	INA	INA	PBG	PBG
<b>A09-03R</b>	PBG	PBG	PBG	PBG	PBG
<b>A09-04R</b>	PBG	PBG	PBG	PBG	PBG
<b>A09-05</b>	PBG	PBG	PBG	PBG	PBG
<b>A14-03R</b>	PBG	PBG	PBG	PBG	PBG
<b>A17-01</b>	N/A	N/A	N/A	PBG	PBG
<b>A17-02</b>	PBG	PBG	PBG	PBG	PBG
<b>A17-03</b>	PBG	PBG	PBG	PBG	PBG
<b>A17-04</b>	PBG	PBG	PBG	PBG	PBG
<b>A17-05</b>	PBG	PBG	PBG	PBG	PBG
<b>A17-06</b>	PBG	PBG	PBG	PBG	PBG
<b>A17-07</b>	PBG	PBG	PBG	PBG	PBG
<b>A17-08</b>	PBG	PBG	PBG	PBG	PBG
<b>A17-11R</b>	PBG	PBG	PBG	PBG	PBG
<b>A17-12R</b>	PBG	PBG	PBG	PBG	PBG
<b>A17-13</b>	PBG	PBG	PBG	PBG	PBG
<b>A17-14a</b>	PBG	PBG	PBG	PBG	PBG
<b>A17-14b</b>	N/A	N/A	N/A	N/A	PBG
<b>A20-04</b>	PBG	PBG	PBG	PBG	PBG
<b>A20-06</b>	PBG	PBG	PBG	PBG	PBG
<b>BB03-01R</b>	PBG	PBG	PBG	PBG	PBG
<b>BB04-01R</b>	PBG	PBG	PBG	PBG	PBG
<b>BB05-01R</b>	PBG	PBG	PBG	PBG	PBG
<b>C01-02</b>	PBG	PBG	PBG	PBG	PBG
<b>C01-03</b>	PBG	PBG	PBG	PBG	PBG
<b>C01-06</b>	PBG	PBG	PBG	PBG	PBG
<b>C02-02</b>	PBG	PBG	PBG	PBG	PBG
<b>D05-02R</b>	PBG	PBG	PBG	PBG	PBG
<b>D05-04R</b>	N/A	PBG	PBG	PBG	PBG
<b>D06-01R</b>	PBG	PBG	PBG	PBG	PBG
<b>D08-01R</b>	PBG	SOL	SOL	PBG	PBG
<b>D10-01</b>	PBG	PBG	PBG	PBG	PBG
<b>D11-01</b>	PBG	PBG	PBG	PBG	PBG
<b>D11-02</b>	PBG	PBG	PBG	PBG	PBG

**PBG** - potential breeding group

**INA** - inactive

**SOL** -solitary RCW

**N/A** - group does not exist or is not monitored

**CAP** - captured (the cluster of cavity trees of 1 group is "captured" by an adjacent group)

Table 3-4 (cont.). Activity status of impacted red-cockaded woodpecker (RCW) clusters from 2004-2008, **Alternative B**, Fort Benning, Georgia.

	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
<b>D12-01</b>	PBG	PBG	PBG	PBG	PBG
<b>D16-01</b>	PBG	PBG	PBG	PBG	PBG
<b>D16-02</b>	PBG	PBG	PBG	PBG	PBG
<b>D17-01</b>	PBG	PBG	PBG	PBG	PBG
<b>D17-03</b>	PBG	PBG	PBG	PBG	PBG
<b>D17-04R</b>	PBG	PBG	PBG	PBG	PBG
<b>E02-01</b>	PBG	PBG	PBG	PBG	PBG
<b>E04-01</b>	PBG	PBG	PBG	PBG	PBG
<b>F02-01R</b>	INA	SOL	PBG	PBG	PBG
<b>HCC-08R</b>	INA	SOL	SOL	SOL	PBG
<b>HCC-10R</b>	PBG	PBG	PBG	PBG	PBG
<b>HCC-11R</b>	CAP by A07-01	PBG	PBG	PBG	PBG
<b>J01-02R</b>	SOL	PBG	PBG	PBG	PBG
<b>J02-02R</b>	PBG	PBG	PBG	PBG	PBG
<b>J06-03</b>	PBG	PBG	PBG	PBG	PBG
<b>K02-01</b>	PBG	PBG	PBG	PBG	PBG
<b>K08-03</b>	PBG	PBG	PBG	PBG	PBG
<b>K08-04</b>	PBG	PBG	PBG	PBG	PBG
<b>K09-01</b>	PBG	PBG	PBG	PBG	PBG
<b>K09-02R</b>	PBG	PBG	PBG	PBG	PBG
<b>K09-03R</b>	PBG	PBG	PBG	PBG	PBG
<b>K11-02</b>	PBG	PBG	PBG	PBG	PBG
<b>K11-04R</b>	INA	INA	INA	PBG	PBG
<b>K12-01</b>	PBG	PBG	PBG	PBG	PBG
<b>K13-02</b>	PBG	PBG	PBG	PBG	PBG
<b>K13-04</b>	PBG	PBG	PBG	PBG	PBG
<b>K13-05R</b>	PBG	PBG	PBG	PBG	PBG
<b>K13-06</b>	PBG	PBG	PBG	PBG	PBG
<b>K21-02R</b>	PBG	INA	PBG	PBG	PBG
<b>K21-05R</b>	N/A	N/A	N/A	PBG	PBG
<b>KPR-01</b>	PBG	PBG	PBG	PBG	PBG
<b>L02-02R</b>	INA	INA	PBG	PBG	PBG
<b>L03-01</b>	PBG	PBG	PBG	PBG	PBG
<b>M01-01</b>	PBG	PBG	PBG	PBG	PBG
<b>M08-01</b>	PBG	PBG	PBG	PBG	PBG
<b>M08-02a</b>	PBG	PBG	PBG	PBG	PBG
<b>M08-02b</b>	N/A	PBG	PBG	PBG	PBG
<b>M08-04R</b>	PBG	PBG	PBG	PBG	PBG
<b>M08-05R</b>	PBG	PBG	PBG	SOL	PBG

**PBG** - potential breeding group

**INA** - inactive

**SOL** -solitary RCW

**N/A** - group does not exist or is not monitored

**CAP** - captured (the cluster of cavity trees of 1 group is "captured" by an adjacent group)

Table 3-4 (cont.). Activity status of impacted red-cockaded woodpecker (RCW) clusters from 2004-2008, **Alternative B**, Fort Benning, Georgia.

	2004	2005	2006	2007	2008
<b>N01-02</b>	PBG	PBG	PBG	PBG	PBG
<b>O01-01</b>	PBG	PBG	PBG	PBG	PBG
<b>O01-02</b>	PBG	PBG	PBG	PBG	PBG
<b>O01-03</b>	PBG	PBG	PBG	CAP by 003-01	PBG
<b>O01-04R</b>	PBG	PBG	PBG	SOL	PBG
<b>O02-01R</b>	PBG	PBG	PBG	PBG	PBG
<b>O03-01</b>	INA	PBG	PBG	PBG	PBG
<b>O03-02</b>	PBG	PBG	PBG	PBG	PBG
<b>O03-03</b>	PBG	PBG	PBG	PBG	PBG
<b>O03-04</b>	PBG	PBG	PBG	PBG	PBG
<b>O03-05</b>	PBG	PBG	PBG	PBG	PBG
<b>O03-06R</b>	PBG	PBG	PBG	PBG	PBG
<b>O03-07</b>	N/A	N/A	PBG	PBG	PBG
<b>O04-01</b>	PBG	CAP by O04-03b	PBG	PBG	PBG
<b>O04-03a</b>	PBG	PBG	PBG	PBG	PBG
<b>O04-03b</b>	N/A	PBG	PBG	PBG	PBG
<b>O05-01</b>	PBG	PBG	PBG	PBG	PBG
<b>O05-02</b>	PBG	PBG	PBG	PBG	PBG
<b>O05-03R</b>	PBG	PBG	PBG	PBG	PBG
<b>O07-01R</b>	PBG	PBG	PBG	PBG	PBG
<b>O07-03R</b>	PBG	PBG	INA	PBG	PBG
<b>O08-01</b>	PBG	PBG	PBG	PBG	PBG
<b>O08-02</b>	PBG	PBG	PBG	PBG	PBG
<b>O09-02</b>	PBG	PBG	PBG	PBG	PBG
<b>O10-01</b>	PBG	PBG	PBG	PBG	PBG
<b>O10-02</b>	PBG	PBG	PBG	PBG	PBG
<b>O10-03</b>	CAP by O13-01	PBG	PBG	PBG	CAP by O13-01
<b>O10-04</b>	PBG	PBG	PBG	PBG	PBG
<b>O11-01</b>	PBG	PBG	PBG	PBG	PBG
<b>O11-02R</b>	INA	INA	INA	INA	PBG
<b>O13-01</b>	PBG	INA	PBG	PBG	PBG
<b>O13-06R</b>	PBG	PBG	PBG	PBG	PBG
<b>O14-03R</b>	PBG	PBG	PBG	PBG	PBG
<b>O15-01</b>	PBG	PBG	PBG	PBG	PBG
<b>O15-03</b>	PBG	PBG	PBG	PBG	PBG
<b>Q02-02</b>	PBG	PBG	PBG	PBG	PBG
<b>Q02-03</b>	PBG	PBG	PBG	PBG	PBG
<b>Q02-04R</b>	PBG	PBG	PBG	PBG	PBG
<b>R02-01R</b>	PBG	PBG	PBG	PBG	PBG

**PBG** - potential breeding group

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**N/A** - group does not exist or is not monitored

**CAP** - captured (the cluster of cavity trees of 1 group is "captured" by an adjacent group)

Table 3-4 (cont.). Activity status of impacted red-cockaded woodpecker (RCW) clusters from 2004-2008, **Alternative B**, Fort Benning, Georgia.

	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
<b>S01-01</b>	PBG	PBG	PBG	PBG	PBG
<b>S02-01R</b>	PBG	PBG	PBG	PBG	PBG
<b>S03-01R</b>	N/A	INA	INA	PBG	PBG
<b>SHC-02</b>	PBG	PBG	PBG	SOL	SOL
<b>T02-01</b>	INA	INA	SOL	PBG	PBG
<b>T02-02R</b>	CAP BY J02-02	PBG	PBG	PBG	PBG

**PBG** - potential breeding group

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**SOL** -solitary RCW

**N/A** - group does not exist or is not monitored

**CAP** - captured (the cluster of cavity trees of 1 group is "captured" by an adjacent group)

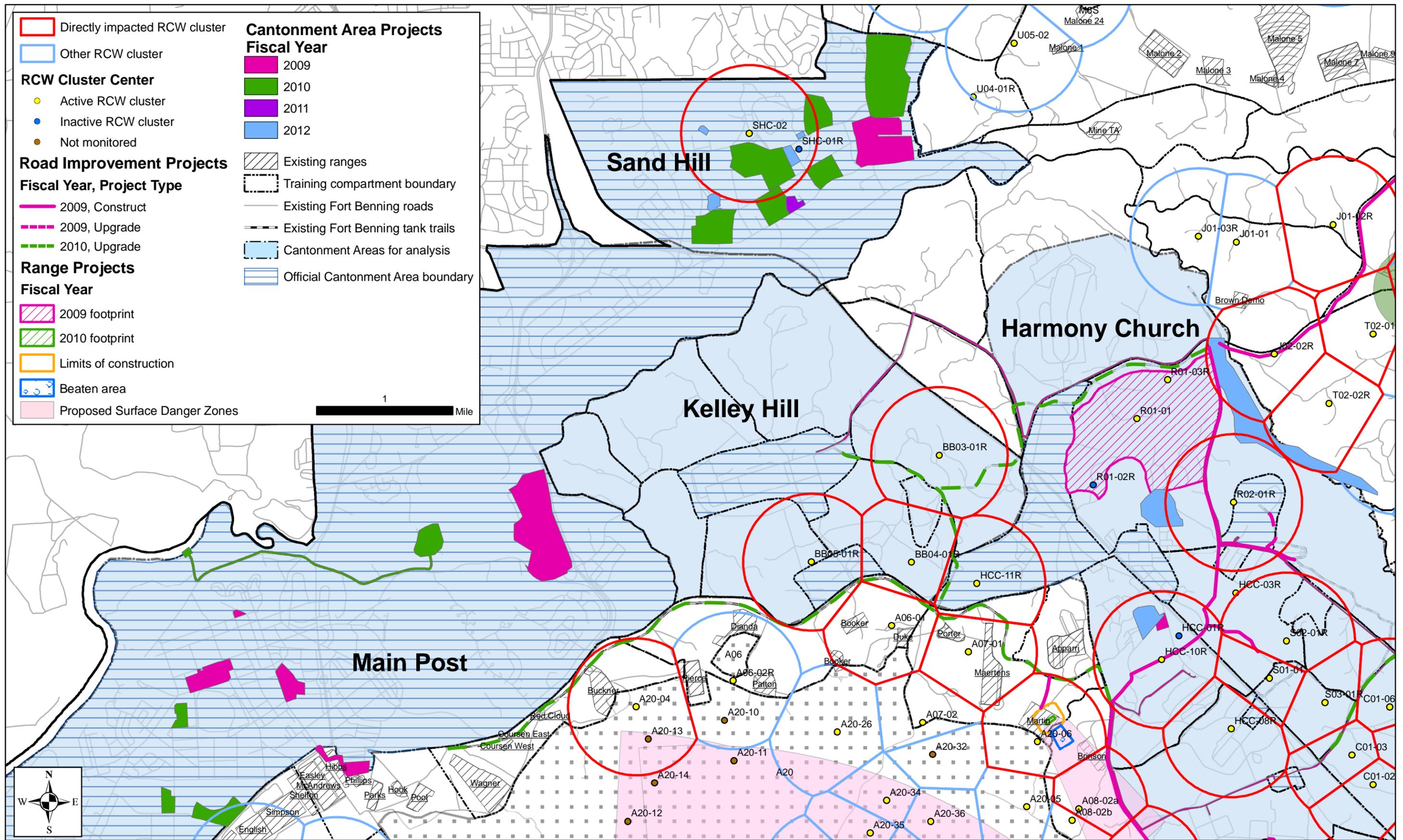


Figure 3-3. Fiscal years 2009-2012 construction activities and operational impacts for proposed projects located within red-cockaded woodpecker (RCW) clusters in the Cantonment Area for the Maneuver Center of Excellence, **Alternative B**, Fort Benning, Georgia.

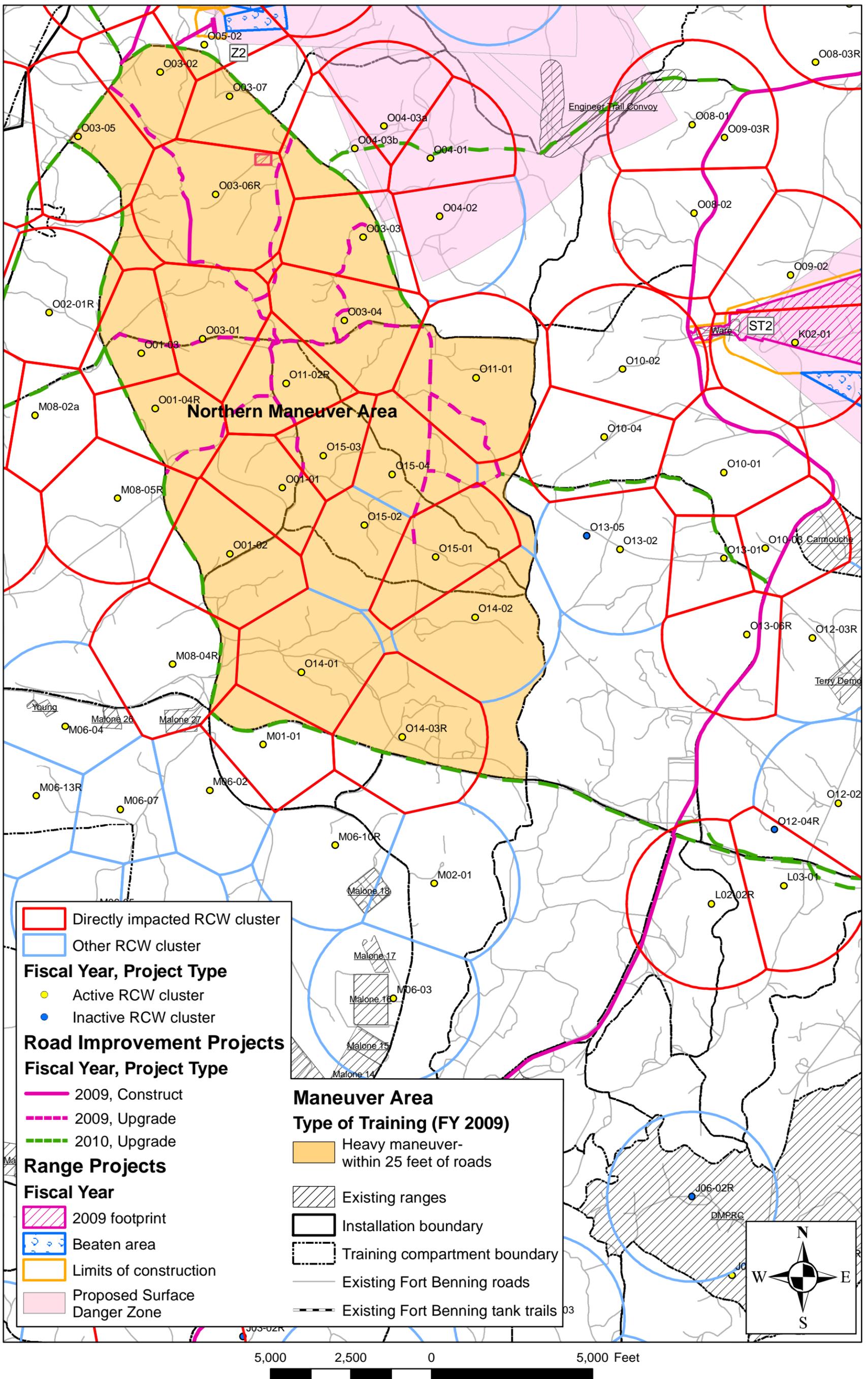


Figure 3-4. Fiscal years 2009-2010 construction activities and operational impacts for proposed projects located within red-cockaded woodpecker (RCW) clusters in the Northern Ranges for the Maneuver Center of Excellence, **Alternative B**, Fort Benning, Georgia.

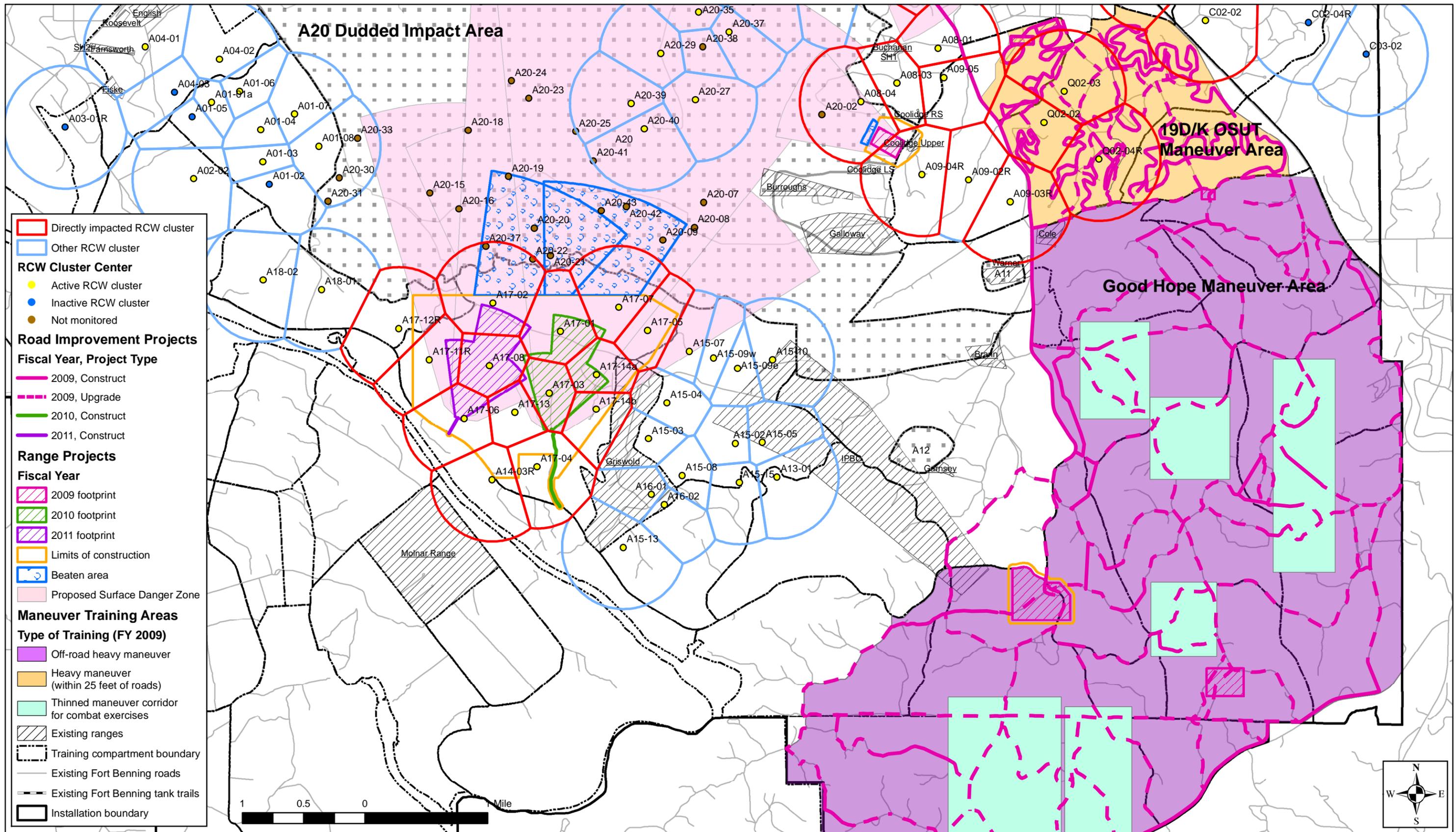


Figure 3-5. Fiscal years 2009-2011 construction activities and operational impacts for proposed projects located within red-cockaded woodpecker (RCW) clusters in the Southern Ranges for the Maneuver Center of Excellence, **Alternative B**, Fort Benning, Georgia.

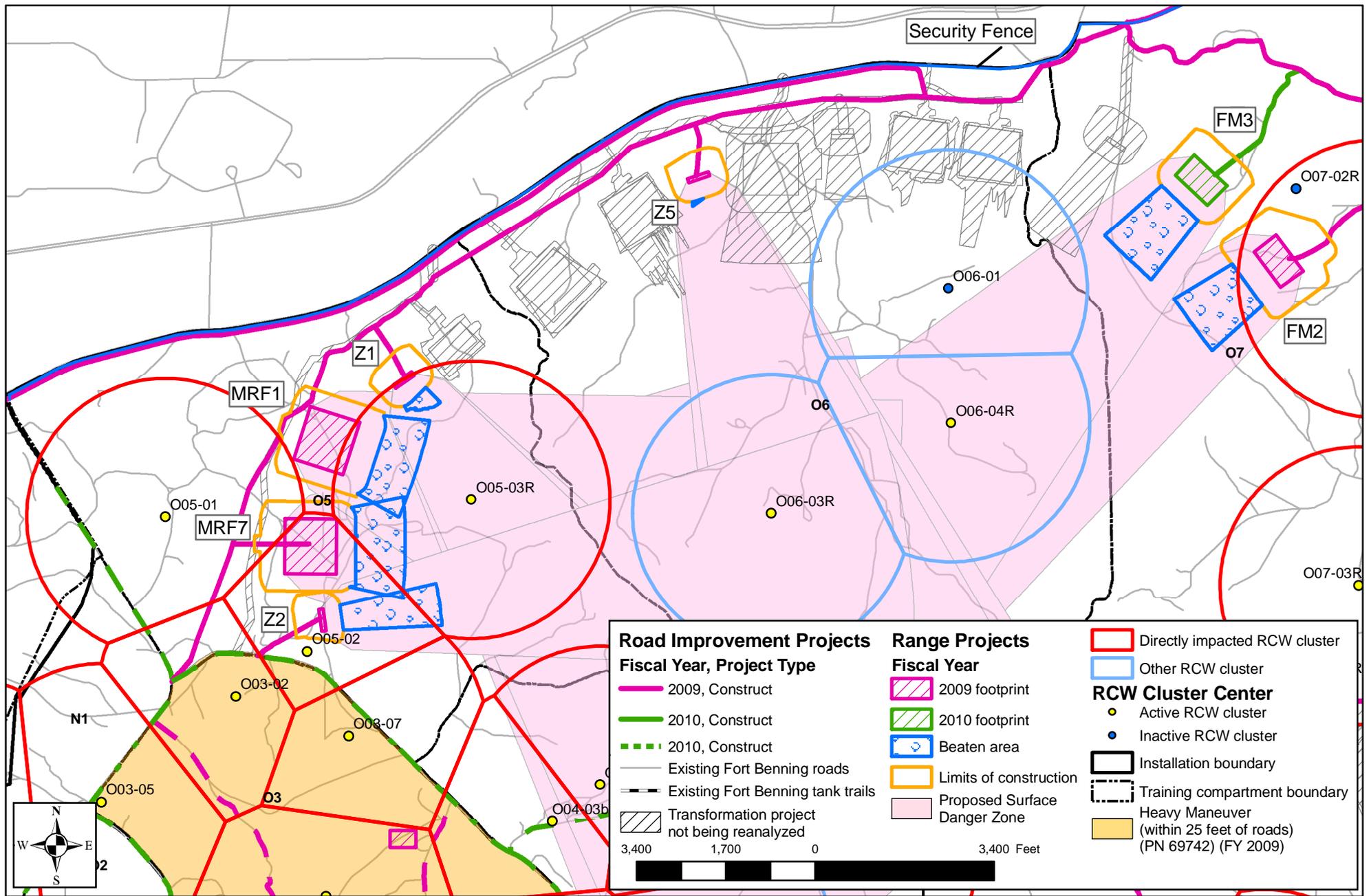


Figure 3-6. Fiscal years 2009-2010 construction activities and operational impacts for proposed projects located in the Oscar Small Arms Range Complex for the Maneuver Center of Excellence, Alternative B, Fort Benning, Georgia. Also shown are the current locations of range projects analyzed in the Transformation Biological Assessment that are not being reanalyzed for this action.

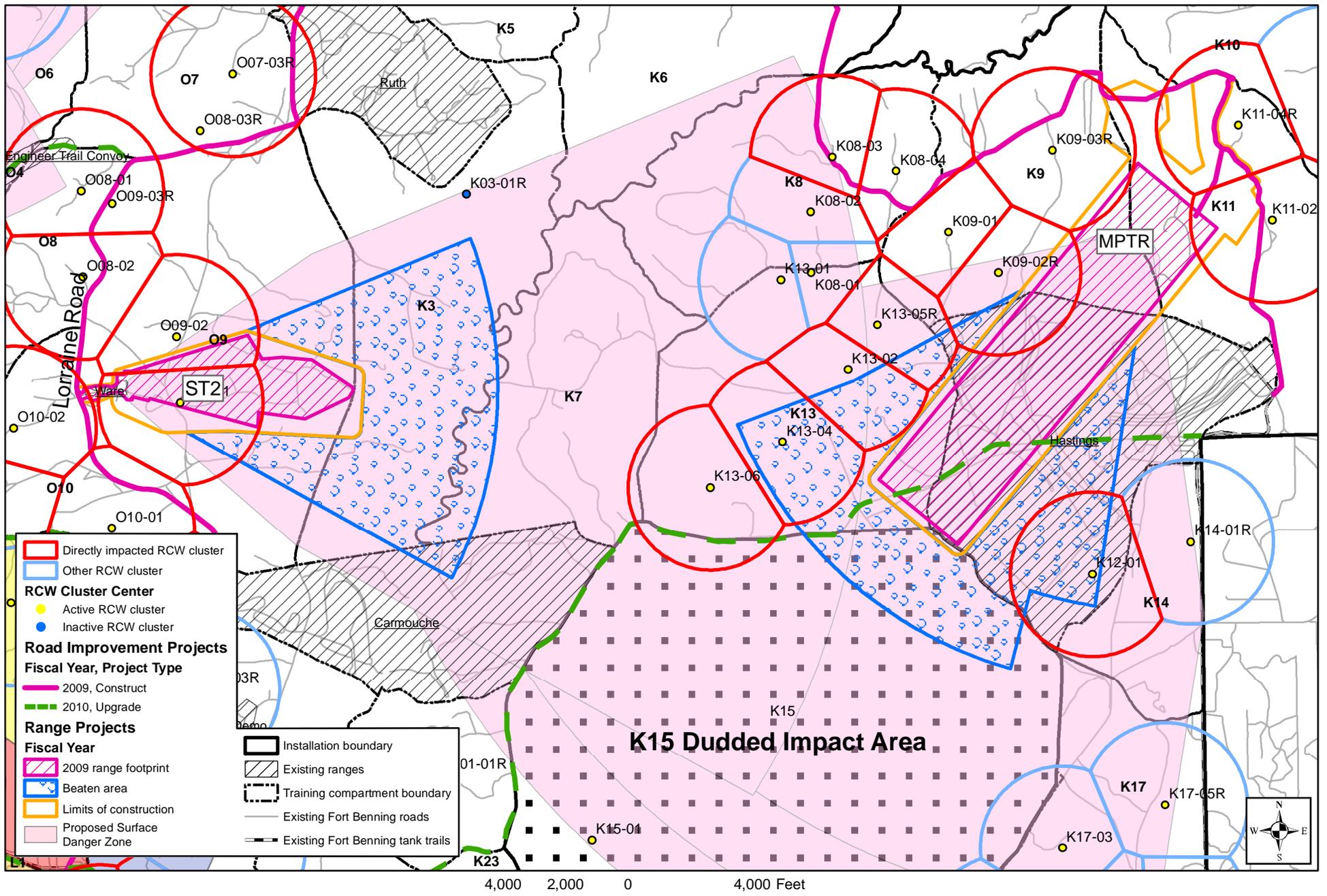


Figure 3-7. Fiscal years 2009-2010 construction activities and operational impacts for proposed projects located in the Northeastern Ranges for the Maneuver Center of Excellence, Alternative B, Fort Benning, Georgia.



PRE-PROJECT

POST-PROJECT

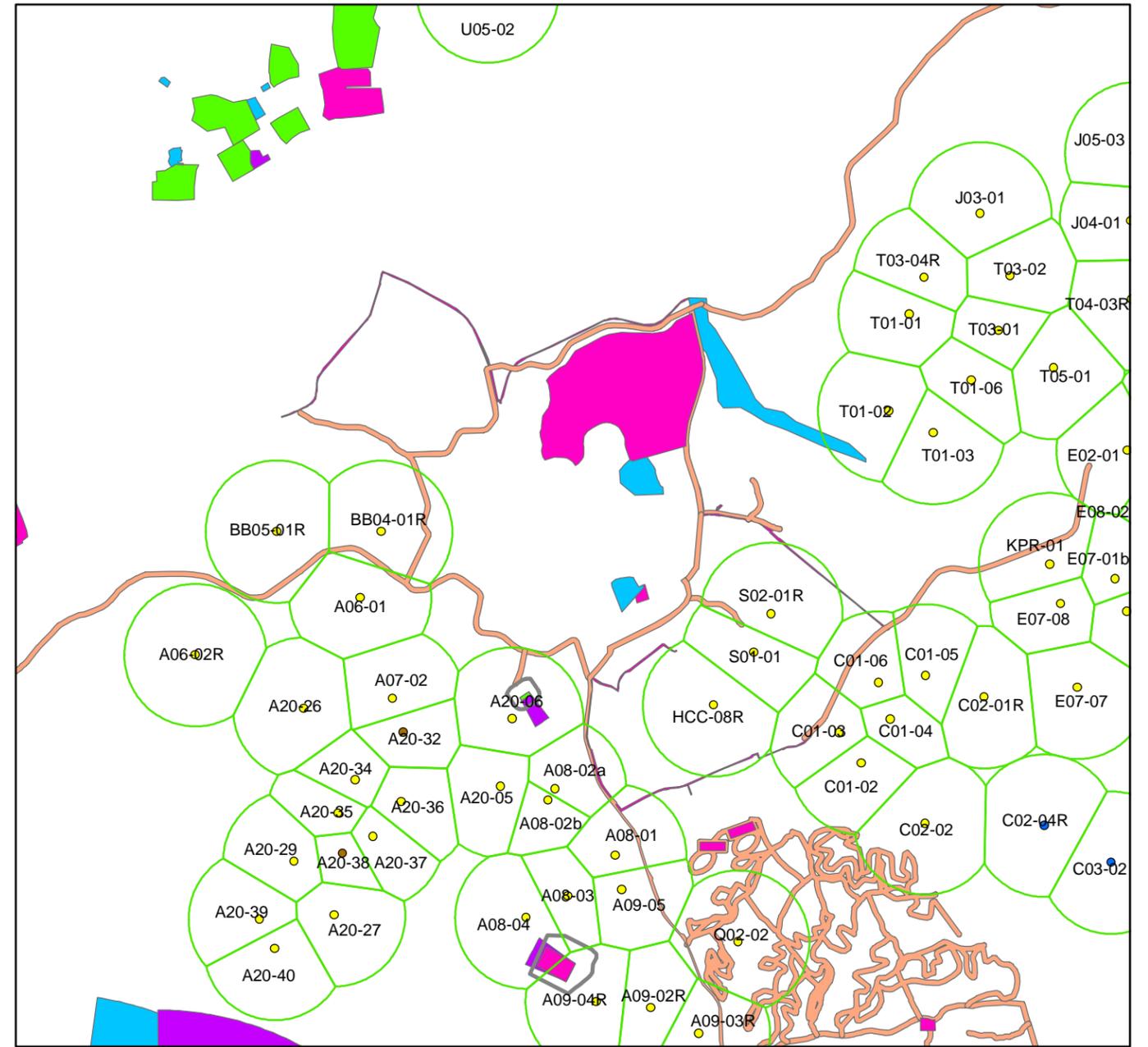
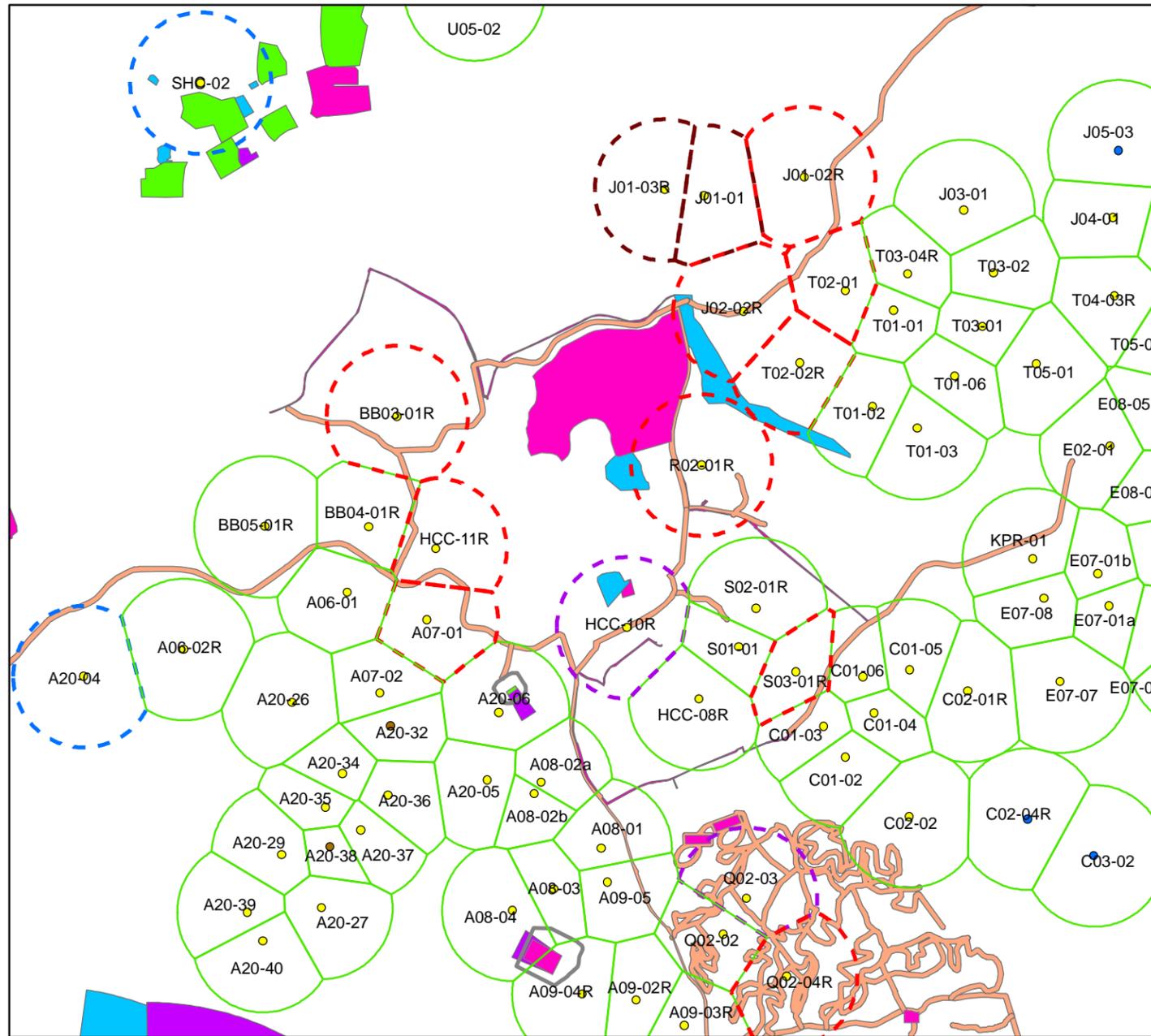
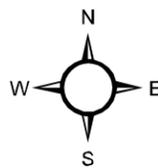
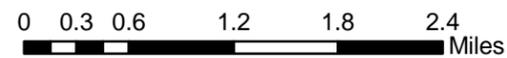


Figure 3-9. Pre- and post- project density of red-cockaded woodpecker (RCW) clusters as a result of Cantonment projects (FY 2009 - 12) and small ranges and associated beaten areas for Alternative B at Fort Benning, Georgia.



Legend

RCW Cluster

- Active
- Inactive
- Not monitored

Cantonment and Range Projects

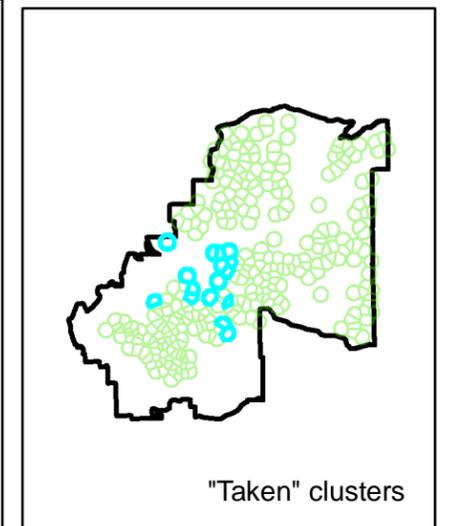
Fiscal Year

- 2009
- 2010
- 2011
- 2012

RCW Foraging Partition

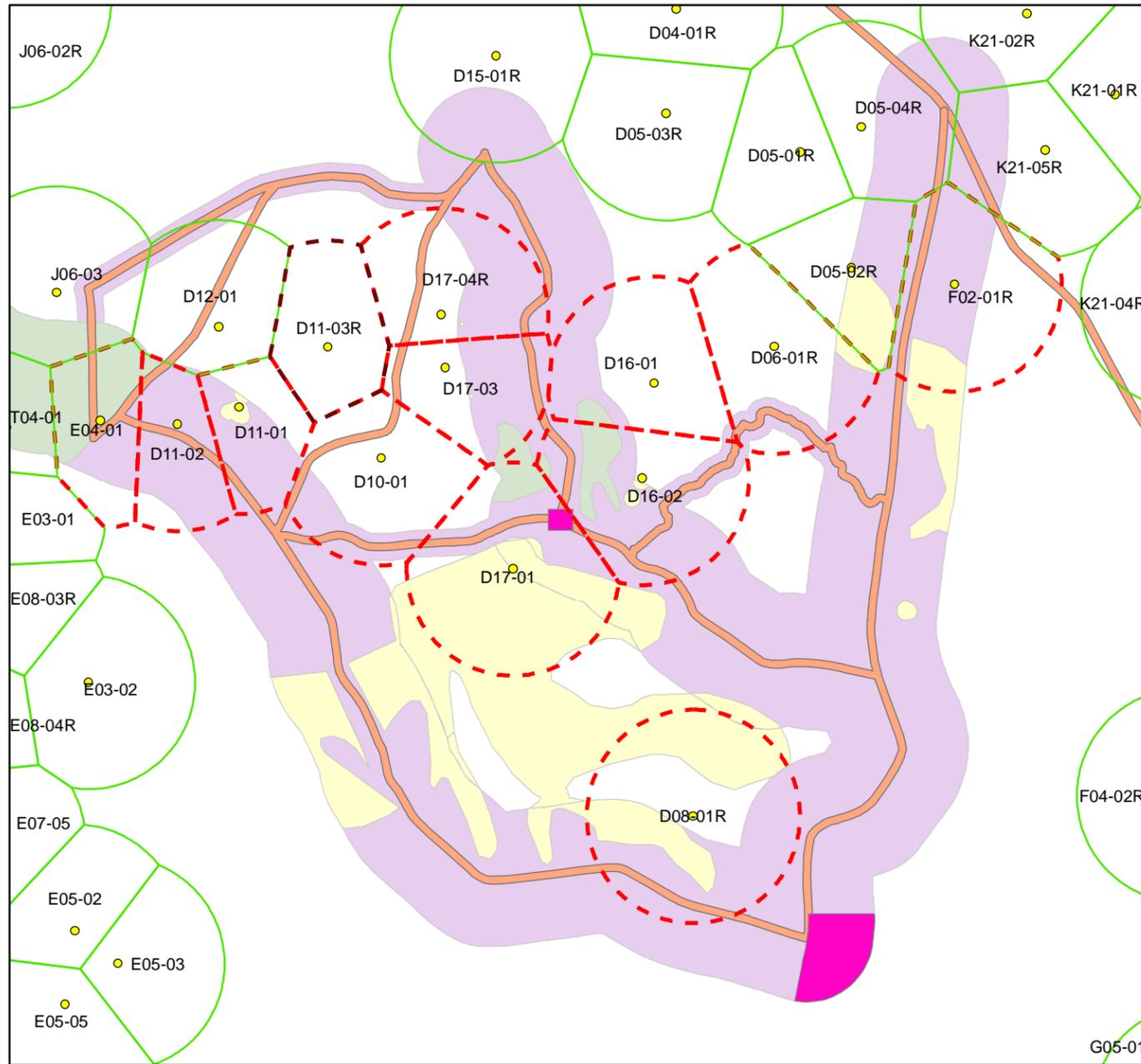
- - - Partitions "taken" by project
- - - Partitions "taken" by harassment
- - - Partitions "taken" by group impact
- - - Partitions "taken" by neighborhood impact
- RCW partition boundary

- Construction limits
- Installation Training Area Roads





PRE-PROJECT



POST-PROJECT

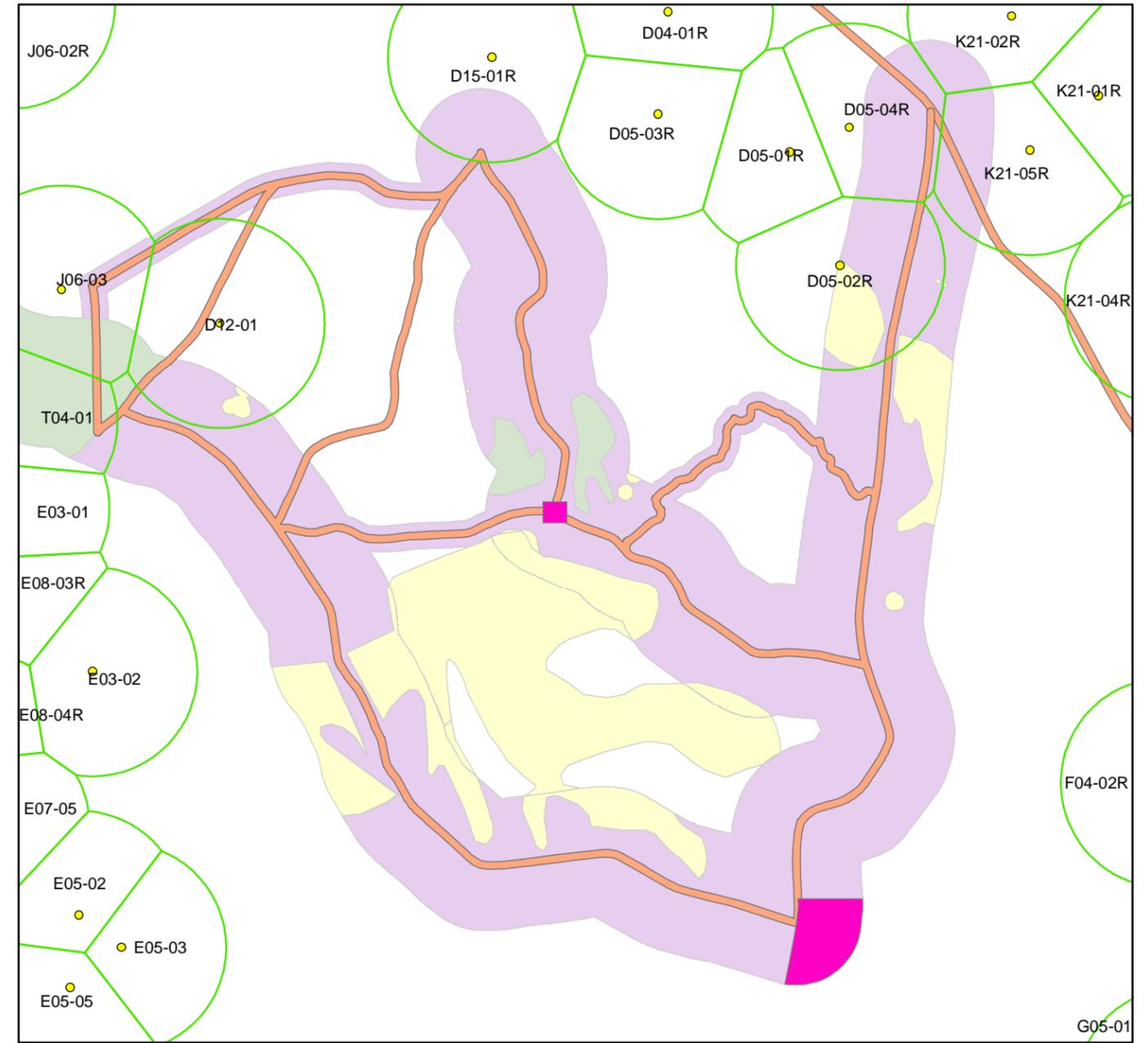
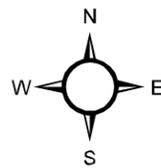
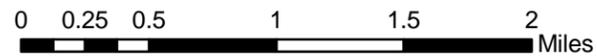


Figure 3-11. Pre- and post- project density of red-cockaded woodpecker (RCW) clusters as a result of Installation Training Area Roads and Southern Maneuver Area Training Impacts, Alternative B, Fort Benning, Georgia.



Legend

RCW Cluster

- Active
- Inactive
- Not monitored

RCW Foraging Partition

- - - Partitions "taken" by project
- - - Partitions "taken" by neighborhood impact
- RCW partition boundary

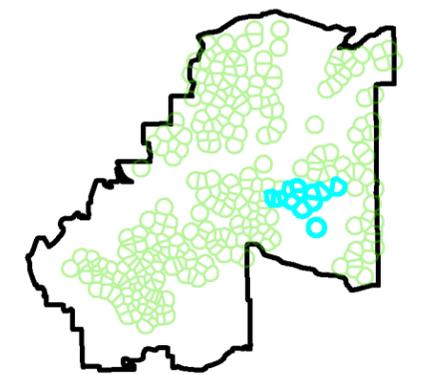
Armor School Training Areas

- Dismounted Only
- Wheeled Vehicle Only
- Heavy Maneuver - Off-Road

Range Projects Fiscal Year

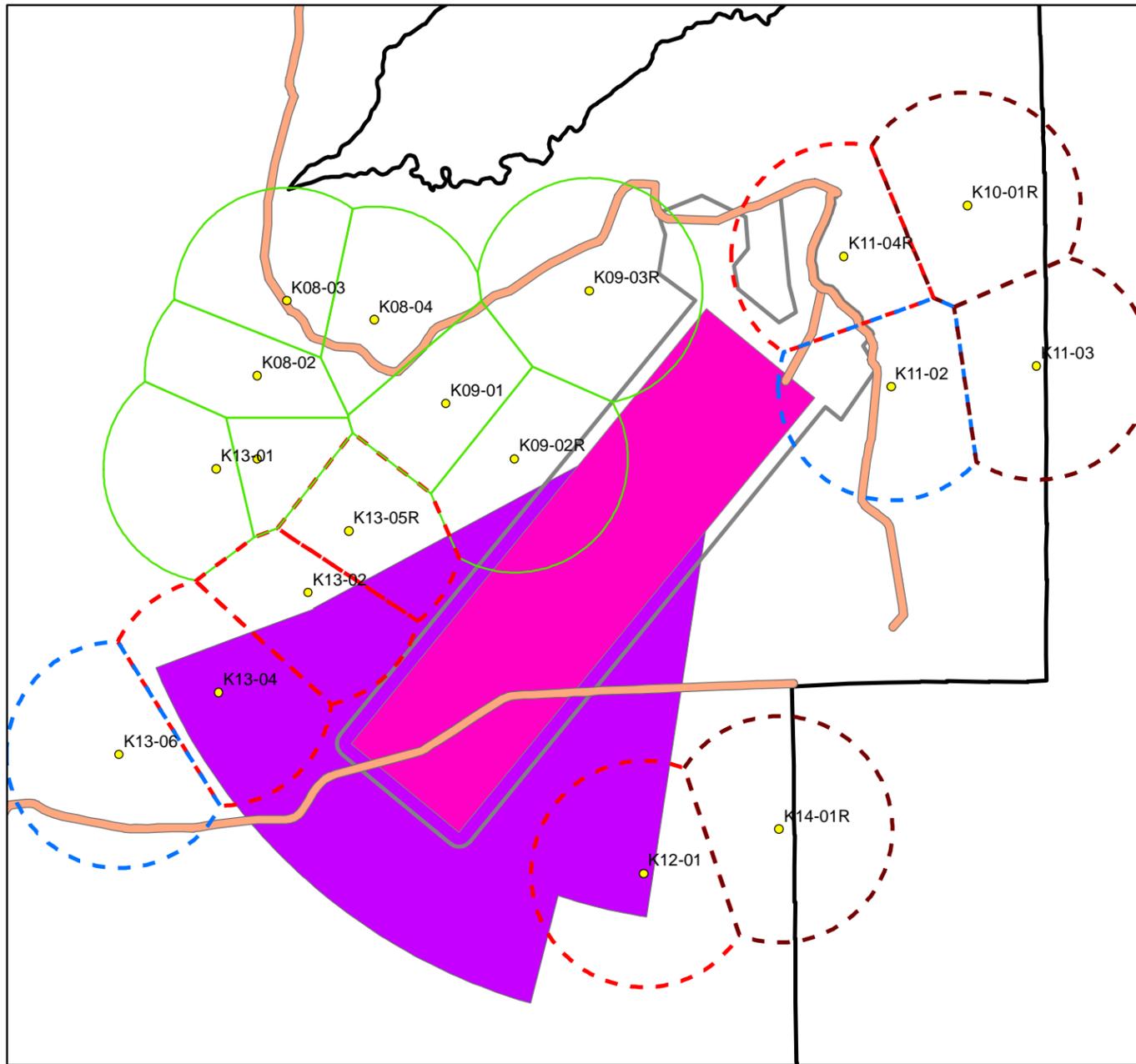
- 2009

- Installation Training Area Roads



"Taken" clusters

PRE-PROJECT



POST-PROJECT

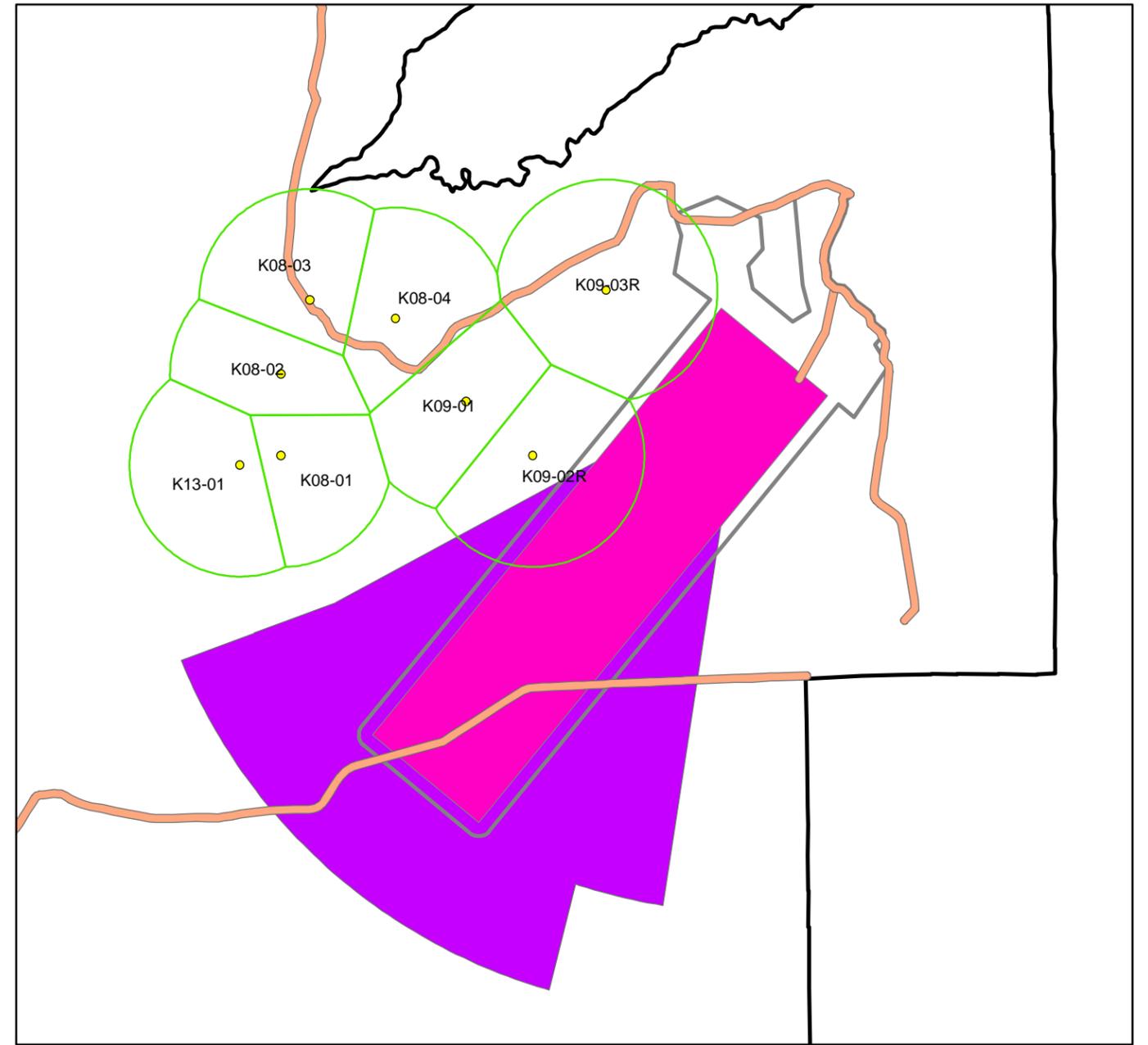
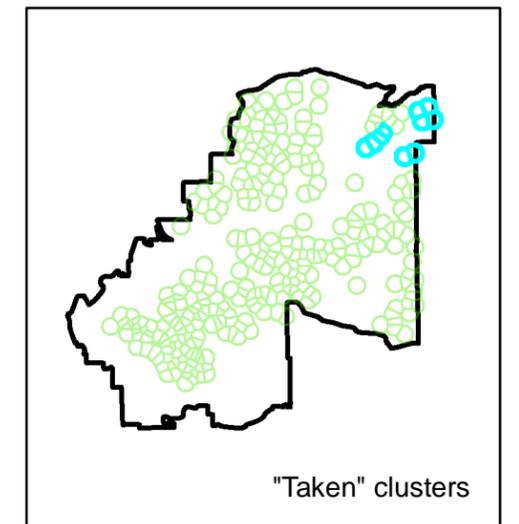
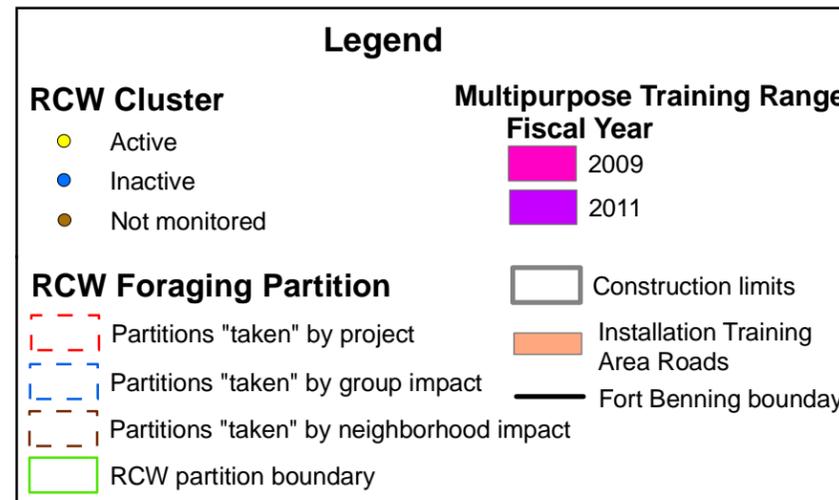
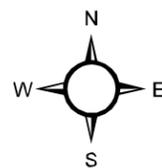
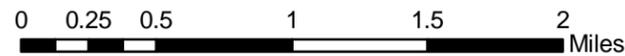
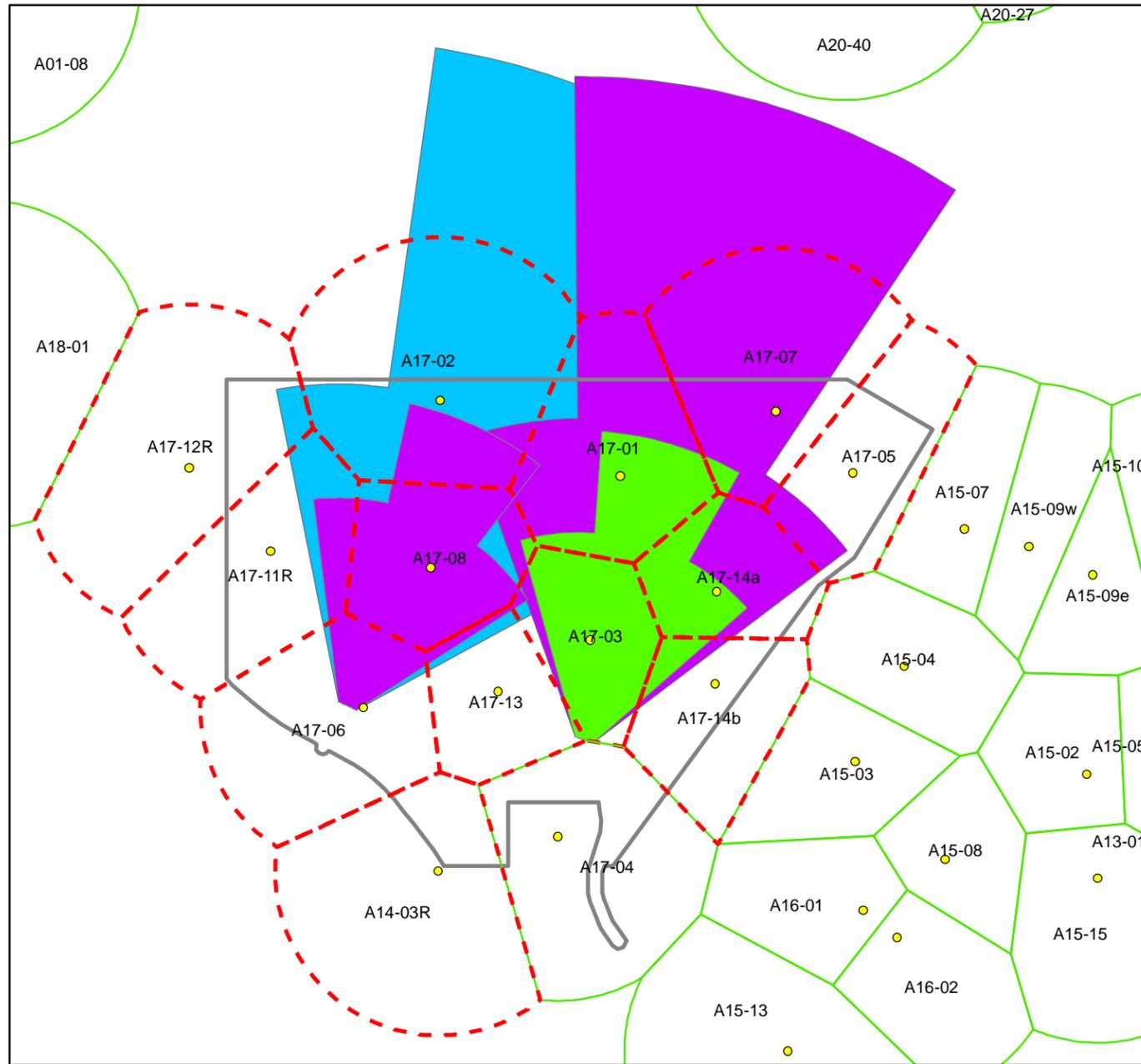


Figure 3-12. Pre- and post- project density of red-cockaded woodpecker (RCW) clusters as a result of Installation Training Area Roads and the Multipurpose Training Range and associated beaten area, Alternative B, Fort Benning, Georgia.



PRE-PROJECT



POST-PROJECT

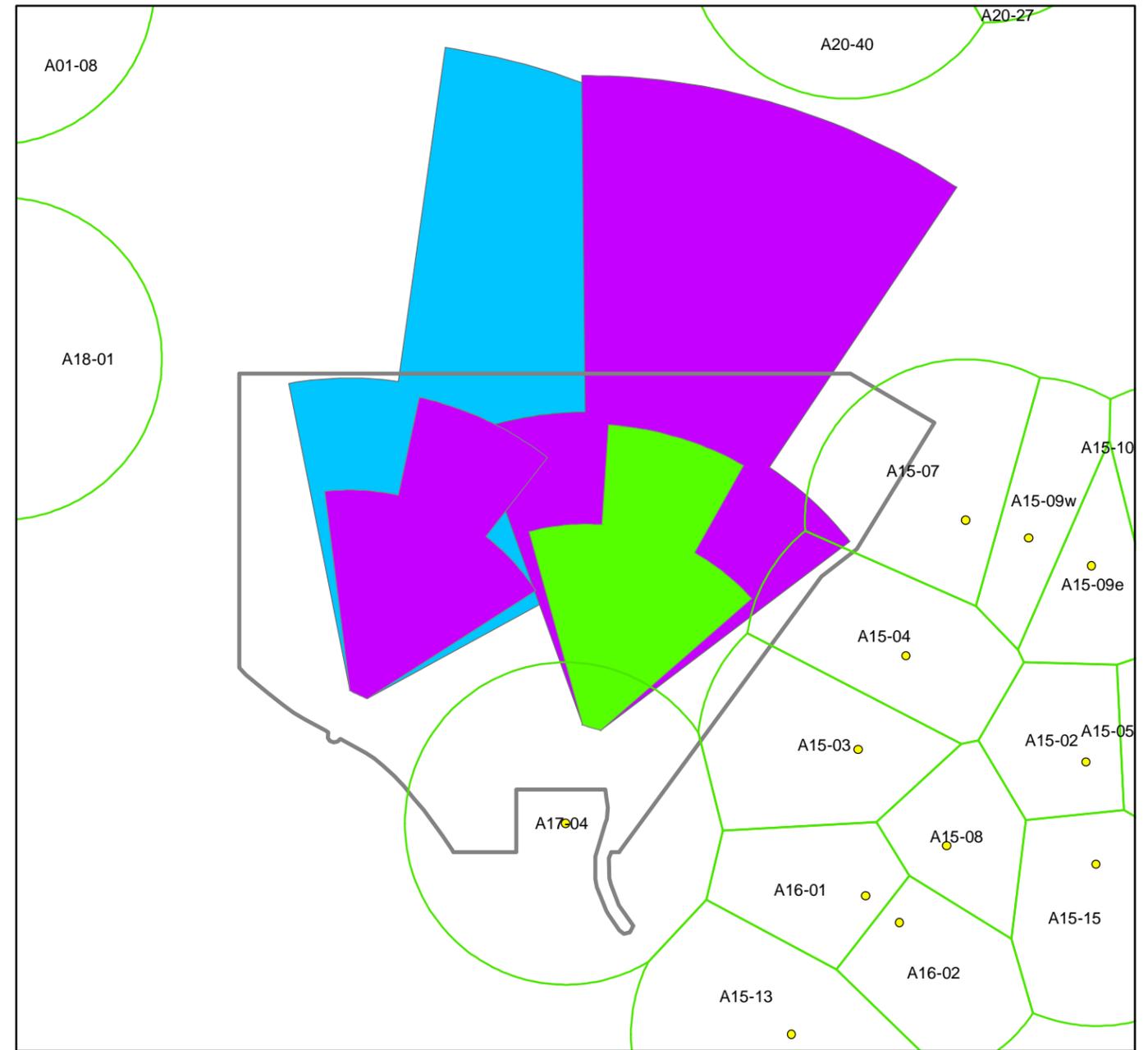
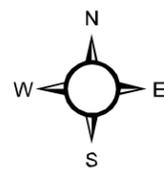
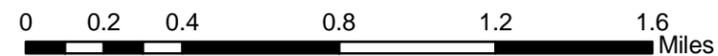


Figure 3-13. Pre- and post- project density of red-cockaded woodpecker (RCW) clusters as a result of the Multipurpose Machine Gun Ranges and associated beaten areas (PN 68733, PN 65070) for Alternative B at Fort Benning, Georgia.



Legend

RCW Cluster

- Active
- Inactive
- Not monitored

RCW Foraging Partition

- Partitions "taken" by project
- RCW partition boundary

Multipurpose Machine Gun Ranges

Fiscal Year

- 2010
- 2011
- 2012

- Construction limits

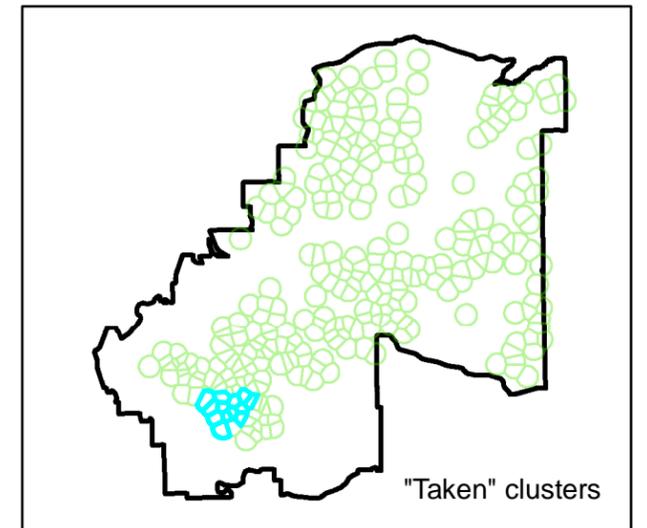


Table 3-5. Direct project impacts for active red-cockaded woodpecker (RCW) clusters for Fiscal Year 2009 using the Standard for Managed Stability (SMS) (USFWS 2003a), **Alternative B** MCOE, Fort Benning, Georgia.

Project Number	Project Name	Location	Cluster Impacted	Total Acres of RCW Habitat Removed	Total BA of RCW Habitat Removed	SMS Foraging Habitat Removals						Habitat Removed Within the A20 Impact Area	Cavity Trees Taken by Project	Cavity Trees With Impacts Within 50 feet	Cavity Trees With Impacts Within 51 - 200 feet	Disturbance due to Noise, Pedestrian or Vehicular Traffic (Y/N)	
						Suitable Habitat Removed		Potentially Suitable Habitat Removed		Future Potential Habitat Removed							
						Acres	BA	Acres	BA	Acres	BA						
64551	Multi-purpose Training Range (MPTR)	Northern Ranges	K09-02R	30.87	834.77	12.94	469.82	0.00	0.00	17.93	364.95	-	0	0	0	N	
			K09-03R	1.47	50.63	1.47	50.63	0.00	0.00	0.00	0.00	-	0	0	0	N	
64551	Construction Limits for Multi-purpose Training Range (MPTR)	Northern Ranges	K09-02R	10.99	300.86	6.19	250.46	0.00	0.00	4.80	50.40	-	0	0	0	N	
			K11-02	53.90	2,042.28	47.97	1,894.03	0.00	0.00	5.93	148.25	-	0	0	0	N	
			K11-04R	56.28	1,048.55	5.60	226.80	0.00	0.00	50.68	821.75	-	0	0	0	N	
64551	Access Road for MPTR	Northern Ranges	K11-02	1.54	62.37	1.54	62.37	0.00	0.00	0.00	0.00	-	0	0	0	N	
			K11-04R	4.26	135.33	1.86	75.33	0.00	0.00	2.40	60.00	-	0	0	0	N	
64797	Access Road for Drivers Training Area	Harmony Church	R02-01R	6.11	172.38	2.68	88.44	0.00	0.00	3.43	83.94	-	0	0	0	N	
65033	Fire and Movement Range (FM2)	Oscar Ranges	O07-01R	8.19	210.90	0.00	0.00	0.00	0.00	8.19	210.90	-	0	0	0	N	
	Construction Limits for FM2		O07-01R	26.58	564.70	0.00	0.00	1.28	50.56	25.30	514.14	-	0	0	0	N	
	Access Road for FM2		O07-01R	12.58	516.06	0.00	0.00	10.85	466.75	1.73	49.31	-	0	0	0	N	
65035	Basic 10M-25M Firing Range (Z1)	Oscar Ranges	O05-03R	0.50	17.22	0.50	17.22	0.00	0.00	0.00	0.00	-	0	0	0	N	
	Construction Limits for Z1		O05-03R	3.60	128.01	3.60	128.01	0.00	0.00	0.00	0.00	-	0	0	0	N	
65036	Construction Limits for Basic 10M-25M Firing Range (Z2)	Oscar Ranges	O05-02	4.29	149.46	2.47	109.41	0.39	13.55	1.43	26.50	-	0	0	0	N	
	Access Road for Z2		003-02	0.42	17.28	0.42	17.28	0.00	0.00	0.00	0.00	-	0	0	0	N	
			O05-02	5.24	234.63	5.24	234.63	0.00	0.00	0.00	0.00	-	0	0	0	N	
65043	Modified Record Fire Range (MRF1)	Oscar Ranges	O05-03R	1.62	0.00	0.00	0.00	0.00	0.00	1.62	0.00	-	0	0	0	N	
	Construction Limits for MRF1		O05-01	0.71	36.34	0.00	0.00	0.00	0.00	0.71	36.34	-	0	0	0	N	
			O05-03R	11.19	224.10	5.40	224.10	0.00	0.00	5.79	0.00	-	0	0	0	N	
65049	Modified Record Fire Range (MRF7)	Oscar Ranges	O05-01	0.76	36.19	0.76	36.19	0.00	0.00	0.00	0.00	-	0	0	0	N	
	Construction Limits for MRF7		O05-02	16.78	614.72	2.86	136.19	0.89	83.66	13.03	394.87	-	0	0	0	N	
			O05-01	8.92	488.31	7.55	359.53	1.37	128.78	0.00	0.00	-	0	0	0	N	
			O05-02	12.83	587.11	9.14	435.25	0.94	88.36	2.75	63.50	-	0	0	0	N	
	Access Road for MRF7		O05-01	2.29	109.05	2.29	109.05	0.00	0.00	0.00	0.00	-	0	0	0	N	
65078	Anti-Armor Tracking & Live Fire Complex	Southern Ranges	A08-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.74	0	0	0	N	
			A08-04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.96	0	0	0	N	
			A09-04R	17.11	427.70	0.00	0.00	0.00	0.00	17.11	427.70	-	0	0	0	N	
65383	Stationary Tank Range (ST2)	Northern Ranges	K02-01	123.79	2,894.42	0.00	0.00	0.32	10.11	123.47	2,884.31	-	5	-	-	-	
			O09-02	30.40	783.52	0.00	0.00	0.00	0.00	30.40	783.52	-	0	0	0	N	
			O10-02	1.32	39.85	0.00	0.00	0.61	19.26	0.71	20.59	-	0	0	0	N	
			Construction Limits for ST2	K02-01	39.60	899.31	0.00	0.00	0.08	2.53	39.52	896.78	-	0	0	0	N
				O09-02	12.65	316.63	0.00	0.00	0.00	0.00	12.65	316.63	-	0	0	0	N
O10-02	1.82	55.08	0.00	0.00	0.89	28.11	0.93	26.97	-	0	0	0	N				

Table 3-5 (cont.). Direct project impacts for active red-cockaded woodpecker (RCW) clusters for Fiscal Year 2009 using the Standard for Managed Stability (SMS) (USFWS 2003a), **Alternative B** MCOE, Fort Benning, Georgia.

Project Number	Project Name	Location	Cluster Impacted	Total Acres of RCW Habitat Removed	Total BA of RCW Habitat Removed	SMS Foraging Habitat Removals						Habitat Removed Within the A20 Impact Area	Cavity Trees Taken by Project	Cavity Trees With Impacts Within 50 feet	Cavity Trees With Impacts Within 51 - 200 feet	Disturbance due to Noise, Pedestrian or Vehicular Traffic (Y/N)
						Suitable Habitat Removed		Potentially Suitable Habitat Removed		Future Potential Habitat Removed						
						Acres	BA	Acres	BA	Acres	BA					
65554	Construct Training Area Roads Paved	Installation - wide	J01-02R	6.36	229.97	2.88	229.97	0.00	0.00	3.48	0.00	-	0	0	0	N
			J02-02R	16.37	500.35	4.69	199.33	0.00	0.00	11.68	301.02	-	5	3	0	Y
			J06-03	10.18	400.97	10.18	400.97	0.00	0.00	0.00	0.00	-	0	0	0	N
			K08-03	12.50	434.05	12.50	434.05	0.00	0.00	0.00	0.00	-	0	0	1	N
			K08-04	15.14	565.75	13.78	525.63	0.00	0.00	1.36	40.12	-	0	0	0	N
			K09-01	3.43	110.59	1.20	44.80	0.00	0.00	2.23	65.79	-	0	0	0	N
			K09-03R	15.75	403.28	7.76	264.50	0.61	30.50	7.38	108.28	-	0	0	0	N
			K11-02	18.22	500.73	9.83	390.90	0.00	0.00	8.39	109.83	-	0	0	5	N
			K11-04R	19.23	349.11	1.83	79.61	0.00	0.00	17.40	269.50	-	0	0	0	N
			L02-02R	17.33	609.76	13.68	525.04	2.12	63.60	1.53	21.12	-	0	0	0	N
			O03-02	6.97	154.45	2.25	111.32	0.00	0.00	4.72	43.13	-	0	0	0	N
			O05-01	7.10	351.64	6.72	324.56	0.38	27.08	0.00	0.00	-	0	0	0	N
			O07-03R	20.17	582.20	9.34	349.63	0.00	0.00	10.83	232.57	-	0	0	0	N
			O08-01	12.67	321.96	3.05	96.57	0.00	0.00	9.62	225.39	-	0	0	0	N
			O08-02	17.80	516.85	3.70	131.57	0.00	0.00	14.10	385.28	-	0	0	2	N
			O10-01	13.36	314.35	0.00	0.00	4.75	221.39	8.61	92.96	-	0	0	0	N
			O10-02	8.11	231.53	2.98	119.20	0.60	18.95	4.53	93.38	-	0	0	0	N
			O10-03	11.65	328.75	0.41	15.79	7.00	237.58	4.24	75.38	-	0	0	0	N
			O13-06R	18.43	514.98	7.35	273.50	0.00	0.00	11.08	241.48	-	0	1	1	Y
			R02-01R	4.87	179.73	1.84	80.30	0.39	29.47	2.64	69.96	-	0	0	0	N
T02-01	6.65	200.17	5.07	185.06	0.00	0.00	1.58	15.11	-	0	0	0	N			
65554	Construct Training Area Roads-OSUT Maneuver Corridor	Northern Ranges	J02-02R	16.37	500.35	4.69	199.33	0.00	0.00	11.68	301.02	-	5	3	0	Y
67457	Infrastructure Support, Incr. 2	Oscar Ranges	A08-01	2.73	75.82	1.33	52.54	0.00	0.00	1.40	23.28	-	0	0	0	N
			A08-02a	0.79	33.97	0.00	0.00	0.79	33.97	0.00	0.00	-	0	0	0	N
			C01-03	3.04	139.74	0.66	40.26	2.36	99.16	0.02	0.32	-	0	0	0	N
			C01-06	3.53	147.84	0.00	0.00	3.53	147.84	0.00	0.00	-	0	0	0	N
			HCC-08R	0.61	26.23	0.61	26.23	0.00	0.00	0.00	0.00	-	0	0	0	N
			HCC-10R	2.78	87.90	2.45	79.73	0.19	8.17	0.14	0.00	-	0	0	0	N
			R02-01R	3.91	189.16	1.77	80.22	1.08	81.60	1.06	27.34	-	0	0	0	N
			S02-01R	0.99	13.86	0.00	0.00	0.00	0.00	0.99	13.86	-	0	0	0	N
S03-01R	1.20	51.60	0.00	0.00	1.20	51.60	0.00	0.00	-	0	0	0	N			

Table 3-5 (cont.). Direct project impacts for active red-cockaded woodpecker (RCW) clusters for Fiscal Year 2009 using the Standard for Managed Stability (SMS) (USFWS 2003a), **Alternative B** MCOE, Fort Benning, Georgia.

Project Number	Project Name	Location	Cluster Impacted	Total Acres of RCW Habitat Removed	Total BA of RCW Habitat Removed	SMS Foraging Habitat Removals						Habitat Removed Within the A20 Impact Area	Cavity Trees Taken by Project	Cavity Trees With Impacts Within 50 feet	Cavity Trees With Impacts Within 51 - 200 feet	Disturbance due to Noise, Pedestrian or Vehicular Traffic (Y/N)
						Suitable Habitat Removed		Potentially Suitable Habitat Removed		Future Potential Habitat Removed						
						Acres	BA	Acres	BA	Acres	BA					
69358	Range Access Road - Good Hope MTA	Southern Ranges	A08-01	3.52	132.60	1.93	78.20	1.16	44.08	0.43	10.32	-	0	0	0	N
			A08-02a	2.30	84.50	1.80	63.00	0.50	21.50	0.00	0.00	-	0	0	0	N
			A09-03R	5.09	172.29	0.69	25.30	4.40	146.99	0.00	0.00	-	0	1	1	Y
			A09-05	4.18	150.10	3.83	140.60	0.15	4.50	0.20	5.00	-	0	1	1	Y
			HCC-10R	13.64	493.44	13.22	475.83	0.39	16.77	0.03	0.84	-	2	2	5	Y
			Q02-02	3.66	121.78	1.11	42.74	2.55	79.04	0.00	0.00	-	0	0	0	N
			S01-01	0.80	33.24	0.80	33.24	0.00	0.00	0.00	0.00	-	0	0	0	N
			S02-01R	6.80	286.32	6.80	286.32	0.00	0.00	0.00	0.00	-	0	0	0	N
69668	Good Hope Training Area Infrastructure	Southern Ranges	A09-03R	1.19	0.00	0.00	0.00	0.00	0.00	1.19	0.00	-	0	0	0	N
			Q02-04R	5.35	215.74	2.16	90.72	3.02	125.02	0.17	0.00	-	0	0	0	N
69668	Good Hope Maneuver Heavy Use Area	Southern Ranges	Q02-04R	6.14	265.46	0.00	0.00	6.14	265.46	0.00	0.00	-	0	0	0	N
69741	Alternate 19D/K OSUT Training Area	Northern Ranges	C02-02	27.82	618.33	16.56	591.28	0.00	0.00	11.26	27.05	-	0	0	0	N
			Q02-03	93.28	3,765.43	26.79	1,137.52	52.87	2,551.56	13.62	76.35	-	3	2	4	Y
			Q02-04R	99.85	2,373.22	43.10	1,524.64	16.75	766.18	40.00	82.40	-	1	1	3	Y
69741	Alternate 19D/K OSUT Training Area-Update and Construct Tank Trails	Northern Ranges	A09-03R	8.49	284.36	6.56	232.20	1.63	52.16	0.30	0.00	-	0	0	0	N
			C01-02	2.34	78.81	0.00	0.00	2.34	78.81	0.00	0.00	-	0	0	0	N
			Q02-02	48.35	1,769.56	16.17	610.55	30.37	1,159.01	1.81	0.00	-	0	0	3	N
69742	Northern Training Area Infrastructure	Northern Ranges	O11-01	13.63	222.46	3.38	144.54	1.46	70.92	8.79	7.00	-	0	0	0	N
			O11-02R	14.93	593.01	13.77	563.43	0.00	0.00	1.16	29.58	-	0	0	0	N
			O15-01	1.07	21.13	0.00	0.00	0.00	0.00	1.07	21.13	-	0	0	1	N
69742	Northern Training Area Infrastructure	Northern Ranges	O15-03	4.60	148.44	2.83	103.30	0.00	0.00	1.77	45.14	-	0	0	0	N
69742	Northern Training Area Infrastructure-Upgrade Tank Trails	Northern Ranges	M08-05R	1.04	20.84	0.00	0.00	0.30	9.49	0.74	11.35	-	0	0	0	N
			O01-01	2.31	95.33	2.31	95.33	0.00	0.00	0.00	0.00	-	0	0	4	N
			O01-03	10.47	350.74	1.52	68.40	3.58	161.10	5.37	121.24	-	0	0	4	N
			O01-04R	10.34	300.81	6.18	220.43	0.77	31.19	3.39	49.19	-	0	0	0	N
			O03-01	11.28	331.90	1.00	40.00	4.74	167.60	5.54	124.30	-	6	1	2	Y
			O03-02	10.75	379.23	6.87	271.55	0.00	0.00	3.88	107.68	-	0	0	0	N
			O03-03	10.25	275.13	4.41	229.32	0.00	0.00	5.84	45.81	-	4	2	1	Y
			O03-04	22.92	356.64	4.05	132.38	0.00	0.00	18.87	224.26	-	0	0	5	N
69742	Northern Training Area Infrastructure-Construct Tank Trails	Northern Ranges	O03-06R	26.38	823.89	13.69	468.29	0.00	0.00	12.69	355.60	-	0	0	0	N
			O03-06R	4.94	182.22	4.94	182.22	0.00	0.00	0.00	0.00	-	0	0	0	N

Table 3-5 (cont.). Direct project impacts for active red-cockaded woodpecker (RCW) clusters for Fiscal Year 2009 using the Standard for Managed Stability (SMS) (USFWS 2003a), **Alternative B** MCOE, Fort Benning, Georgia.

Project Number	Project Name	Location	Cluster Impacted	Total Acres of RCW Habitat Removed	Total BA of RCW Habitat Removed	SMS Foraging Habitat Removals						Habitat Removed Within the A20 Impact Area	Cavity Trees Taken by Project	Cavity Trees With Impacts Within 50 feet	Cavity Trees With Impacts Within 51 - 200 feet	Disturbance due to Noise, Pedestrian or Vehicular Traffic (Y/N)
						Suitable Habitat Removed		Potentially Suitable Habitat Removed		Future Potential Habitat Removed						
						Acres	BA	Acres	BA	Acres	BA					
69742	Support Staging Area	Northern Ranges	O03-06R	3.71	113.48	3.71	113.48	0.00	0.00	0.00	0.00	-	0	0	0	N
69743	Southern Training Area Infrastructure Urban Training Site	Southern Ranges	D16-02	0.24	4.92	0.00	0.00	0.00	0.00	0.24	4.92	-	0	0	0	N
			D17-01	6.74	161.17	2.63	103.46	0.00	0.00	4.11	57.71	-	0	0	0	N
69743	Southern Training Area Infrastructure - Maneuver Area	Southern Ranges	D05-02R	61.38	2,118.25	34.50	1,526.89	0.00	0.00	26.88	591.36	-	0	0	4	N
			D05-04R	127.55	4,527.36	102.40	4,223.05	0.00	0.00	25.15	304.31	-	0	0	0	N
			D06-01R	30.17	399.61	0.03	0.95	0.00	0.00	30.14	398.66	-	0	0	0	N
			D08-01R	83.72	2,618.92	46.40	1,924.82	0.00	0.00	37.32	694.10	-	0	0	0	N
			D10-01	8.59	29.05	0.00	0.00	0.00	0.00	8.59	29.05	-	0	0	0	N
			D11-01	78.96	1,795.76	46.34	1,728.40	0.00	0.00	32.62	67.36	-	0	0	0	N
			D11-02	125.66	4,032.61	82.13	3,041.24	0.00	0.00	43.53	991.37	-	7	-	-	-
			D12-01	6.74	210.13	3.44	133.46	0.00	0.00	3.30	76.67	-	0	1	2	Y
			D16-01	47.90	916.97	0.00	0.00	18.50	619.75	29.40	297.22	-	0	0	0	N
			D16-02	138.45	2,374.25	12.84	446.72	0.00	0.00	125.61	1,927.53	-	0	0	0	N
			D17-01	71.34	2,196.00	46.39	1,735.41	0.00	0.00	24.95	460.59	-	0	0	1	N
			D17-03	99.69	2,959.41	56.87	2,114.36	0.00	0.00	42.82	845.05	-	0	0	0	N
			D17-04R	79.71	2,347.45	35.73	1,306.25	0.00	0.00	43.98	1,041.20	-	0	1	3	Y
			E04-01	44.07	1,577.90	35.58	1,286.76	0.00	0.00	8.49	291.14	-	0	2	1	Y
			F02-01R	103.00	2,784.30	28.78	1,244.09	0.00	0.00	74.22	1,540.21	-	0	5	-	Y
			J06-03	21.68	786.58	17.78	671.53	0.00	0.00	3.90	115.05	-	0	0	0	N
			K21-02R	36.85	1,394.69	32.19	1,285.04	0.00	0.00	4.66	109.65	-	0	0	0	N
	K21-05R	59.24	2,375.07	59.21	2,374.50	0.00	0.00	0.03	0.57	-	0	0	0	N		
69743	Southern Training Area Infrastructure-Upgrade Paved Road and Tank Trails	Southern Ranges	D05-04R	9.59	385.48	8.36	372.56	0.00	0.00	1.23	12.92	-	0	0	0	N
			D06-01R	9.25	93.63	0.00	0.00	0.00	0.00	9.25	93.63	-	0	0	0	N
			D08-01R	2.22	52.73	0.00	0.00	0.00	0.00	2.22	52.73	-	0	0	0	N
			D10-01	9.30	132.04	2.50	87.75	0.00	0.00	6.80	44.29	-	0	0	2	N
			D11-01	5.53	152.47	3.52	122.63	0.00	0.00	2.01	29.84	-	0	0	0	N
			D11-02	13.79	429.55	6.78	254.82	0.00	0.00	7.01	174.73	-	0	0	0	N
			D12-01	20.19	602.11	10.43	478.49	0.00	0.00	9.76	123.62	-	0	1	2	Y
			D16-02	36.92	773.78	3.71	128.89	0.00	0.00	33.21	644.89	-	0	0	0	N
	D17-01	16.19	522.61	10.71	425.30	0.00	0.00	5.48	97.31	-	0	0	0	N		
	D17-03	15.02	409.51	5.43	207.02	0.00	0.00	9.59	202.49	-	0	0	0	N		
	D17-04R	17.97	557.94	7.50	311.61	0.00	0.00	10.47	246.33	-	0	0	2	N		

Table 3-5 (cont.). Direct project impacts for active red-cockaded woodpecker (RCW) clusters for Fiscal Year 2009 using the Standard for Managed Stability (SMS) (USFWS 2003a), **Alternative B** MCOE, Fort Benning, Georgia.

Project Number	Project Name	Location	Cluster Impacted	Total Acres of RCW Habitat Removed	Total BA of RCW Habitat Removed	SMS Foraging Habitat Removals						Habitat Removed Within the A20 Impact Area	Cavity Trees Taken by Project	Cavity Trees With Impacts Within 50 feet	Cavity Trees With Impacts Within 51 - 200 feet	Disturbance due to Noise, Pedestrian or Vehicular Traffic (Y/N)
						Suitable Habitat Removed		Potentially Suitable Habitat Removed		Future Potential Habitat Removed						
						Acres	BA	Acres	BA	Acres	BA					
69743	Southern Training Area Infrastructure-Upgrade Paved Road and Tank Trails	Southern Ranges	E04-01	15.73	725.67	13.69	666.96	0.00	0.00	2.04	58.71	-	2	2	3	Y
			F02-01R	15.78	460.56	6.19	266.17	0.00	0.00	9.59	194.39	-	0	0	0	N
			J06-03	12.43	441.25	9.03	340.95	0.00	0.00	3.40	100.30	-	0	0	0	N
72017	Vehicle Recovery Course	Harmony Church	R02-01R	21.21	774.94	18.50	619.00	2.08	145.60	0.63	10.34	-	0	0	0	N
<b>TOTAL:</b>				<b>2,741.07</b>	<b>80,250.50</b>	<b>1,212.80</b>	<b>47,579.24</b>	<b>196.32</b>	<b>8,459.31</b>	<b>1,331.95</b>	<b>24,211.95</b>	<b>12.70</b>	<b>40</b>	<b>29</b>	<b>63</b>	

"-" denotes no impact because RCW cavity trees were taken by project.

Table 3-6. Direct project impacts for active red-cockaded woodpecker (RCW) clusters for Fiscal Year 2010 using the Standard for Managed Stability (SMS) (USFWS 2003a), **Alternative B** MCOE, Fort Benning, Georgia.

Project Number	Project Name	Location	Cluster Impacted	Total Acres of RCW Habitat Removed	Total BA of RCW Habitat Removed	SMS Foraging Habitat Removals						Cavity Trees Taken by Project	Cavity Trees With Impacts Within 50 feet	Cavity Trees With Impacts Within 51 - 200 feet	Disturbance due to Noise, Pedestrian or Vehicular Traffic (Y/N)
						Suitable Habitat Removed		Potentially Suitable Habitat Removed		Future Potential Habitat Removed					
						Acres	BA	Acres	BA	Acres	BA				
65079	Automated Combat Pistol Qual Course (CPQC)	Southern Ranges	A20-06	0.94	25.23	0.00	0.00	0.00	0.00	0.94	25.23	0	0	0	N
	Beaten Area for Automated CPQC		A20-06	8.72	305.20	8.72	305.20	0.00	0.00	0.00	0.00	0	0	0	N
	Construction Limits for Automated CPQC		A20-06	12.22	392.56	4.59	187.77	0.00	0.00	7.63	204.79	0	0	0	N
	Access Road for Automated CPQC		A20-06	3.57	133.14	3.57	133.14	0.00	0.00	0.00	0.00	0	1	0	Y
65557	Repair Existing Trng Area Roads, Phase I	Installation - wide	A06-01	2.42	96.77	1.79	82.34	0.00	0.00	0.63	14.43	0	0	0	N
			A07-01	12.38	360.31	2.96	100.64	0.00	0.00	9.42	259.67	0	0	0	N
			A20-04	8.38	370.52	2.50	126.33	3.97	194.53	1.91	49.66	0	0	0	N
			A20-06	4.04	134.67	3.58	134.67	0.00	0.00	0.46	0.00	0	0	0	N
			BB03-01R	9.46	232.35	0.55	23.32	0.48	22.40	8.43	186.63	0	0	0	N
			BB04-01R	11.51	414.19	7.48	342.33	0.00	0.00	4.03	71.86	0	0	0	N
			BB05-01R	13.74	616.01	12.62	580.52	0.59	24.49	0.53	11.00	0	0	0	N
			C01-03	5.39	184.65	0.49	29.89	1.45	61.94	3.45	92.82	0	0	1	N
			C01-06	6.98	265.93	0.00	0.00	5.91	235.43	1.07	30.50	0	0	0	N
			D05-04	13.49	496.79	10.96	437.26	0.00	0.00	2.53	59.53	0	0	0	N
			E02-01	2.93	71.41	1.27	39.37	0.69	22.23	0.97	9.81	0	0	0	N
			F02-01R	10.90	369.57	6.89	298.12	0.00	0.00	4.01	71.45	0	0	0	N
			HCC-10R	1.59	55.29	1.47	52.23	0.00	0.00	0.12	3.06	0	0	0	N
			HCC-11R	14.09	370.62	0.93	36.74	0.00	0.00	13.16	333.88	0	0	1	N
			K13-06	5.28	22.40	0.00	0.00	0.63	22.40	4.65	0.00	0	0	0	N
			K21-05	9.57	396.03	9.57	396.03	0.00	0.00	0.00	0.00	0	0	0	N
			KPR-01	21.65	1,014.56	10.63	610.63	7.80	320.74	3.22	83.19	0	0	0	N
			L02-02R	13.97	354.61	0.51	22.78	1.00	30.00	12.46	301.83	0	0	0	N
			L03-01	13.40	365.66	2.64	84.52	2.02	75.75	8.74	205.39	0	0	1	N
			M01-01	3.79	127.25	1.69	75.84	0.00	0.00	2.10	51.41	0	0	0	N
M08-01	18.35	654.17	12.05	514.03	0.00	0.00	6.30	140.14	2	1	4	Y			
M08-02a	9.16	435.87	8.66	409.12	0.50	26.75	0.00	0.00	0	0	1	N			
M08-02b	14.92	549.03	9.36	413.14	0.00	0.00	5.56	135.89	1	2	1	Y			
M08-04R	8.87	191.91	2.63	89.06	0.00	0.00	6.24	102.85	0	0	0	N			
M08-05R	7.04	149.40	0.26	9.62	1.54	47.84	5.24	91.94	0	0	0	N			

Table 3-6 (cont.). Direct project impacts for active red-cockaded woodpecker (RCW) clusters for Fiscal Year 2010 using the Standard for Managed Stability (SMS) (USFWS 2003a), **Alternative B** MCOE, Fort Benning, Georgia.

Project Number	Project Name	Location	Cluster Impacted	Total Acres of RCW Habitat Removed	Total BA of RCW Habitat Removed	SMS Foraging Habitat Removals						Cavity Trees Taken by Project	Cavity Trees With Impacts Within 50 feet	Cavity Trees With Impacts Within 51 - 200 feet	Disturbance due to Noise, Pedestrian or Vehicular Traffic (Y/N)
						Suitable Habitat Removed		Potentially Suitable Habitat Removed		Future Potential Habitat Removed					
						Acres	BA	Acres	BA	Acres	BA				
65557	Repair Existing Trng Area Roads, Phase I	Installation - wide	N01-02	4.36	156.85	0.98	38.22	2.36	98.23	1.02	20.40	0	0	0	N
			O01-02	13.05	339.82	4.45	164.65	0.00	0.00	8.60	175.17	0	0	0	N
			O01-03	12.71	319.28	3.57	175.63	0.76	36.10	8.38	107.55	0	0	3	N
			O01-04R	11.98	378.36	0.34	34.00	5.53	212.99	6.11	131.37	0	0	0	N
			O02-01R	18.07	459.92	7.82	315.70	1.82	70.06	8.43	74.16	0	0	0	N
			O03-02	14.01	524.64	11.23	477.53	0.00	0.00	2.78	47.11	0	0	1	N
			O03-03	13.45	288.02	4.14	168.63	0.00	0.00	9.31	119.39	0	2	1	Y
			O03-04	4.78	105.20	1.21	44.17	0.00	0.00	3.57	61.03	0	0	0	N
			O03-05	25.70	756.92	12.74	494.48	4.93	194.74	8.03	67.70	5	3	2	Y
			O03-07	10.79	415.76	10.42	415.76	0.00	0.00	0.37	0.00	0	0	0	N
			O04-01	14.67	355.84	0.00	0.00	0.00	0.00	14.67	355.84	2	1	3	Y
			O04-03a	2.21	47.52	0.00	0.00	0.00	0.00	2.21	47.52	0	0	3	N
			O04-03b	11.52	327.24	4.37	205.39	0.00	0.00	7.15	121.85	3	2	0	Y
			O05-01	9.16	388.99	5.68	286.33	0.00	0.00	3.48	102.66	0	0	0	N
			O05-02	6.72	258.37	6.72	258.37	0.00	0.00	0.00	0.00	1	0	5	N
			O08-01	6.79	136.14	0.00	0.00	3.48	130.50	3.31	5.64	0	0	0	N
			O10-01	8.70	288.37	0.00	0.00	7.45	262.37	1.25	26.00	0	0	0	N
			O10-03	3.10	111.40	1.50	57.75	1.60	53.65	0.00	0.00	0	0	0	N
			O10-04	15.54	429.16	0.00	0.00	12.48	429.16	3.06	0.00	0	0	0	N
			O11-01	0.11	3.08	0.00	0.00	0.00	0.00	0.11	3.08	0	0	0	N
O13-01	8.44	154.10	1.53	58.91	0.28	9.39	6.63	85.80	1	1	4	Y			
O14-03R	4.08	161.93	3.20	144.70	0.00	0.00	0.88	17.23	0	0	0	N			
S03-01R	4.02	124.28	0.00	0.00	0.92	39.56	3.10	84.72	0	0	0	N			
68733	Auto Multipurpose Machine Gun Range (MPMG1)	Southern Ranges	A17-01	52.51	2,631.51	30.98	1,591.01	21.53	1,040.50	0.00	0.00	0	0	0	N
			A17-03	93.99	4,925.31	75.29	3,990.31	18.70	935.00	0.00	0.00	9	0	0	N
			A17-07	3.66	210.89	0.00	0.00	3.66	210.89	0.00	0.00	0	0	0	N
			A17-08	0.32	20.28	0.32	20.28	0.00	0.00	0.00	0.00	0	0	0	N
			A17-13	0.95	47.50	0.00	0.00	0.95	47.50	0.00	0.00	0	0	0	N
			A17-14a	38.93	2,206.06	30.47	1,701.71	8.46	504.35	0.00	0.00	5	0	0	N
A17-14b	9.50	536.75	0.00	0.00	0.00	0.00	9.50	536.75	2	-	-	-			

Table 3-6 (cont.). Direct project impacts for active red-cockaded woodpecker (RCW) clusters for Fiscal Year 2010 using the Standard for Managed Stability (SMS) (USFWS 2003a), **Alternative B** MCOE, Fort Benning, Georgia.

Project Number	Project Name	Location	Cluster Impacted	Total Acres of RCW Habitat Removed	Total BA of RCW Habitat Removed	SMS Foraging Habitat Removals						Cavity Trees Taken by Project	Cavity Trees With Impacts Within 50 feet	Cavity Trees With Impacts Within 51 - 200 feet	Disturbance due to Noise, Pedestrian or Vehicular Traffic (Y/N)
						Suitable Habitat Removed		Potentially Suitable Habitat Removed		Future Potential Habitat Removed					
						Acres	BA	Acres	BA	Acres	BA				
68733	Construction Limits for MPMG1	Southern Ranges	A17-13	98.65	5,082.86	75.18	3,909.36	23.47	1,173.50	0.00	0.00	0	0	0	N
N/A	Construction Limits for Multi-purpose Machine Gun Ranges (MPMG1 & MPMG2)	Southern Ranges	A17-01	61.92	3,202.87	51.44	2,733.79	10.48	469.08	0.00	0.00	0	0	0	N
			A17-03	13.19	686.56	11.72	613.06	1.47	73.50	0.00	0.00	1	0	0	N
			A17-04	70.89	3,845.51	59.77	3,292.20	11.12	553.31	0.00	0.00	0	0	2	N
			A17-05	93.33	4,131.98	81.36	3,572.30	10.38	550.14	1.59	9.54	0	0	0	N
			A17-06	74.70	3,307.26	74.56	3,303.62	0.00	0.00	0.14	3.64	0	0	0	N
			A17-07	72.01	3,319.85	58.03	2,611.35	13.98	708.50	0.00	0.00	0	0	0	N
			A17-08	15.38	779.43	11.61	758.14	0.00	0.00	3.77	21.29	0	0	0	N
			A17-14a	59.55	2,537.39	36.00	1,840.36	11.72	626.05	11.83	70.98	0	0	0	N
			A17-14b	47.50	2,629.00	0.00	0.00	0.00	0.00	47.50	2,629.00	0	0	0	N
N/A	Construction Buffer for MPMG1 & MPMG2		A14-03R	38.20	1,960.05	38.20	1,960.05	0.00	0.00	0.00	0.00	0	0	0	N
69150	Classrooms and Dual BN Dining Facilities	Sand Hill	SHC-02	0.60	17.85	0.00	0.00	0.45	14.19	0.15	3.66	0	0	0	N
70027	Classrooms with BN Dining Facilities	Sand Hill	SHC-02	1.09	28.34	0.00	0.00	0.00	0.00	1.09	28.34	0	0	0	N
<b>TOTAL:</b>				<b>1,339.58</b>	<b>57,794.54</b>	<b>843.20</b>	<b>40,772.40</b>	<b>204.56</b>	<b>9,527.76</b>	<b>291.82</b>	<b>7,494.38</b>	<b>32</b>	<b>13</b>	<b>33</b>	

"-" denotes no impact because RCW cavity trees were taken by project.

Table 3-7. Direct project impacts for active red-cockaded woodpecker (RCW) clusters for Fiscal Year 2011 using the Standard for Managed Stability (SMS) (USFWS 2003a), **Alternative B** MCOE, Fort Benning, Georgia.

Project Number	Project Name	Location	Cluster Impacted	Total Acres of RCW Habitat Removed	Total BA of RCW Habitat Removed	SMS Foraging Habitat Removals						Cavity Trees Taken by Project	Cavity Trees With Impacts Within 50 feet	Cavity Trees With Impacts Within 51 - 200 feet	Disturbance due to Noise, Pedestrian or Vehicular Traffic (Y/N)
						Suitable Habitat Removed		Potentially Suitable Habitat Removed		Future Potential Habitat Removed					
						Acres	BA	Acres	BA	Acres	BA				
64551	Beaten Area for Multi-purpose Training Range (MPTR)	Southern Ranges	K09-02R	2.51	41.37	0.77	23.10	0.00	0.00	1.74	18.27	0	0	0	N
			K12-01	45.82	1,962.37	45.82	1,962.37	0.00	0.00	0.00	0.00	6	0	1	N
			K13-02	77.31	2,916.70	58.38	2,426.42	0.00	0.00	18.93	490.28	0	0	1	N
			K13-04	93.77	2,340.61	37.00	1,207.66	24.90	1,132.95	31.87	0.00	9	-	-	-
			K13-05R	17.28	545.81	12.77	519.81	0.00	0.00	4.51	26.00	0	0	0	N
65033	Beaten Area for Fire and Movement Range (FM2)	Oscar Ranges	O07-01	2.79	79.52	0.00	0.00	0.00	0.00	2.79	79.52	0	0	0	N
65035	Beaten Area for Basic 10M-25M Firing Range (Z1)	Oscar Ranges	O05-03	1.18	48.97	1.18	48.97	0.00	0.00	0.00	0.00	0	0	0	N
65036	Beaten Area for Basic 10M-25M Firing Range (Z2)	Oscar Ranges	O05-02	10.04	291.19	4.92	185.51	0.48	16.68	4.64	89.00	0	0	0	N
			O05-03	4.44	54.96	0.00	0.00	0.16	5.56	4.28	49.40	0	0	0	N
65043	Beaten Area for Modified Record Fire Range (MRF1)	Oscar Ranges	O05-03	17.42	723.25	16.28	675.95	0.86	47.30	0.28	0.00	0	0	0	N
65049	Beaten Area for Modified Record Fire Range (MRF7)	Oscar Ranges	O05-02	10.12	401.43	0.00	0.00	4.69	162.93	5.43	238.50	0	0	0	N
			O05-03	15.50	538.88	0.00	0.00	8.46	334.62	7.04	204.26	0	0	0	N
65070	Multipurpose Machine Gun Range (MPMG2)	Southern Ranges	A17-01	3.54	220.21	3.54	220.21	0.00	0.00	0.00	0.00	0	0	0	N
			A17-02	44.86	1,412.21	21.35	1,271.91	0.00	0.00	23.51	140.30	0	0	0	N
			A17-03	1.09	56.67	1.09	56.67	0.00	0.00	0.00	0.00	0	0	0	N
			A17-06	18.21	874.85	18.21	874.85	0.00	0.00	0.00	0.00	4	0	0	N
			A17-08	114.87	6,426.31	99.91	6,341.50	0.00	0.00	14.96	84.81	4	0	0	N
			A17-11R	19.79	1,306.14	19.79	1,306.14	0.00	0.00	0.00	0.00	0	0	0	N
65070	Construction Limits for MPMG2	Southern Ranges	A17-13	5.18	269.36	5.18	269.36	0.00	0.00	0.00	0.00	9	0	0	-
			A17-02	70.22	2,083.33	37.06	1,815.94	0.00	0.00	33.16	267.39	0	0	0	N
			A17-11R	87.09	5,726.77	86.74	5,724.84	0.00	0.00	0.35	1.93	10	-	-	-
65070	Access Road for MPMG2	Southern Ranges	A17-12R	31.22	997.83	4.75	313.50	0.00	0.00	26.47	684.33	0	0	0	N
			A17-06	3.76	137.60	3.74	137.60	0.00	0.00	0.02	0.00	0	0	0	N
65383	Beaten Area for Stationary Tank Range (ST2)		K02-01	7.74	139.91	0.00	0.00	0.08	2.48	7.66	137.43	0	0	0	N
O09-02			1.35	25.65	0.00	0.00	0.00	0.00	1.35	25.65	0	0	0	N	
68733	Beaten Area for Multi-purpose Machine Gun Range (MPMG1)		A17-07	16.76	747.31	15.70	706.50	1.06	40.81	0.00	0.00	0	0	0	N
<b>TOTAL:</b>				<b>723.86</b>	<b>30,369.21</b>	<b>494.18</b>	<b>26,088.81</b>	<b>40.69</b>	<b>1,743.33</b>	<b>188.99</b>	<b>2,537.07</b>	<b>42</b>	<b>0</b>	<b>2</b>	

"-" denotes no impact because RCW cavity trees were taken by project.

Table 3-8. Direct project impacts for active red-cockaded woodpecker (RCW) clusters for Fiscal Year 2012 using the Standard for Managed Stability (SMS) (USFWS 2003a), **Alternative B** MCOE, Fort Benning, Georgia.

Project Number	Project Name	Location	Cluster Impacted	Total Acres of RCW Habitat Removed	Total BA of RCW Habitat Removed	SMS Foraging Habitat Removals						Cavity Trees Taken by Project	Cavity Trees With Impacts Within 50 feet	Cavity Trees With Impacts Within 51 - 200 feet	Disturbance due to Noise, Pedestrian or Vehicular Traffic (Y/N)
						Suitable Habitat Removed		Potentially Suitable Habitat Removed		Future Potential Habitat Removed					
						Acres	BA	Acres	BA	Acres	BA				
62953	Rail Loading Facility Expansion	Northern Ranges	T02-02R	7.61	376.70	0.00	0.00	7.61	376.70	0.00	0.00	0	0	0	N
65070	Beaten Area for Multipurpose Machine Gun Range (MPMG2)	Southern Ranges	A17-02	2.03	99.47	2.03	99.47	0.00	0.00	0.00	0.00	0	0	0	-
65246	Recreation Center, Harmony Church	Harmony Church	HCC-10R	1.12	33.60	0.00	0.00	1.12	33.60	0.00	0.00	0	0	0	N
	Recreation Centers, Sand Hill	Sand Hill	SHC-02	1.89	44.77	0.00	0.00	0.00	0.00	1.89	44.77	0	0	0	N
69745	Training Barracks Complex (GTA)	Sand Hill	SHC-02	0.07	2.21	0.00	0.00	0.07	2.21	0.00	0.00	0	0	0	N
<b>TOTAL:</b>				<b>12.72</b>	<b>556.75</b>	<b>2.03</b>	<b>99.47</b>	<b>8.80</b>	<b>412.51</b>	<b>1.89</b>	<b>44.77</b>	<b>0</b>	<b>0</b>	<b>0</b>	

"-" denotes no impact because RCW cavity trees were taken by project.

Table 3-9. Red-cockaded woodpecker cavity trees impacted within active clusters impacted by Fiscal Year 2009 - 2011 **Alternative B**, MCOE projects, Fort Benning, Georgia.

Fiscal Year	Project Number	Project Name	Ammunition	Cluster Number	Cavity Tree	Tree Taken? (Yes (Y)/ No (N))	Impact within 50 feet? (Y/N)	Impact within 51 - 200 feet? (Y/N)	Harassment	Activity Status	Stage	Cavity Condition	Nest tree History						
2009	64551	Multipurpose Training Range (MPTR)	25mm, 120mm, 7.62mm, 5.56mm & .50 Cal	K09-03R	4409A	N	N	N	N	INA	4	1	2008						
					4410A	N	N	N	N	INA	4	2							
					4411A	N	N	N	N	ACT	4	1							
					4412A	N	N	N	N	INA	4	2							
					5170	N	N	N	N	ACT	1	2							
					5730	N	N	N	N	ACT	1	1							
					5826A	N	N	N	N	INA	3	2							
					5900	Y	-	-	-										
					65383	Stationary Tank Range	120 mm & .50 Cal	K02-01 *	1617	Y	-	-		-	-	ACT	1	2	2008
									3900A	Y	-	-		-	-	ACT	4	1	
	3901A	Y	-	-					-	-	INA	4	2						
	4772A	Y	-	-					-	-	ACT	4	1						
	5720	Y	-	-					-	-	ACT	1	1						
	5871	Y	-	-					-	-	INA	1	1						
	O09-02	1614	N	N					N	N	INA	4	2						
		3095A	N	N					N	N	INA	4	2						
		3096A	N	N					N	N	INA	4	1						
		3098A	N	N					N	N	ACT	4	1						
		3099A	N	N					N	N	INA	4	2						
		3232	N	N					N	N	INA	2	2						
		3938	N	N					Y	N	INA	1	1						
		4836	N	N					Y	N	ACT	1	1						
		5627	N	N					Y	N	ACT	2	2						
		65554	Construct Training Area Roads Paved	J02-02R					2683A	Y	-	-	-	-	INA	5	2	2007 - 2008 2008	
	2685A								Y	-	-	-	-	ACT	4	1			
	2686A								N	Y	-	-	Y	ACT	4	1			
	2687A				Y	-	-	-	-	INA	4	1							
	2688A				N	Y	-	-	Y	ACT	4	1							
	5204				Y	-	-	-	-	ACT	2	2							
	5489				N	Y	-	-	Y	INA	1	1							
	5511				N	N	N	N	ACT	1	1								
	5691				Y	-	-	-	-	ACT	1	1							
	K08-03				4967A	N	N	N	N	INA	4	1							
					4968A	N	N	N	N	ACT	4	1							
					5407	N	N	N	N	INA	1	1							
		5439	N	N	N	N	ACT	1	1										
		5440	N	N	Y	N	ACT	2	2										
	K11-02 *	1064	N	N	Y	N	INA	1	1										
		2595A	N	N	N	N	ACT	4	1										
		2596A	N	N	N	N	INA	4	1										
		2620A	N	N	Y	N	ACT	4	1										
		2621A	N	N	Y	N	INA	4	1										
		2737A	N	N	Y	N	ACT	4	1										
		3656	N	N	Y	N	INA	1	2										
		3688	N	N	N	N	INA	2	2										
		3788A	N	N	N	N	ACT	4	1										
		4852	N	N	N	N	INA	2	2										
		5211	N	N	N	N	ACT	2	2										
		5284	N	N	N	N	ACT	2	2										
		5434	N	N	N	N	ACT	1	1										
O08-02	3445A	N	N	N	N	INA	4	1											
	3789	N	N	Y	N	INA	2	2											
	4768A	N	N	N	N	ACT	4	1											
	4769A	N	N	Y	N	ACT	4	1											
	5046	N	N	N	N	INA	2	2											
	5518	N	N	N	N	ACT	1	1											
	5750	N	N	N	N	ACT	2	2											
	5810	N	N	Y	N	ACT	1	1											

<b>Activity Status</b>		<b>Stage</b>				<b>Cavity Condition</b>	
ACT	Active	1	Natural RCW cavity	4	Insert cavity	1	Suitable
INA	Inactive	2	Natural start	5	Drilled start	2	Unsuitable
		3	Drilled cavity				

\* These clusters were analyzed and "taken" by Transformation projects, but project impacts within this partition are currently being re-analyzed by MCOE projects.

Table 3-9 (cont.). Red-cockaded woodpecker cavity trees impacted within active clusters impacted by Fiscal Year 2009 - 2011 **Alternative B**, MCOE projects, Fort Benning, Georgia.

Fiscal Year	Project Number	Project Name	Ammunition	Cluster Number	Cavity Tree	Tree Taken? (Yes (Y)/ No (N))	Impact within 50 feet? (Y/N)	Impact within 51 - 200 feet? (Y/N)	Harassment	Activity Status	Stage	Cavity Condition	Nest tree History													
2009	65554	Construct Training Area Roads Paved		O09-03R	3768A	N	N	Y	-	ACT	4	1														
					3769A	N	N	Y	-	ACT	4	1														
					3770A	N	N	Y	-	INA	4	1														
					3771A	N	N	Y	-	INA	4	1														
				O13-06R	1987	N	Y	-	N	INA	1	2														
					2314	N	N	N	N	ACT	2	2														
					3205A	N	N	N	N	INA	4	1														
					3206A	N	N	N	N	ACT	4	1														
					3207A	N	N	Y	N	ACT	4	1														
					3208A	N	N	N	N	ACT	4	1														
					3209A	N	N	N	N	INA	5	2														
					5002A	N	N	N	N	ACT	4	1														
				A09-03R	5250	N	N	N	N	INA	1	2														
					5684	N	N	N	N	INA	2	2														
					1541	N	N	N	N	INA	1	2														
					2554A	N	N	N	N	ACT	4	1														
	2563A	N	N		N	N	ACT	4	1																	
	2564A	N	N		N	N	ACT	4	1																	
	4197	N	N		N	N	INA	1	2																	
	4456	N	N		Y	N	INA	2	2																	
	HCC-10R	4821	N	N	Y	N	INA	2	2																	
		4854	N	N	N	N	ACT	1	1																	
		4858	N	N	N	N	INA	2	2																	
		4859	N	N	N	N	INA	2	2																	
		4429A	N	N	Y	N	ACT	4	1																	
		4430A	N	N	Y	N	INA	4	1																	
		4431A	N	Y	-	Y	ACT	4	1																	
		4432A	N	N	Y	N	ACT	4	1																	
	Q02-02	5688	Y	-	-	-	ACT	1	1																	
		5689	N	N	Y	N	ACT	2	2																	
		5743	N	N	N	N	INA	1	2																	
		5803A	N	Y	-	N	ACT	4	1																	
		5804A	N	N	Y	N	INA	4	1																	
		5805	Y	-	-	-	ACT	2	2																	
		0378	N	N	Y	N	INA	1	2																	
		0379	N	N	Y	N	ACT	1	1																	
	Q02-03	2515	N	N	N	N	INA	1	1																	
		2885	N	N	N	N	INA	1	2																	
		4222	N	N	N	N	ACT	1	1																	
		4224	N	N	N	N	INA	1	2																	
		4257	N	N	N	N	INA	2	2																	
		4843	N	N	N	N	INA	2	2																	
		5244	N	N	N	N	ACT	1	1																	
		5670	N	N	Y	N	ACT	1	1																	
		5766	N	N	N	N	ACT	2	2																	
		2790A	Y	-	-	-	ACT	4	1																	
		2792A	N	N	Y	N	ACT	4	1																	
		2884	N	Y	-	Y	ACT	1	1																	
		3175A	N	N	Y	N	ACT	4	1																	
		3178A	Y	-	-	-	INA	5	2																	
		3346	N	N	Y	N	ACT	1	1																	
		3347	Y	-	-	-	INA	1	1																	
Q02-04R	3888	N	N	N	N	INA	2	2																		
	5057	N	Y	-	N	INA	1	2																		
	5575	N	N	Y	N	INA	2	2																		
	4050A	N	N	N	N	ACT	4	1																		
	4051A	N	N	Y	N	ACT	4	1																		
	4052A	N	Y	-	Y	ACT	4	1																		
	5052	N	N	Y	N	ACT	1	1																		
	5450	N	N	Y	N	ACT	1	1																		
5622	Y	-	-	-	INA	2	2																			
69358	Range Access Road																									
														69741	Alternate 19D/K OSUT Training Area											

<b>Activity Status</b>		<b>Stage</b>				<b>Cavity Condition</b>	
ACT	Active	1	Natural RCW cavity	4	Insert cavity	1	Suitable
INA	Inactive	2	Natural start	5	Drilled start	2	Unsuitable
		3	Drilled cavity				

\* These clusters were analyzed and "taken" by Transformation projects, but project impacts within this partition are currently being re-analyzed by MCOE projects.

Table 3-9 (cont.). Red-cockaded woodpecker cavity trees impacted within active clusters impacted by Fiscal Year 2009 - 2011 **Alternative B**, MCOE projects, Fort Benning, Georgia.

Fiscal Year	Project Number	Project Name	Ammunition	Cluster Number	Cavity Tree	Tree Taken? (Yes (Y)/ No (N))	Impact within 50 feet? (Y/N)	Impact within 51 - 200 feet? (Y/N)	Harassment	Activity Status	Stage	Cavity Condition	Nest tree History
2009	69742	Northern Training Area Infrastructure		OO1-01	2000	N	N	N	N	INA	1	1	2006 - 2008
					2310	N	N	N	N	ACT	1	1	
					2810	N	N	N	N	INA	1	1	
					2811	N	N	N	N	ACT	1	1	
					3240	N	N	N	N	INA	1	2	
					3262	N	N	N	N	INA	1	1	
					3642	N	N	Y	N	INA	4	2	
					3801A	N	N	N	N	INA	4	1	
					3802A	N	N	N	N	INA	1	1	
					3928	N	N	Y	N	ACT	1	1	
					4842	N	N	N	N	INA	1	1	
					5448	N	N	Y	N	ACT	1	1	
					5449	N	N	N	N	INA	1	1	
					5527	N	N	N	N	INA	2	1	
					O01-03	0105	N	N	N	INA	1	1	
						3456A	N	N	N	INA	4	2	
				4966A		N	N	N	INA	4	1		
				4993		N	N	Y	INA	1	1		
				5028		N	N	N	INA	1	2		
				5098		N	N	Y	ACT	1	2		
				5381		N	N	Y	INA	1	1		
				5649		N	N	Y	ACT	1	1		
				O03-01	0802	Y	-	-	INA	1	2		
					1741	N	N	Y	ACT	2	2		
					3716	Y	-	-	INA	1	2		
					4030	N	N	Y	INA	1	1		
					4997	Y	-	-	INA	2	2		
					5106A	Y	-	-	ACT	3	1		
					5107A	Y	-	-	ACT	3	1		
					5520	Y	-	-	ACT	3	1		
				5790	N	Y	-	ACT	1	1			
				O03-03	0115	Y	-	-	ACT	1	1		
					0116	N	Y	-	INA	1	2		
					2337	N	N	N	ACT	1	2		
					2903	Y	-	-	INA	2	2		
					3488	N	Y	-	ACT	1	1		
					3943	N	N	Y	INA	1	1		
					4172	Y	-	-	ACT	1	1		
					4570	Y	-	-	ACT	1	1		
				5078	N	N	N	INA	2	2			
				O03-04	0768	N	N	N	INA	1	1		
					1193	N	N	Y	INA	1	1		
					2338	N	N	N	INA	2	2		
					2793A	N	N	N	INA	4	1		
					2794A	N	N	N	ACT	4	1		
					2797A	N	N	Y	ACT	3	1		
					2798A	N	N	Y	INA	5	2		
					2799A	N	N	Y	INA	5	2		
					2800A	N	N	Y	ACT	5	2		
					3644	N	N	N	INA	2	2		

<b>Activity Status</b>		<b>Stage</b>			<b>Cavity Condition</b>		
ACT	Active	1	Natural RCW cavity	4	Insert cavity	1	Suitable
INA	Inactive	2	Natural start	5	Drilled start	2	Unsuitable
		3	Drilled cavity				

\* These clusters were analyzed and "taken" by Transformation projects, but project impacts within this partition are currently being re-analyzed by MCOE projects.

Table 3-9 (cont.). Red-cockaded woodpecker cavity trees impacted within active clusters impacted by Fiscal Year 2009 - 2011 **Alternative B**, MCOE projects, Fort Benning, Georgia.

Fiscal Year	Project Number	Project Name	Ammunition	Cluster Number	Cavity Tree	Tree Taken? (Yes (Y)/ No (N))	Impact within 50 feet? (Y/N)	Impact within 51 - 200 feet? (Y/N)	Harassment	Activity Status	Stage	Cavity Condition	Nest tree History						
2009	69742	Northern Training Area Infrastructure		O15-01	1996	N	N	Y	N	INA	2	2	2007 - 2008						
					3615A	N	N	N	N	INA	4	1							
					3616A	N	N	N	N	INA	4	2							
					4026	N	N	N	N	INA	2	2							
					4372A	N	N	N	N	INA	4	1							
					4373A	N	N	N	N	INA	4	1							
					5554	N	N	N	N	ACT	1	1							
					5555	N	N	N	N	ACT	1	1							
					5637	N	N	N	N	INA	2	2							
					5638	N	N	N	N	ACT	2	2							
					5639	N	N	N	N	ACT	2	2							
					69743	Southern Training Area Infrastructure			D05-02R	4645A	N	N		Y	N	INA	4	1	2008
										4646A	N	N		Y	N	INA	4	1	
										4648A	N	N		N	N	ACT	4	1	
	5270A	N	N	Y						N	INA	4	1						
	5657	N	N	Y						N	ACT	1	1						
	D11-02 *	3852A	Y	-					-	-	ACT	4	1						
		3853A	Y	-					-	-	ACT	4	1						
		4240A	Y	-					-	-	INA	4	2						
		4517	Y	-					-	-	INA	1	1						
		5476	Y	-					-	-	INA	1	1						
		5655	Y	-					-	-	INA	1	1						
		5697	Y	-					-	-	ACT	1	1						
	D12-01	2305	N	N					N	N	INA	1	1	2007 - 2008					
		2325	N	N					N	N	INA	1	1						
		2926	N	N					N	N	INA	1	2						
		3655	N	Y					-	Y	INA	1	1						
		4863	N	N					Y	N	INA	1	1						
		5068	N	N					N	N	INA	2	2						
		5763A	N	N					Y	N	INA	4	1						
		5764A	N	N					N	N	INA	4	1						
		5595	N	N					N	N	ACT	1	1						
		5763A	N	N					Y	N	ACT	4	1						
		5764A	N	N					N	N	INA	4	1						
	D17-04R	2637A	N	N					N	N	INA	4	1	2008					
		2638A	N	N					N	N	INA	4	1						
		2639A	N	N					N	N	INA	5	2						
		2673A	N	N					N	N	ACT	1	1						
		2676A	N	N					Y	N	INA	4	1						
		4523	N	N					Y	N	INA	1	2						
		4942A	N	N					N	N	ACT	4	1						
		5012	N	N					Y	N	INA	1	1						
		5273	N	N					N	N	INA	1	2						
		5605	N	Y					-	Y	ACT	1	1						
		5865	N	N					N	N	ACT	1	1						
		E04-01	0180	N					N	N	N	INA	1		1	2008			
			2804	N					N	N	N	INA	1		1				
	3957		N	N					Y	N	INA	1	1						
	3958		N	Y					-	N	INA	2	2						
	4459		N	N					N	N	INA	1	1						
5108	N		N	N					N	ACT	1	1							
5109	N		N	N					N	INA	1	2							
F02-01R *	5185	N	Y	-					Y	ACT	1	2							
	3465A	N	Y	-					Y	ACT	4	1							
	3466A	N	Y	-					Y	ACT	4	1							
	3467A	N	Y	-					Y	ACT	4	1							
	4083A	N	Y	-					Y	ACT	4	1							
5681	N	Y	-	N	ACT	2	2												

<b>Activity Status</b>		<b>Stage</b>				<b>Cavity Condition</b>	
ACT	Active	1	Natural RCW cavity	4	Insert cavity	1	Suitable
INA	Inactive	2	Natural start	5	Drilled start	2	Unsuitable
		3	Drilled cavity				

\* These clusters were analyzed and "taken" by Transformation projects, but project impacts within this partition are currently being re-analyzed by MCOE projects.

Table 3-9 (cont.). Red-cockaded woodpecker cavity trees impacted within active clusters impacted by Fiscal Year 2009 - 2011 **Alternative B**, MCOE projects, Fort Benning, Georgia.

Fiscal Year	Project Number	Project Name	Ammunition	Cluster Number	Cavity Tree	Tree Taken? (Yes (Y)/ No (N))	Impact within 50 feet? (Y/N)	Impact within 51 - 200 feet? (Y/N)	Harassment	Activity Status	Stage	Cavity Condition	Nest tree History						
2009	69743	Southern Training Area Infrastructure - Road		D10-01 *	2327	N	N	N	N	INA	1	2							
					2823	N	N	Y	N	INA	1	1							
					2868	N	N	N	N	INA	1	1							
					4004	N	N	N	N	INA	1	1							
					4826	N	N	N	N	INA	1	2							
					5163	N	N	N	N	INA	1	1							
					5224	N	N	N	N	INA	2	2							
					5441	N	N	N	N	ACT	1	1							
					5461A	N	N	N	N	ACT	4	1		2006-2008					
					5761A	N	N	N	N	ACT	4	1							
					5762A	N	N	Y	N	ACT	4	1							
									D12-01	2305	N	N		N	N	INA	1	1	
										2325	N	N		N	N	INA	1	1	
								2926		N	N	N	N	INA	1	2			
								3655		N	Y	-	Y	INA	1	1			
								4863		N	N	Y	N	INA	1	1			
								5068		N	N	N	N	INA	2	2			
								5763A		N	N	Y	N	INA	4	1			
								5764A		N	N	N	N	INA	4	1			
								5595		N	N	N	N	ACT	1	1			
								5763A		N	N	Y	N	ACT	4	1	2008		
								5764A	N	N	N	N	INA	4	1				
								D17-04R	2637A	N	N	Y	N	INA	4	1			
									2638A	N	N	N	N	INA	4	1			
									2639A	N	N	N	N	INA	5	2			
									2673A	N	N	N	N	ACT	1	1			
									2676A	N	N	N	N	INA	4	1			
									4523	N	N	N	N	INA	1	2			
									4942A	N	N	Y	N	ACT	4	1			
									5012	N	N	N	N	INA	1	1			
									5273	N	N	N	N	INA	1	2			
									5605	N	N	N	N	ACT	1	1			
								5865	N	N	N	N	ACT	1	1				
								E04-01	0180	N	N	Y	N	INA	1	1			
									2804	N	Y	-	N	INA	1	1			
									3957	N	Y	-	N	INA	1	1			
									3958	Y	-	-	-	INA	2	2			
									4459	N	N	Y	N	INA	1	1			
									5108	N	N	Y	N	ACT	1	1			
									5109	Y	-	-	-	INA	1	2			
									5185	Y	-	-	-	ACT	1	2			
					72017	Vehicle Recovery Course		R01-01	2135	Y	-	-	-	INA	1	2	2006 - 2008		
									3227	Y	-	-	-	INA	1	2			
									3360	Y	-	-	-	INA	2	2			
									4103	Y	-	-	-	INA	2	2			
									4661A	Y	-	-	-	INA	4	1			
									4662A	Y	-	-	-	INA	4	1			
									4681	Y	-	-	-	ACT	1	1			
									4682	Y	-	-	-	INA	2	2			
	4975A	Y	-	-					-	ACT	4	1							
	4976A	Y	-	-					-	ACT	4	1							
	5491	Y	-	-					-	ACT	2	2							
	5740	Y	-	-					-	ACT	1	1							

**Activity Status**  
 ACT Active  
 INA Inactive

**Stage**  
 1 Natural RCW cavity  
 2 Natural start  
 3 Drilled cavity  
 4 Insert cavity  
 5 Drilled start

**Cavity Condition**  
 1 Suitable  
 2 Unsuitable

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Table 3-9 (cont.). Red-cockaded woodpecker cavity trees impacted within active clusters impacted by Fiscal Year 2009 - 2011 **Alternative B**, MCOE projects, Fort Benning, Georgia.

Fiscal Year	Project Number	Project Name	Ammunition	Cluster Number	Cavity Tree	Tree Taken? (Yes (Y)/ No (N))	Impact within 50 feet? (Y/N)	Impact within 51 - 200 feet? (Y/N)	Harassment	Activity Status	Stage	Cavity Condition	Nest tree History					
2009	72017	Vehicle Recovery Course		RO1-03R*	2650A	Y	-	-	-	INA	4	2	2008					
					2652A	Y	-	-	-	INA	5	2						
					2654A	Y	-	-	-	ACT	4	1						
					2655A	Y	-	-	-	INA	5	2						
					2657A	Y	-	-	-	ACT	4	1						
					3902A	Y	-	-	-	ACT	4	1						
					4027	Y	-	-	-	INA	1	2						
					4691	Y	-	-	-	INA	1	2						
					4711	Y	-	-	-	INA	1	2						
					4833	Y	-	-	-	INA	1	2						
					4912	Y	-	-	-	INA	1	2						
					5054	Y	-	-	-	ACT	1	1						
					5867	Y	-	-	-	ACT	1	1						
					<b>Total number of trees impacted in 2009</b>						<b>63</b>	<b>24</b>		<b>71</b>				
					2010	65079	Automated Combat Pistol Qual Course		A20-06	3734	N	N		N	N	INA	2	2
3735	N	N	N	N						INA	1	1						
4217	N	N	N	N						INA	2	2						
4453A	N	N	N	N						ACT	4	1						
4454A	N	N	N	N						ACT	4	1						
4455A	N	N	N	N						INA	4	2						
5394	N	Y	-	Y						ACT	1	1						
5878	N	N	N	N						ACT	1	1						
65557	Repair Existing Training Area Roads, Phase 1		C01-03	0124						N	N	N	N	INA	1	2	2008	
				0587						N	N	N	N	ACT	1	1		
				0588		N	N	N	N	INA	1	2						
				1975		N	N	N	N	ACT	1	1						
				2151		N	N	N	N	INA	2	2						
				2856		N	N	N	N	INA	2	2						
				4764A		N	N	N	N	ACT	4	1						
				4765A		N	N	N	N	ACT	4	1						
				5382		N	N	N	N	ACT	1	1						
				5685		N	N	Y	N	ACT	2	2						
				5686		N	N	N	N	ACT	2	2						
				5744		N	N	N	N	ACT	2	2						
				HCC-11R *		4058A	N	N	N	N	INA	4	1	2005 - 2008				
						4059A	N	N	N	N	INA	4	1					
						4060A	N	N	N	N	ACT	4	1					
						4061A	N	N	N	N	ACT	4	1					
						5384	N	N	Y	N	ACT	1	1					
						5385	N	N	N	N	ACT	1	1					
						5538	N	N	N	N	INA	1	1					
						5672	N	N	N	N	ACT	2	2					
M08-01	1039	Y	-	-		-	INA	1	2	2008								
	1040	N	N	Y		N	INA	1	2									
	1884	N	N	N	N	INA	2	2										
	3349	N	N	Y	N	INA	1	1										
	4895	Y	-	-	-	INA	2	1										
	5003A	N	N	Y	N	ACT	4	1										
	5004A	N	N	N	N	INA	4	1										
	5533	N	N	Y	N	INA	1	1										
	5722	N	Y	-	Y	ACT	1	1										

**Activity Status**  
 ACT Active  
 INA Inactive

Stage	
1	Natural RCW cavity
2	Natural start
3	Drilled cavity
4	Insert cavity
5	Drilled start

Cavity Condition	
1	Suitable
2	Unsuitable

\* These clusters were analyzed and "taken" by Transformation projects, but project impacts within this partition are currently being re-analyzed by MCOE projects.

Table 3-9 (cont.). Red-cockaded woodpecker cavity trees impacted within active clusters impacted by Fiscal Year 2009 - 2011 **Alternative B**, MCOE projects, Fort Benning, Georgia.

Fiscal Year	Project Number	Project Name	Ammunition	Cluster Number	Cavity Tree	Tree Taken? (Yes (Y)/ No (N))	Impact within 50 feet? (Y/N)	Impact within 51 - 200 feet? (Y/N)	Harassment	Activity Status	Stage	Cavity Condition	Nest tree History	
2010	65557	Repair Existing Training Area Roads, Phase 1		M08-02a	1272	N	N	N	N	ACT	2	2	2008	
					2121	N	N	N	N	ACT	2	2		
					2123	N	N	N	N	ACT	1	1		
					2124	N	N	N	N	ACT	1	1		
					2270	N	N	Y	N	INA	2	2		
					3540	N	N	N	N	ACT	1	2		
					4371A	N	N	N	N	ACT	1	1		
					4374A	N	N	N	N	ACT	4	1		
					4375A	N	N	N	N	INA	4	1		
					4816	N	N	N	N	ACT	2	2		
					5635	N	N	N	N	INA	2	2		
					M08-02b	3997	N	N	Y	N	INA	1		2
						5395	N	Y	-	Y	ACT	1		1
						5469	Y	-	-	-	ACT	1		1
				5478		N	N	N	N	ACT	2	2		
				5634		N	Y	-	N	INA	2	2		
				O01-03	0105	N	N	Y	N	INA	1	1		
					3456A	N	N	Y	N	INA	4	2		
					4966A	N	N	Y	N	INA	4	1		
					4993	N	N	N	N	INA	1	1		
					5028	N	N	N	N	INA	1	2		
					5098	N	N	N	N	ACT	1	2		
					5381	N	N	N	N	INA	1	1		
					5649	N	N	N	N	ACT	1	1		
				O03-02	1592	N	N	N	N	INA	1	2		
					1744	N	N	N	N	INA	2	1		
					2249	N	N	Y	N	INA	1	1		
					3436A	N	N	N	N	INA	4	1		
					3437A	N	N	N	N	INA	4	1		
					5005A	N	N	N	N	ACT	3	1		
					5420A	N	N	N	N	ACT	3	1		
					O03-03	0115	N	Y	-	N	ACT	1	1	
				0116		N	Y	-	N	INA	1	2		
				2337		N	N	N	N	ACT	1	2		
				2903		N	N	Y	N	INA	2	2		
				3488		N	N	N	N	ACT	1	1		
				3943		N	N	N	N	INA	1	1		
				4172		N	N	N	N	ACT	1	1		
				4570		N	N	N	N	ACT	1	1		
				5078	N	N	N	N	INA	2	2			
				O03-05	2242	N	N	Y	N	ACT	1	1		
					2243	N	N	Y	N	INA	1	1		
					2244	N	N	N	N	ACT	1	2		
					2508	N	Y	-	Y	ACT	1	2		
					2590A	N	N	Y	N	INA	4	1		
					2591A	N	N	Y	N	INA	4	1		
					2608A	N	Y	-	Y	ACT	4	1		
					2720A	N	N	Y	N	INA	5	2		
					2723A	N	N	Y	N	ACT	4	1		
					4573	N	N	Y	N	INA	2	2		
				O04-01	1289	N	N	Y	N	INA	1	2		
					2003	Y	-	-	-	ACT	1	1		
					2974	N	N	N	N	ACT	1	1		
					3645	N	N	Y	N	INA	1	2		
					4595	N	Y	-	Y	ACT	1	1		
					4717A	Y	-	-	-	INA	4	1		
5632	N	N	Y		N	ACT	1	1						

<b>Activity Status</b>		<b>Stage</b>			<b>Cavity Condition</b>		
ACT	Active	1	Natural RCW cavity	4	Insert cavity	1	Suitable
INA	Inactive	2	Natural start	5	Drilled start	2	Unsuitable
		3	Drilled cavity				

\* These clusters were analyzed and "taken" by Transformation projects, but project impacts within this partition are currently being re-analyzed by MCOE projects.

Table 3-9 (cont.). Red-cockaded woodpecker cavity trees impacted within active clusters impacted by Fiscal Year 2009 - 2011 **Alternative B**, MCOE projects, Fort Benning, Georgia.

Fiscal Year	Project Number	Project Name	Ammunition	Cluster Number	Cavity Tree	Tree Taken? (Yes (Y)/ No (N))	Impact within 50 feet? (Y/N)	Impact within 51 - 200 feet? (Y/N)	Harassment	Activity Status	Stage	Cavity Condition	Nest tree History					
2010	65557	Repair Existing Training Area Roads, Phase 1		O04-03a	2111	N	N	N	N	ACT	1	2	2008					
					2558A	N	N	N	N	INA	4	1						
					2559A	N	N	N	N	ACT	4	1						
					2560A	N	N	N	N	INA	4	1						
					3315A	N	N	N	N	INA	5	2						
					3316A	N	N	N	N	ACT	2	2						
					4032	N	N	Y	N	ACT	1	2						
					4596	N	N	Y	N	INA	1	2						
					4702	N	N	N	N	ACT	1	1						
					5633	N	N	Y	N	ACT	2	2						
					O04-03b	4927	N	Y	-	Y	ACT	1		1	2008			
						4957	Y	-	-	-	INA	2		2				
						5061	Y	-	-	-	ACT	1		1				
				5501		N	Y	-	Y	ACT	1	1						
				5760		Y	-	-	-	ACT	2	2						
				O05-02	0770	N	N	Y	N	ACT	1	1	2006 - 2008					
					1726	Y	-	-	-	INA	1	2						
					2250	N	N	Y	N	ACT	1	1						
					2262	N	N	Y	N	ACT	1	1						
					2263	N	N	Y	N	INA	1	1						
					4395A	N	N	Y	N	INA	4	1						
					4913	N	N	N	N	INA	2	2						
				O13-01	2145	N	N	N	N	INA	2	2	2007 - 2008					
					3120A	N	N	N	N	INA	4	1						
					3121A	N	N	N	N	INA	4	1						
					3122A	N	N	Y	N	ACT	4	1						
					3123A	N	Y	-	N	INA	4	1						
					5026	N	N	Y	N	ACT	2	1						
					5027	N	N	N	N	INA	1	2						
					5176	Y	-	-	-	INA	2	2						
					5177	N	N	N	N	INA	1	2						
					5198	N	N	N	N	ACT	1	1						
					5530	N	N	Y	N	INA	1	1						
					5683	N	N	Y	N	ACT	1	2						
					O14-03R	4116A	N	N	N	N	ACT	4		1	2007 - 2008			
				4117A		N	N	N	N	INA	4	1						
				4118A		N	N	N	N	ACT	4	1						
				4119A		N	N	N	N	ACT	4	1						
				4274A		N	N	N	N	ACT	4	1						
				4275A		N	N	N	N	INA	5	2						
				4759A		N	N	N	N	INA	4	1						
				4827		N	N	Y	N	INA	1	1						
				4862		N	N	N	N	INA	2	2						
				5234		N	N	N	N	ACT	2	2						
				5237		N	N	N	N	INA	2	2						
				68733		Auto Multipurpose Machine Gun Range (MPMG1)	7.62mm & .50 Cal	A17-01 *	5616A	Y	-	-	-	ACT		4	1	2008
									5617A	Y	-	-	-	ACT		4	1	
					5618				Y	-	-	-	ACT	1	1			
					5619				Y	-	-	-	INA	1	1			
					5787				Y	-	-	-	ACT	1	1			

<b>Activity Status</b>		<b>Stage</b>			<b>Cavity Condition</b>		
ACT	Active	1	Natural RCW cavity	4	Insert cavity	1	Suitable
INA	Inactive	2	Natural start	5	Drilled start	2	Unsuitable
		3	Drilled cavity				

\* These clusters were analyzed and "taken" by Transformation projects, but project impacts within this partition are currently being re-analyzed by MCOE projects.

Table 3-9 (cont.). Red-cockaded woodpecker cavity trees impacted within active clusters impacted by Fiscal Year 2009 - 2011 **Alternative B**, MCOE projects, Fort Benning, Georgia.

Fiscal Year	Project Number	Project Name	Ammunition	Cluster Number	Cavity Tree	Tree Taken? (Yes (Y)/ No (N))	Impact within 50 feet? (Y/N)	Impact within 51 - 200 feet? (Y/N)	Harassment	Activity Status	Stage	Cavity Condition	Nest tree History			
2010	68733	Auto Multipurpose Machine Gun Range (MPMG1)	7.62mm & .50 Cal	A17-03 *	1694	Y	-	-	-	INA	1	1	2008			
					2192	Y	-	-	-	INA	1	1				
					4243	Y	-	-	-	ACT	1	1				
					4511	Y	-	-	-	ACT	1	1				
					4716	Y	-	-	-	INA	1	1				
					4853	Y	-	-	-	ACT	1	1				
					5071	Y	-	-	-	INA	2	2				
					5072	Y	-	-	-	INA	2	2				
					5389	Y	-	-	-	ACT	1	1				
					5390	Y	-	-	-	INA	2	2				
					A17-04	2468	N	N	N	-	ACT	1		1		
						2801	N	N	N	-	INA	1		1		
						4134	N	N	Y	-	INA	1		2		
				4196		N	N	N	-	ACT	1	1				
				4310		N	N	N	-	ACT	1	1				
				4311		N	N	N	-	INA	2	2				
				4327		N	N	N	-	INA	2	2				
				4328		N	N	N	-	ACT	2	2				
				5599		N	N	Y	-	ACT	1	1				
				A17-05		0921	Y	-	-	-	INA	1	2			
					0922	Y	-	-	-	ACT	1	1				
					2768	Y	-	-	-	INA	1	2				
					2948	Y	-	-	-	ACT	1	1				
					2963	Y	-	-	-	INA	1	1				
					2964	Y	-	-	-	INA	1	2				
					3709	Y	-	-	-	ACT	1	1				
					4365	Y	-	-	-	ACT	1	1				
					5620	Y	-	-	-	INA	2	2				
					A17-07	4330	Y	-	-	-	INA	1	2			
				4364		Y	-	-	-	ACT	1	2				
				4727		Y	-	-	-	ACT	1	1				
				4728		Y	-	-	-	ACT	1	1				
				4729		Y	-	-	-	ACT	1	2				
				5169		Y	-	-	-	INA	1	2				
				5560		Y	-	-	-	ACT	1	1				
				5786		Y	-	-	-	ACT	1	1				
				A17-14a *	4246	Y	-	-	-	INA	1	2				
					4251A	Y	-	-	-	ACT	4	1				
					4252A	Y	-	-	-	ACT	4	1				
					4253A	Y	-	-	-	INA	4	1				
					5721	Y	-	-	-	ACT	1	1				
					5854	Y	-	-	-	ACT	1	1				
					5855	Y	-	-	-	ACT	2	2				
				5856	Y	-	-	-	ACT	2	2					
				A17-14b	4247	Y	-	-	-	ACT	1	1				
					4248	Y	-	-	-	ACT	1	1				
				<b>Total number of trees impacted in 2010</b>						<b>51</b>	<b>12</b>	<b>38</b>				

2011	64551	Multipurpose Training Range Beaten Path	25mm, 120mm, 7.62mm, 5.56mm & .50 Cal	K12-01 *	2462	N	N	Y	N	INA	2	2	2008
					4690	Y	-	-	-	INA	1	2	
					4909A	Y	-	-	-	ACT	4	1	
					4910A	Y	-	-	-	ACT	4	1	
					4985A	Y	-	-	-	INA	3	1	
					4986A	Y	-	-	-	ACT	3	1	
					5675	Y	-	-	-	INA	1	1	

Activity Status		Stage			Cavity Condition		
ACT	Active	1	Natural RCW cavity	4	Insert cavity	1	Suitable
INA	Inactive	2	Natural start	5	Drilled start	2	Unsuitable
		3	Drilled cavity				

\* These clusters were analyzed and "taken" by Transformation projects, but project impacts within this partition are currently being re-analyzed by MCOE projects.

Table 3-9 (cont.). Red-cockaded woodpecker cavity trees impacted within active clusters impacted by Fiscal Year 2009 - 2011 **Alternative B**, MCOE projects, Fort Benning, Georgia.

Fiscal Year	Project Number	Project Name	Ammunition	Cluster Number	Cavity Tree	Tree Taken? (Yes (Y)/ No (N))	Impact within 50 feet? (Y/N)	Impact within 51 - 200 feet? (Y/N)	Harassment	Activity Status	Stage	Cavity Condition	Nest tree History					
2011	64551	Multipurpose Training Range Beaten Path	25mm, 120mm, 7.62mm, 5.56mm & .50 Cal	K13-02	3514	N	N	N	N	INA	1	2						
					3544A	N	N	N	N	INA	4	2						
					4943A	N	N	N	N	ACT	4	1						
					4944A	N	N	N	N	ACT	4	1						
					4945A	N	N	Y	N	INA	4	1						
					4946A	N	N	N	N	ACT	4	1						
					5433	N	N	N	N	INA	1	1						
					5844	N	N	N	N	ACT	1	1						
				K13-04	3059	Y	-	-	-	INA	1	1						
					3086A	Y	-	-	-	ACT	4	1						
					3087A	Y	-	-	-	INA	4	1						
					4686	Y	-	-	-	INA	1	1						
					4687	Y	-	-	-	INA	1	1						
					4809	Y	-	-	-	ACT	1	1						
					5674A	Y	-	-	-	INA	3	2						
					5678A	Y	-	-	-	ACT	4	1						
					5731	Y	-	-	-	ACT	1	1						
					5852	Y	-	-	-	ACT	1	1						
					65070	Multipurpose Machine Gun Range (MPMG2)	7.62mm & .50 Cal	A14-03R	0866	N	N	Y		N	ACT	1	1	
									3412A	N	N	Y		N	INA	3	1	
	4204	N	N	Y					N	ACT	1	1						
	4267A	N	N	N					N	INA	4	1						
	5551	Y	-	-					-	ACT	1	1						
	A17-02 *	3563	Y	-				-	-	ACT	1	1						
		4329	Y	-				-	-	INA	1	1						
		4751A	Y	-				-	-	ACT	4	2						
		4752A	Y	-				-	-	INA	4	1						
		4846	Y	-				-	-	INA	1	1						
		5753	Y	-				-	-	ACT	1	1						
	A17-06	0320	Y	-				-	-	INA	1	1						
		2802	Y	-				-	-	INA	2	2						
		3329	Y	-				-	-	INA	1	2						
		3432	Y	-				-	-	ACT	1	1						
		3630	Y	-				-	-	INA	2	2						
		3681	Y	-				-	-	INA	2	2						
		4512	Y	-				-	-	ACT	2	2						
		4513	Y	-				-	-	ACT	1	1						
		4514	Y	-				-	-	INA	2	2						
		4515	Y	-				-	-	INA	2	2						
		4516	Y	-				-	-	ACT	1	1						
		4782	Y	-				-	-	ACT	1	1						
		5621	Y	-				-	-	ACT	1	1						
	A17-08	3692A	Y	-				-	-	INA	4	1						
		3949	Y	-				-	-	INA	1	1						
4245		Y	-	-				-	ACT	1	1							
4933		Y	-	-				-	INA	1	2							
5073		Y	-	-	-	ACT	1	1										

**Activity Status**  
 ACT Active  
 INA Inactive

**Stage**  
 1 Natural RCW cavity  
 2 Natural start  
 3 Drilled cavity  
 4 Insert cavity  
 5 Drilled start

**Cavity Condition**  
 1 Suitable  
 2 Unsuitable

\* These clusters were analyzed and "taken" by Transformation projects, but project impacts within this partition are currently being re-analyzed by MCOE projects.

Table 3-9 (cont.). Red-cockaded woodpecker cavity trees impacted within active clusters impacted by Fiscal Year 2009 - 2011 **Alternative B**, MCOE projects, Fort Benning, Georgia.

Fiscal Year	Project Number	Project Name	Ammunition	Cluster Number	Cavity Tree	Tree Taken? (Yes (Y)/ No (N))	Impact within 50 feet? (Y/N)	Impact within 51 - 200 feet? (Y/N)	Harassment	Activity Status	Stage	Cavity Condition	Nest tree History
2011	65070	Multipurpose Machine Gun Range (MPMG2)	7.62mm & .50 Cal	A17-11R	2405	Y	-	-	-	INA	1	2	2007 - 2008
					2545A	Y	-	-	-	ACT	4	1	
					2547A	Y	-	-	-	ACT	4	1	
					2548A	Y	-	-	-	ACT	4	2	
					3308A	Y	-	-	-	INA	5	2	
					3680	Y	-	-	-	INA	1	2	
					4201	Y	-	-	-	INA	2	1	
					4560	Y	-	-	-	ACT	1	1	
					4845	Y	-	-	-	INA	2	2	
					5391	Y	-	-	-	ACT	1	1	
					A17-13	3628	Y	-	-	-	INA	1	
				3845A		Y	-	-	-	INA	4	2	
				3846A		Y	-	-	-	INA	4	2	
				3847A		Y	-	-	-	INA	4	2	
				4234		Y	-	-	-	ACT	1	1	
				4235		Y	-	-	-	INA	1	2	
				4781A		Y	-	-	-	INA	4	2	
				4860		Y	-	-	-	ACT	1	1	
				5388		Y	-	-	-	ACT	1	1	
				5880		Y	-	-	-	ACT	1	2	
				<b>Total number of trees impacted in 2011</b>						<b>61</b>	<b>0</b>	<b>5</b>	

**Activity Status**

ACT Active  
INA Inactive

**Stage**

1	Natural RCW cavity	4	Insert cavity
2	Natural start	5	Drilled start
3	Drilled cavity		

**Cavity Condition**

1	Suitable
2	Unsuitable

\* These clusters were analyzed and "taken" by Transformation projects, but project impacts within this partition are currently being re-analyzed by MCOE projects.

Table 3-10. Red-cockaded woodpecker cavity trees impacted within inactive clusters impacted by Fiscal Year 2009 - 2012 **Alternative B**, MCOE projects, Fort Benning, Georgia.

Fiscal Year	Project Number	Project Name	Ammunition	Cluster Number	Cavity Tree	Tree Taken? (Yes (Y)/ No (N))	Impact within 50 feet? (Y/N)	Impact within 51 - 200 feet? (Y/N)	Harassment	Activity Status	Stage	Cavity Condition	Nest tree History	
2009	65554	Construct Training Area Roads Paved		O09-03R	3768A	N	N	Y	-	INA	4	1	-	
					3769A	N	N	Y	-	INA	4	1	-	
					3770A	N	N	Y	-	INA	4	1	-	
					3771A	N	N	Y	-	INA	4	1	-	
	69358	Range Access Road - Good Hope MTA		HCC-01R	4397A	N	N	N	-	INA	4	2	-	
					4417A	N	N	N	-	INA	4	2	-	
					4418A	N	N	Y	-	INA	4	2	-	
	69743	Southern Training Area Infrastructure - Maneuver Area		D17-02	176	N	N	N	-	INA	1	1	-	
					1599	N	N	N	-	INA	1	1	-	
					1600	N	N	Y	-	INA	1	2	-	
					1823	N	N	N	-	INA	1	2	-	
					2387	N	N	N	-	INA	1	1	-	
					3871	N	N	N	-	INA	1	2	-	
					4536	N	N	N	-	INA	2	2	-	
					4537	N	N	Y	-	INA	2	2	-	
					5604	N	N	N	-	INA	1	1	-	
					F01-02R	4632A	N	N	Y	-	INA	4	2	-
						4633A	N	N	Y	-	INA	4	1	-
						4634A	N	N	Y	-	INA	4	1	-
						4635A	N	N	Y	-	INA	4	1	-
	72017	Vehicle Recovery Training Area		R01-02R	2613A	Y	-	-	-	INA	4	2	-	
					2614A	Y	-	-	-	INA	4	2	-	
					2632A	Y	-	-	-	INA	4	2	-	
					2633A	Y	-	-	-	INA	4	2	-	
5609A					N	N	Y	-	INA	4	2	-		
5610A					N	N	Y	-	INA	3	1	-		
5611A					N	N	Y	-	INA	4	1	-		
5612A					N	N	Y	-	INA	3	1	-		
2012	65246	Recreation Centers, Harmony Church and SandHill		SHC-01R	3245	N	N	Y	-	INA	1	2	-	
<b>Total number of trees impacted</b>						<b>4</b>	<b>0</b>	<b>16</b>						

**Activity Status**  
 ACT Active  
 INA Inactive

**Stage**  
 1 Natural RCW cavity  
 2 Natural start  
 3 Drilled cavity  
 4 Insert cavity  
 5 Drilled start

**Cavity Condition**  
 1 Suitable  
 2 Unsuitable

Table 3-11. Red-cockaded woodpecker (RCW) groups impacted directly or indirectly using the Standard for Managed Stability (USFWS 2003a) for Fort Benning MCOE projects, **Alternative B**, Fort Benning, Georgia.

Impacted Cluster	Habitat Deficient	Total Acreage Removed by Project (Suitable/Potentially Suitable)	# of Cavity Trees Removed	Take by Cavity Tree Loss	Take by Habitat/Forage Loss	Take by Harassment	Group Level Take <sup>1</sup>	Neighborhood Level Take <sup>1,2</sup>
	Pre-Project							
A06-01	N	1.79	0	N	N	N	N	N
A07-01	Y	2.96	0	N	Y	-	-	-
A08-01	N	4.42	0	N	N	N	N	N
A08-02a	N	3.09	0	N	N	N	N	N
A08-03	N	0.00	0	N	N	N	N	N
A08-04	Y	0.00	0	N	N	N	N	N
A09-03R	N	13.28	0	N	N	N	N	N
A09-04R	Y	0.00	0	N	N	N	N	N
A09-05	N	3.98	0	N	N	N	N	N
A14-03R	Y	38.20	1 of 5	N	Y	-	-	-
A17-01	N	117.97	5 of 5	Y	Y	-	-	-
A17-02	Y	60.44	6 of 6	Y	Y	-	-	-
A17-03	N	108.27	10 of 10	Y	Y	-	-	-
A17-04	N	70.89	0	N	N	N	N	N
A17-05	N	91.74	9 of 9	Y	Y	-	-	-
A17-06	N	96.51	13 of 13	Y	Y	-	-	-
A17-07	N	92.43	8 of 8	Y	Y	-	-	-
A17-08	N	111.84	5 of 5	Y	Y	-	-	-
A17-11R	N	106.53	10 of 10	Y	Y	-	-	-
A17-12R	Y	4.75	0	N	Y	-	-	-
A17-13	N	104.78	10 of 10	Y	Y	-	-	-
A17-14a	N	86.65	8 of 8	Y	Y	-	-	-
A17-14b	N	56.36	2 of 2	Y	Y	-	-	-
A20-04	N	6.47	0	N	N	N	Y	-
A20-06	N	20.46	0	N	N	N	N	N
BB03-01R	Y	2.02	0	N	Y	-	-	-
BB04-01R	N	7.48	0	N	N	N	N	N
BB05-01R	N	13.21	0	N	N	N	N	N
C01-02	N	2.34	0	N	N	N	N	N
C01-03	N	4.96	0	N	N	N	N	N
C01-06	N	9.44	0	N	N	N	N	N
C02-02	N	16.56	0	N	N	N	N	N
D05-02R	N	34.50	0	N	N	N	N	N
D05-04R	N	121.72	0	N	N	N	N	N
D06-01R	Y	0.03	0	N	Y	-	-	-
D08-01R	N	46.40	0	N	Y	-	-	-
D10-01	Y	2.50	0	N	Y	-	-	-
D11-01	N	49.86	0	N	Y	-	-	-
D11-02	N	88.91	7 of 7	Y	Y	-	-	-
D12-01	N	13.87	0	N	N	N	N	N

Table 3-11 (cont.). Red-cockaded woodpecker (RCW) groups impacted directly or indirectly using the Standard for Managed Stability (USFWS 2003a) for Fort Benning MCOE projects, **Alternative B**, Fort Benning, Georgia.

Impacted Cluster	Habitat Deficient	Total Acreage Removed by Project (Suitable/Potentially Suitable)	# of Cavity Trees Removed	Take by Cavity Tree Loss	Take by Habitat/Forage Loss	Take by Harassment	Group Level Take <sup>1</sup>	Neighborhood Level Take <sup>1,2</sup>
	Pre-Project							
D16-01	Y	18.50	0	N	Y	-	-	-
D16-02	Y	16.55	0	N	Y	-	-	-
D17-01	N	59.73	0	N	Y	-	-	-
D17-03	N	62.30	0	N	Y	-	-	-
D17-04R	N	43.23	0	N	Y	-	-	-
E02-01	N	1.96	0	N	N	N	N	N
E04-01	N	49.27	3 of 8	N	Y	-	-	-
F02-01R	Y	41.86	0	N	Y	-	-	-
HCC-08R	N	0.61	0	N	N	N	N	N
HCC-10R	N	18.84	2 of 10	N	N	Y	-	-
HCC-11R	Y	0.93	0	N	Y	-	-	-
J01-02R	Y	2.88	0	N	Y	-	-	-
J02-02R	Y	4.69	5 of 9	Y	Y	-	-	-
J06-03	N	36.99	0	N	N	N	N	N
K02-01	Y	0.48	6 of 6	Y	Y	-	-	-
K08-03	N	12.50	0	N	N	N	N	N
K08-04	N	13.78	0	N	N	N	N	N
K09-01	N	1.20	0	N	N	N	N	N
K09-02R	N	19.90	0	N	N	N	N	N
K09-03R	N	9.84	1 of 8	N	N	N	N	N
K11-02	N	59.34	0	N	N	N	Y	-
K11-04R	Y	9.29	0	N	Y	-	-	-
K12-01	N	45.82	6 of 7	Y	N	-	-	-
K13-02	N	58.38	0	N	Y	-	-	-
K13-04	N	61.90	10 of 10	Y	Y	-	-	-
K13-05R	Y	12.77	0	N	Y	-	-	-
K13-06	N	0.63	0	N	N	N	Y	-
K21-02R	N	32.19	0	N	N	N	N	N
K21-05R	N	68.78	0	N	N	N	N	N
KPR-01	N	18.43	0	N	N	N	N	N
L02-02R	N	17.31	0	N	N	N	Y	-
L03-01	Y	4.66	0	N	Y	-	-	-
M01-01	Y	1.69	0	N	Y	-	-	-
M08-01	N	12.05	2 of 9	N	N	Y	-	-
M08-02a	N	9.16	0	N	N	N	N	N
M08-02b	N	9.36	1 of 5	N	N	Y	-	-
M08-04R	N	2.63	0	N	N	N	N	N
M08-05R	N	2.10	0	N	N	N	N	N
N01-02	N	3.34	0	N	N	N	N	N
O01-01	N	2.31	0	N	N	N	N	N
O01-02	Y	4.45	0	N	Y	-	-	-

Table 3-11 (cont.). Red-cockaded woodpecker (RCW) groups impacted directly or indirectly using the Standard for Managed Stability (USFWS 2003a) for Fort Benning MCOE projects, **Alternative B**, Fort Benning, Georgia.

Impacted Cluster	Habitat Deficient	Total Acreage Removed by Project (Suitable/Potentially Suitable)	# of Cavity Trees Removed	Take by Cavity Tree Loss	Take by Habitat/Forage Loss	Take by Harassment	Group Level Take <sup>1</sup>	Neighborhood Level Take <sup>1,2</sup>
	Pre-Project							
O01-03	N	9.43	0	N	N	N	N	N
O01-04R	N	12.82	0	N	N	N	N	N
O02-01R	N	9.64	0	N	N	N	N	N
O03-01	Y	5.74	6 of 9	Y	Y	-	-	-
O03-02	N	20.77	0	N	N	N	N	N
O03-03	Y	8.55	4 of 9	Y	Y	-	-	-
O03-04	Y	5.26	0	N	Y	-	-	-
O03-05	N	17.67	0	N	N	N	N	N
O03-06R	N	22.34	0	N	N	N	N	N
O03-07	N	10.42	0	N	N	N	N	N
O04-01	Y	0.00	2 of 7	N	Y	-	-	-
O04-03a	Y	0.00	0	N	Y	-	-	-
O04-03b	Y	4.37	3 of 5	Y	Y	-	-	-
O05-01	N	24.75	0	N	N	N	N	N
O05-02	N	38.74	1 of 7	N	Y	-	-	-
O05-03R	N	36.44	0	N	N	N	N	N
O07-01R	N	12.13	0	N	N	N	Y	-
O07-03R	N	9.34	0	N	N	N	Y	-
O08-01	Y	6.53	0	N	Y	-	-	-
O08-02	N	3.70	0	N	Y	-	-	-
O09-02	N	0.00	0	N	N	N	Y	-
O10-01	N	12.20	0	N	N	N	N	N
O10-02	Y	5.08	0	N	Y	-	-	-
O10-03	N	10.51	0	N	N	N	N	N
O10-04	N	12.48	0	N	N	N	N	N
O11-01	N	4.84	0	N	N	N	N	N
O11-02	Y	13.77	1	N	Y	-	-	-
O13-01	Y	1.81	1 of 12	N	Y	-	-	-
O13-06R	Y	7.35	0	N	Y	-	-	-
O14-03R	N	3.20	0	N	N	N	N	N
O15-01	Y	0.00	0	N	Y	-	-	-
O15-03	Y	2.83	0	N	Y	-	-	-
Q02-02	N	50.20	0	N	N	N	N	N
Q02-03	N	79.66	3 of 10	N	N	Y	-	-
Q02-04R	N	71.17	1 of 6	N	Y	-	-	-
R02-01R	N	28.34	0	N	Y	-	-	-
S01-01	N	0.80	0	N	N	N	N	N
S02-01R	N	6.80	0	N	N	N	N	N
S03-01R	Y	2.12	0	N	Y	-	-	-
SHC-02	N	0.52	0	N	N	N	Y	-

Table 3-11 (cont.). Red-cockaded woodpecker (RCW) groups impacted directly or indirectly using the Standard for Managed Stability (USFWS 2003a) for Fort Benning MCOE projects, **Alternative B**, Fort Benning, Georgia.

Impacted Cluster	Habitat Deficient	Total Acreage Removed by Project (Suitable/Potentially Suitable)	# of Cavity Trees Removed	Take by Cavity Tree Loss	Take by Habitat/Forage Loss	Take by Harassment	Group Level Take <sup>1</sup>	Neighborhood Level Take <sup>1,2</sup>
	Pre-Project							
T02-01	Y	5.07	0	N	Y	-	-	-
T02-02R	Y	7.59	0	N	Y	-	-	-
<b>CLUSTER NOT IMPACTED BY MCOE PROJECTS</b>								
D11-03R	-	-	0	-	-	-	N	Y
J01-01	-	-	0	-	-	-	N	Y
J01-03R	-	-	0	-	-	-	N	Y
K10-10R	-	-	0	-	-	-	N	Y
K11-03	-	-	0	-	-	-	N	Y
K14-01R	-	-	0	-	-	-	N	Y
O04-02	-	-	0	-	-	-	N	Y
O06-03R	-	-	0	-	-	-	N	Y
O06-04R	-	-	0	-	-	-	N	Y
O12-02	-	-	0	-	-	-	N	Y
<b>TOTAL</b>		<b>3,055.22</b>	<b>151</b>	<b>19</b>	<b>58</b>	<b>4</b>	<b>8</b>	<b>10</b>

<sup>1</sup> If a RCW cluster is "taken" by habitat loss or cavity tree loss, it was not considered at the group or neighborhood level.

<sup>2</sup> Additional takes due to Neighborhood impacts are conceivable due to habitat fragmentation, reduction of productivity and dispersal impairment.

<sup>3</sup> This group was not considered a "take" because minimization efforts were made and no suitable or potentially suitable habitat was impacted.

Post-project results are presented in Tables 3-2, 3.3, 3-11 – 15 Figures 3-3 – 3-13 and Appendices G, H and I.

**FB Cluster A06-01**: This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 12 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 7,067.44 ft<sup>2</sup> of pine BA on 153.64 acres of suitable habitat and 734.22 ft<sup>2</sup> of pine BA on 33.72 acres of future potential habitat. There were 35.23 acres of forested habitat within the A20 Impact Area. There was no potentially suitable habitat (Table 3-2).

The pre- project RS foraging habitat totals were 7,801.66 ft<sup>2</sup> of pine BA on 187.36 acres of future potential habitat. There were 35.23 acres of forested habitat within the A20 Impact Area. There was no suitable or potentially suitable habitat (Table 3-3).

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 96.77 ft<sup>2</sup> of pine BA on 2.42 acres (Table 3-6 and Figure 3-3).

The post- project SMS foraging habitat totals were 6,985.10 ft<sup>2</sup> of pine BA on 151.85 acres of suitable habitat and 719.79 ft<sup>2</sup> of pine BA on 33.09 acres of future potential habitat. There were 35.23 acres of forested habitat within the A20 Impact Area. There was no potentially suitable habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 7,704.89 ft<sup>2</sup> of pine BA on 184.94 acres of future potential habitat. There were 35.23 acres of forested habitat within the A20 Impact Area. There was no suitable or potentially suitable habitat (Table 3-3). This partition can meet the RS in the future (Table 3-15).

**FB Cluster A07-01**: This cluster had a PBG in 2004, 2006, 2007 and 2008; there was a solitary male in 2005 (Table 3-4). There were 7 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

Table 3-12. The number of red-cockaded woodpecker clusters requiring Incidental Takes ("Take") by the fiscal year of construction initiation, **Alternative B** Maneuver Center of Excellence projects, Fort Benning, Georgia. **The table does not include group or neighborhood takes.**

Fiscal Year "Taken"	Project Number (PN)	Project Resulting in "Take"	Clusters "Taken"
2009	64551	Multit-purpose Training Range (MPTR)	K11-04R
	65383	Stationary Tank Range (ST2)*	K02-01***
	65554	Construct Training Area Roads Paved*	J01-02R J02-02R*** O08-01 O08-02 O10-02 O13-06R T02-01
	67457	Infrastructure Support	S03-01R
	69358	Range Access Road - Good Hope MTA*	HCC-10R****
	69741	Alternate 19D/K OSUT Training Area*	Q02-03 Q02-04R
	69742	Northern Training Area Infrastructure	O03-01*** O03-03*** O03-04 O11-02R O15-01 O15-03

Table 3-12 (cont.). The number of red-cockaded woodpecker clusters requiring Incidental Takes ("Take") by the fiscal year of construction initiation, **Alternative B** Maneuver Center of Excellence projects, Fort Benning, Georgia. **The table does not include group or neighborhood takes.**

Fiscal Year "Taken"	Project Number (PN)	Project Resulting in "Take"	Clusters "Taken"
2009 cont'd	69743	Southern Training Area Infrastructure*	D06-01R D08-01R D10-01 D11-01 D11-02*** D16-01 D16-02 D17-01 D17-03 D17-04R E04-01 F02-01R
	72017	Vehicle Recovery Area	R02-01R

**Total FY 2009 = 32 Takes**

2010	65557	Repair Existing Training Area Roads, Phase 1*	A07-01 BB03-01R HCC-11R L03-01 M01-01 M08-01**** M08-02b**** O01-02 O04-01 O04-03a O04-03b*** O05-02 O13-01
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Table 3-12 (cont.). The number of red-cockaded woodpecker clusters requiring Incidental Takes ("Take") by the fiscal year of construction initiation, **Alternative B** Maneuver Center of Excellence projects, Fort Benning, Georgia. **The table does not include group or neighborhood takes.**

Fiscal Year "Taken"	Project Number (PN)	Project Resulting in "Take"	Clusters "Taken"
2010 cont'd	68733	Multi-purpose Machine Gun Range (MPMG1)*	A14-03R A17-01*** A17-03*** A17-05*** A17-06*** A17-07*** A17-08*** A17-13*** A17-14a A17-14b

**Total FY 2010 = 23 Takes**

2011	64551	Beaten Area MPTR	K12-01 ** K13-02 K13-04*** K13-05R
	65070	Multi-purpose Machine Gun Range (MPMG2)*	A17-02*** A17-11R*** A17-12R

**Total FY 2011 = 7 Takes**

2012	62953	Rail Loading Facility Expansion*	T02-02R
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**Total FY 2012 = 1 Takes**

When a cluster was impacted by 2 projects in the same fiscal year, the project that removed the most habitat was considered to result in "take".

\* Asterisk indicates reanalyzed Transformation projects.

\*\* Cluster "taken" by cavity tree removal.

\*\*\* Cluster "taken" by foraging habitat and cavity tree removal.

\*\*\*\* Cluster "taken" by harrassment.

Table 3-13. Post- project suitable and potentially suitable foraging habitat using the Standard for Managed Stability (USFWS 2003a) with a high risk of loblolly pine decline for red-cockaded woodpecker partitions impacted by Alternative B MCOE projects, Fort Benning, Georgia.

Cluster	Total Suitable and Potentially Suitable Acreage	Total High-Risk Suitable and Potentially Suitable Acreage	Percent of Acres At High Risk of Loblolly Pine Decline
A06-01	151.85	0.00	0.00%
A07-01	32.63	11.91	36.50%
A08-01	154.85	23.46	15.15%
A08-02a	85.26	0.00	0.00%
A08-03	97.79	0.00	0.00%
A08-04	27.11	0.00	0.00%
A09-03R	106.68	8.30	7.78%
A09-04R	82.44	55.38	67.18%
A09-05	120.97	54.29	44.88%
A14-03R	29.24	2.87	9.82%
A17-01	0.00	0.00	0.00%
A17-02	2.26	0.00	0.00%
A17-03	0.00	0.00	0.00%
A17-04	141.05	16.70	11.84%
A17-05	18.99	4.66	24.54%
A17-06	0.15	0.00	0.00%
A17-07	0.48	0.00	0.00%
A17-08	0.00	0.00	0.00%
A17-11R	16.79	0.00	0.00%
A17-12R	53.73	0.00	0.00%
A17-13	0.00	0.00	0.00%
A17-14a	0.00	0.00	0.00%
A17-14b	26.55	16.52	62.22%
A20-04	88.66	13.33	15.03%
A20-06	101.09	18.21	18.01%
BB03-01R	38.32	3.50	9.13%
BB04-01R	91.71	25.28	27.57%
BB05-01R	175.45	44.28	25.24%
C01-02	165.36	47.56	28.76%
C01-03	85.82	17.89	20.85%
C01-06	93.13	34.64	37.20%
C02-02	195.73	13.86	7.08%
D05-02R	91.05	7.43	8.16%
D05-04R	122.15	60.84	49.81%
D06-01R	63.09	7.97	12.63%
D08-01R	39.61	21.69	54.76%
D10-01	45.68	22.30	48.82%
D11-01	44.15	12.83	29.06%
D11-02	0.15	0.00	0.00%
D12-01	93.01	2.91	3.13%
D16-01	38.64	0.00	0.00%
D16-02	0.00	0.00	0.00%
D17-01	84.82	71.23	83.98%
D17-03	51.79	14.35	27.71%
D17-04R	47.56	0.00	0.00%

Table 3-13 (cont'd). Post- project suitable and potentially suitable foraging habitat using the Standard for Managed Stability (USFWS 2003a) with a high risk of loblolly pine decline for red-cockaded woodpecker partitions impacted by Alternative B MCOE projects, Fort Benning, Georgia.

Cluster	Total Suitable and Potentially Suitable Acreage	Total High Risk Suitable and Potentially Suitable Acreage	Percent of Acres At High Risk of Loblolly Pine Decline
E02-01	106.50	6.96	6.54%
E04-01	65.73	15.86	24.13%
F02-01R	11.82	0.87	7.36%
HCC-08R	96.20	21.07	21.90%
HCC-10R	113.15	27.22	24.06%
HCC-11R	10.62	1.02	9.60%
J01-02R	48.04	0.34	0.71%
J02-02R	13.35	0.00	0.00%
J06-03	178.15	4.35	2.44%
K02-01	0.04	0.04	100.00%
K08-03	85.48	26.35	30.83%
K08-04	136.31	34.49	25.30%
K09-01	89.08	0.16	0.18%
K09-02R	107.09	0.01	0.01%
K09-03R	178.90	47.17	26.37%
K11-02	164.98	22.53	13.66%
K11-04R	37.21	2.65	7.12%
K12-01	91.29	8.64	9.46%
K13-02	41.60	8.64	20.77%
K13-04	32.91	15.46	46.98%
K13-05R	42.30	1.30	3.07%
K13-06	162.60	57.20	35.18%
K21-02R	142.83	0.39	0.27%
K21-05R	176.60	1.26	0.71%
KPR-01	131.35	83.35	63.46%
L02-02R	124.17	16.30	13.13%
L03-01	45.83	6.16	13.44%
M01-01	46.62	2.61	5.60%
M08-01	123.04	30.10	24.46%
M08-02a	131.73	10.10	7.67%
M08-02b	76.98	1.14	1.48%
M08-04R	92.58	34.14	36.88%
M08-05R	176.68	69.64	39.42%
N01-02	91.25	40.38	44.25%
O01-01	136.76	26.99	19.74%
O01-02	31.76	2.00	6.30%
O01-03	100.32	32.14	32.04%
O01-04R	108.75	17.11	15.73%
O02-01R	106.35	3.56	3.35%
O03-01	40.53	9.50	23.44%
O03-02	95.65	1.48	1.55%
O03-03	37.27	14.72	39.50%
O03-04	31.10	11.52	37.04%
O03-05	178.80	45.57	25.49%
O03-06R	99.98	34.60	34.61%
O03-07	111.96	49.92	44.59%
O04-01	0.00	0.00	0.00%
O04-03a	0.00	0.00	0.00%

Table 3-13 (cont'd). Post- project suitable and potentially suitable foraging habitat using the Standard for Managed Stability (USFWS 2003a) with a high risk of loblolly pine decline for red-cockaded woodpecker partitions impacted by Alternative B MCOE projects, Fort Benning, Georgia.

Cluster	Total Suitable and Potentially Suitable Acreage	Total High Risk Suitable and Potentially Suitable Acreage	Percent of Acres At High Risk of Loblolly Pine Decline
O04-03b	21.81	1.18	5.41%
O05-01	204.13	48.42	23.72%
O05-02	61.60	1.87	3.04%
O05-03R	157.13	32.07	20.41%
O07-01R	119.61	80.09	66.96%
O07-03R	139.16	117.96	84.77%
O08-01	29.89	14.94	49.98%
O08-02	73.99	32.54	43.98%
O09-02	77.14	14.39	18.65%
O10-01	100.26	66.20	66.03%
O10-02	69.70	43.83	62.88%
O10-03	101.42	53.57	52.82%
O10-04	126.78	82.06	64.73%
O11-01	75.00	19.24	25.65%
O11-02R	57.73	6.75	11.69%
O13-01	58.38	40.71	69.73%
O13-06R	67.06	41.16	61.38%
O14-03R	152.28	75.55	49.61%
O15-01	33.21	2.47	7.44%
O15-03	65.22	24.53	37.61%
Q02-02	103.73	58.16	56.07%
Q02-03	142.23	67.80	47.67%
Q02-04R	33.30	27.30	81.98%
R02-01R	72.40	14.64	20.22%
S01-01	126.43	42.24	33.41%
S02-01R	113.79	40.07	35.21%
S03-01R	44.02	14.69	33.37%
SHC-02	153.18	76.38	49.86%
T02-01	24.20	23.34	96.45%
T02-02R	50.15	40.53	80.82%

cluster is taken by Alternative B Transformation

Table 3-14. Post- project ability of red-cockaded woodpecker (RCW) clusters "taken" by **Alternative B** Maneuver Center of Excellence projects to meet the Recovery Standard (RS) (USFWS 2003a) in the future, Fort Benning, Georgia. The table contains only those clusters taken due to loss of foraging habitat.

<b><u>Cannot Meet RS</u></b> <b>( &lt; 120 Acres of Manageable Habitat)</b>	<b><u>May Not Meet RS</u></b> <b>(121-149 Acres of Manageable Habitat)</b>	<b><u>Can meet RS</u></b> <b>( ≥ 150 Acres of Manageable Habitat)</b>
A14-03R      L03-01	D08-01R	A07-01
A17-01      M01-01	D10-01	BB03-01R
A17-02      O03-01	J02-02R	D16-01
A17-03      O04-01	O01-02	D17-01
A17-05      O04-03a	R02-01R	HCC-11R
A17-06      O04-03b	S03-01R	J01-02R
A17-07      O05-02		O03-03
A17-08      O11-02		O03-04
A17-11R      O13-01		O08-01
A17-12R      O15-01		O08-02
A17-13      O15-03		O10-02
A17-14a      Q02-04R		O13-06R
A17-14b		T02-01
D06-01R		T02-02R
D11-01		
D11-02		
D16-02		
D17-03		
D17-04R		
E04-01		
F02-01R		
K02-01		
K11-04R		
K13-02		
K13-04		
K13-05		

Table 3-15. Post-project ability of red-cockaded woodpecker (RCW) clusters **not "taken"** due to loss of foraging habitat by **Alternative B** Maneuver Center of Excellence projects to meet the Recovery Standard (RS) (USFWS 2003a) in the future, Fort Benning, Georgia.

<u>Cannot Meet RS</u> ( <b>&lt; 120 Acres of Manageable Habitat</b> )	<u>May Not Meet RS</u> ( <b>121-149 Acres of Manageable Habitat</b> )	<u>Can meet RS</u> ( <b>≥ 150 Acres of Manageable Habitat</b> )	
A08-02a	A17-04	A06-01	O05-01
A08-03	A20-06	A08-01	O05-03R
A09-03R	BB04-01R	A08-04	O07-01R
C01-06	C01-03	A09-04R	O07-03R
D05-02R	D05-04R	A09-05	O10-01
K08-03R	HCC-10R <sup>3</sup>	A20-04	O14-03R
K09-02R	K08-04	BB05-01R	S02-01R
M08-02b <sup>3</sup>	K09-01	C01-02	SHC-02
Q02-02	M08-02a	C02-02	
	N01-02	D12-01	
	O01-01	E02-01R	
	O01-03	HCC-08R	
	O01-04R	J06-03	
	O03-02	K09-03R	
	O09-02	K11-02	
	O10-03	K12-01 <sup>1</sup>	
	O10-04	K13-06	
	O11-01	K21-02R	
	Q02-03 <sup>3</sup>	K21-05R	
	S01-01	KPR-01	
		L02-02R	
		M08-01 <sup>3</sup>	
		M08-04R	
		M08-05R	
		O02-01R	
		O03-05	
		O03-06R	
		O03-07	

<sup>1</sup>Cluster is taken to due cavity tree loss.

<sup>2</sup>Cluster is taken indirectly at the group level.

<sup>3</sup>Cluster is taken due to harrassment.

The pre- project SMS foraging habitat totals were 1,313.44 ft<sup>2</sup> of pine BA on 35.59 acres of suitable habitat and 4,009.86 ft<sup>2</sup> of pine BA on 147.44 acres of future potential habitat. There was no potentially suitable habitat (Table 3-2).

The pre- project RS foraging habitat totals were 90.62 ft<sup>2</sup> of pine BA on 1.97 acres of potentially suitable habitat and 5,232.68 ft<sup>2</sup> of pine BA on 181.06 acres of future potential habitat. There was no suitable habitat (Table 3-3).

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 360.31 ft<sup>2</sup> of pine BA on 12.38 acres (Table 3-6 and Figure 3-3).

The post- project SMS foraging habitat totals were 1,212.80 ft<sup>2</sup> of pine BA on 32.63 acres of suitable habitat and 3,750.19 ft<sup>2</sup> of pine BA on 138.02 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 36.50% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 90.62 ft<sup>2</sup> of pine BA on 1.97 acres of potentially suitable habitat and 4,872.37 ft<sup>2</sup> of pine BA on 168.68 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition can meet the RS in the future (Table 3-14).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster A08-01**: This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 11 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 4,648.57 ft<sup>2</sup> of pine BA on 113.80 acres of suitable habitat, 1,709.06 ft<sup>2</sup> of pine BA on 45.47 acres of potentially suitable habitat and 377.04 ft<sup>2</sup> of pine BA on 27.96 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 6,734.67 ft<sup>2</sup> of pine BA on 187.23 acres of future potential habitat. There was no suitable or potentially suitable habitat (Table 3-3).

The 2009 Infrastructure Support – Utilities (PN 67457) will remove 75.82 ft<sup>2</sup> of pine BA on 2.73 acres. The 2009 Good Hope MTA Range Access Road (PN 69358) will remove 132.60 ft<sup>2</sup> of pine BA on 3.52 acres (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 4,517.83 ft<sup>2</sup> of pine BA on 110.54 acres of suitable habitat, 1,664.98 ft<sup>2</sup> of pine BA on 44.31 acres of potentially suitable habitat and 343.44 ft<sup>2</sup> of pine BA on 26.13 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 15.15% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 6,526.25 ft<sup>2</sup> of pine BA on 180.98 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster A08-02a:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 9 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 2,895.42 ft<sup>2</sup> of pine BA on 81.50 acres of suitable habitat and 294.55 ft<sup>2</sup> of pine BA on 6.85 acres of potentially suitable habitat. There was no future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 1,839.67 ft<sup>2</sup> of pine BA on 49.77 acres of potentially suitable habitat and 1,350.30 ft<sup>2</sup> of pine BA on 38.58 acres of future potential habitat. There was no suitable habitat (Table 3-3).

The 2009 Infrastructure Support – Utilities (PN 67457) will remove 33.97 ft<sup>2</sup> of pine BA on 0.79 acre. The 2009 Good Hope MTA Range Access Road (PN 69358) would remove 84.50 ft<sup>2</sup> of pine BA on 2.30 acres (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 2,832.42 ft<sup>2</sup> of pine BA on 79.70 acres of suitable habitat and 239.08 ft<sup>2</sup> of pine BA on 5.56 acres of potentially suitable habitat. There was no future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,784.20 ft<sup>2</sup> of pine BA on 48.48 acres of potentially suitable habitat and 1,287.30 ft<sup>2</sup> of pine BA on 36.78 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition cannot meet the RS in the future (Table 3-15).

**FB Cluster A08-03:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 10 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 4,009.39 ft<sup>2</sup> of pine BA on 97.79 acres of suitable habitat and 51.00 ft<sup>2</sup> of pine BA on 2.00 acres of future potential habitat. There was no potentially suitable habitat. There were 17.33 acres of forested habitat within the A20 Impact Area (Table 3-2).

The pre- project RS foraging habitat totals were 4,060.39 ft<sup>2</sup> of pine BA on 99.79 acres of future potential habitat. There was no suitable or potentially suitable habitat. There were 17.33 acres of forested habitat within the A20 Impact Area (Table 3-3).

The 2009 Anti-Armor Tracking and Live Fire Complex (PN 65078) will remove 5.74 acres of forested habitat within the A20 Impact Area (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 4,009.39 ft<sup>2</sup> of pine BA on 97.79 acres of suitable habitat and 51.00 ft<sup>2</sup> of pine BA on 2.00 acres of future potential habitat. There was no potentially suitable habitat. There were 11.59 acres of forested habitat within the A20 Impact Area (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 4,060.39 ft<sup>2</sup> of pine BA on 99.79 acres of future potential habitat. There was no suitable or potentially suitable habitat. There were 11.59 acres of forested habitat within the A20 Impact Area (Table 3-3). This partition cannot meet the RS in the future (Table 3-15).

**FB Cluster A08-04:** This cluster was inactive from 2004 to 2006 but had a PBG in 2007 and 2008 (Table 3-4) and contained 10 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 1,111.51 ft<sup>2</sup> of pine BA on 27.11 acres of suitable habitat. There was no potentially suitable or future potential habitat. There were 154.79 acres of forested habitat within the A20 Impact Area (Table 3-2).

The pre- project RS foraging habitat totals were 1,111.51 ft<sup>2</sup> of pine BA on 27.11 acres of future potential habitat. There was no suitable or potentially suitable habitat. There were 154.79 acres of forested habitat within the A20 Impact Area (Table 3-3).

The 2009 Anti-Armor Tracking and Live Fire Complex (PN 65078) will remove 6.96 acres of forested habitat within the A20 Impact Area (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 1,111.51 ft<sup>2</sup> of pine BA on 27.11 acres of suitable habitat. There was no potentially suitable or future potential habitat. There were 147.83 acres of forested habitat within the A20 Impact Area (Table 3-2). Despite pre-project deficiencies, this cluster will not be taken at the cluster level because of forested acreage within the A20 Impact Area (Tables 3-2, 3-11, 3-12 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,111.51 ft<sup>2</sup> of pine BA on 27.11 acres of future potential habitat. There was no suitable or potentially suitable habitat. There were 147.83 acres of forested habitat within the A20 Impact Area (Table 3-3). This partition cannot meet the RS in the future (Table 3-15).

**FB Cluster A09-03R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 10 cavity trees in various stages of completion and suitability (Appendix G). Construction of the Good Hope Range Access Road (PN 69358) will result in impacts within 50 feet of 1 cavity tree and within 51 to 200 feet of a second cavity tree (Table 3-9).

The pre- project SMS foraging habitat totals were 419.17 ft<sup>2</sup> of pine BA on 11.89 acres of suitable habitat, 3,526.72 ft<sup>2</sup> of pine BA on 108.07 acres of potentially suitable habitat and 0.00 ft<sup>2</sup> of pine BA on 8.40 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 3,945.89 ft<sup>2</sup> of pine BA on 128.36 acres of future potential habitat. There was no suitable or potentially suitable habitat.

The 2009 Alternate 19D/K OSUT Training Area – Construct Tank Trails (PN 69741) will remove 284.36 ft<sup>2</sup> of pine BA on 8.49 acres. The 2009 Good Hope MTA Range Access

Road (PN 69358) will remove 172.30 ft<sup>2</sup> of pine BA on 5.09 acres. The 2009 Good Hope Training Area Infrastructure (PN 69668) will remove 0.00 ft<sup>2</sup> of pine BA on 1.19 acres (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 161.67 ft<sup>2</sup> of pine BA on 4.64 acres of suitable habitat, 3,327.57 ft<sup>2</sup> of pine BA on 102.04 acres of potentially suitable habitat and 0.00 ft<sup>2</sup> of pine BA on 6.91 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to foraging habitat loss (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 7.78% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 3,489.24 ft<sup>2</sup> of pine BA on 113.59 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-15).

**FB Cluster A09-04R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 5 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 2,563.11 ft<sup>2</sup> of pine BA on 78.15 acres of suitable habitat and 130.85 ft<sup>2</sup> of pine BA on 4.29 acres of potentially suitable habitat and 2,680.81 ft<sup>2</sup> of pine BA on 121.29 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 5,374.77 ft<sup>2</sup> of pine BA on 203.73 acres of future potential habitat. There was no suitable or potentially suitable habitat (Table 3-3).

The 2009 Construction Buffer for Anti-Armor Tracking and Live Fire Complex (PN 65078) will remove 427.70 ft<sup>2</sup> of pine BA on 17.11 acres (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 2,563.11 ft<sup>2</sup> of pine BA on 78.15 acres of suitable habitat, 130.85 ft<sup>2</sup> of pine BA on 4.29 acres of potentially suitable habitat and 2,253.11 ft<sup>2</sup> of pine BA on 104.18 acres of future potential habitat (Table 3-2). Because minimization efforts have been made, and no suitable or potentially suitable habitat will be impacted, this cluster will not be taken at the cluster level despite pre-project deficiencies (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 67.18% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 4,947.07 ft<sup>2</sup> of pine BA on 186.62 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster A09-05:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 6 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 4,190.16 ft<sup>2</sup> of pine BA on 111.60 acres of suitable habitat, 405.51 ft<sup>2</sup> of pine BA on 13.35 acres of potentially suitable habitat and 1,206.58 ft<sup>2</sup> of pine BA on 50.12 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 5,802.25 ft<sup>2</sup> of pine BA on 175.07 acres of future potential habitat. There was no suitable or potentially suitable habitat (Table 3-3).

The 2009 Good Hope MTA Range Access Road (PN 69358) will remove 150.10 ft<sup>2</sup> of pine BA on 4.18 acres (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 4,049.56 ft<sup>2</sup> of pine BA on 107.77 acres of suitable habitat, 401.01 ft<sup>2</sup> of pine BA on 13.20 acres of potentially suitable habitat and 1,201.58 ft<sup>2</sup> of pine BA on 49.92 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 44.88% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 5,652.15 ft<sup>2</sup> of pine BA on 170.89 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster A14-03R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 5 cavity trees in various stages of completion and suitability (Appendix G). Construction of the 2011 Multipurpose Machine Gun Range (MPMG2) and beaten area (PN 65070) will remove 1 active cavity tree and have impacts within 51 to 200 feet of 3 other cavity trees (Table 3-9).

The pre- project SMS foraging habitat totals were 3,087.58 ft<sup>2</sup> of pine BA on 64.56 acres of suitable habitat, 95.99 ft<sup>2</sup> of pine BA on 2.88 acres of potentially suitable habitat and 1,146.84 ft<sup>2</sup> of pine BA on 31.61 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 2,452.84 ft<sup>2</sup> of pine BA on 47.17 acres of potentially suitable habitat and 1,877.57 ft<sup>2</sup> of pine BA on 51.88 acres of future potential habitat. There was no suitable habitat (Table 3-3).

Construction buffers for the 2010 MPMG1 and 2011 MPMG2 will remove 1,960.05 ft<sup>2</sup> of pine BA on 38.20 acres (Table 3-6 and Figure 3-5).

The post- project SMS foraging habitat totals were 1,127.53 ft<sup>2</sup> of pine BA on 26.36 acres of suitable habitat, 95.99 ft<sup>2</sup> of pine BA on 2.88 acres of potentially suitable habitat and 1,146.84 ft<sup>2</sup> of pine BA on 31.61 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-13). Loblolly pine that is at high risk of decline accounts for 9.82% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 554.84 ft<sup>2</sup> of pine BA on 10.67 acres of potentially suitable habitat and 1,815.52 ft<sup>2</sup> of pine BA on 50.18 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster A17-01:** This cluster had a PBG in 2007 and 2008 and unknown status in 2006 (Table 3-4). It had been designated as a relic site removed from management prior to 2006. This cluster had 5 cavity trees in various stages of completion and suitability (Appendix G). Construction of the 2010 MPMG1 and beaten area (PN 68733) will remove all 5 cavity trees, which will result in “take” of the cluster from loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 4,545.01 ft<sup>2</sup> of pine BA on 85.96 acres of suitable habitat and 1,509.58 ft<sup>2</sup> of pine BA on 32.01 acres of potentially suitable habitat. There was no future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 4,545.01 ft<sup>2</sup> of pine BA on 32.01 acres of potentially suitable habitat and 1,509.58 ft<sup>2</sup> of pine BA on 32.01 acres of future potential habitat. There was no suitable habitat (Table 3-3).

The 2010 MPMG1 (PN 68733) will remove 2,631.51 ft<sup>2</sup> of pine BA on 52.51 acres. The MPMG1 construction limits will remove 3,202.87 ft<sup>2</sup> of pine BA on 61.92 acres (Table 3-6 and Figure 3-5). The 2011 MPMG2 (PN 65070) will remove 220.21 ft<sup>2</sup> of pine BA on 3.54 acres (Table 3-7 and Figure 3-5).

There was no suitable, potentially suitable or future potential SMS foraging habitat post-project (Table 3-2). This cluster will also be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-13). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

There was no suitable, potentially suitable or future potential RS foraging habitat post-project (Table 3-3). This partition cannot meet the RS in the future (Table 3-14).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster A17-02:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 6 cavity trees in various stages of completion and suitability (Appendix G). Construction of the 2011 MPMG2 (PN 68733) and beaten area will remove all 6 cavity trees, which will result in “take” of the cluster from loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 3,298.06 ft<sup>2</sup> of pine BA on 62.70 acres of suitable habitat and 428.19 ft<sup>2</sup> of pine BA on 58.72 acres of future potential habitat. There was no potentially suitable habitat (Table 3-2).

The pre- project RS foraging habitat totals were 3,298.06 ft<sup>2</sup> of pine BA on 62.70 acres of potentially suitable habitat and 428.19 ft<sup>2</sup> of pine BA on 58.72 acres of future potential habitat. There was no suitable habitat (Table 3-3).

The 2011 MPMG2 (PN 65070) will remove 1,412.21 ft<sup>2</sup> of pine BA on 44.86 acres. The MPMG2 construction limits will remove 2,083.33 ft<sup>2</sup> of pine BA on 70.22 acres (Table 3-7 and Figure 3-5). The 2012 MPMG2 beaten area will remove 99.47 ft<sup>2</sup> of pine BA on 2.03 acres (Table 3-8 and Figure 3-5).

The post- project SMS foraging habitat totals were 110.74 ft<sup>2</sup> of pine BA on 2.26 acres of suitable habitat and 20.50 ft<sup>2</sup> of pine BA on 2.05 acres of future potential habitat. There was no potentially suitable habitat (Table 3-2). This cluster will also be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-13). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 110.74 ft<sup>2</sup> of pine BA on 2.26 acres of potentially suitable habitat and 20.50 ft<sup>2</sup> of pine BA on 2.05 acres of future potential habitat. There was no suitable habitat (Table 3-3). This partition cannot meet RS in the future (Table 3-14).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster A17-03:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 10 cavity trees in various stages of completion and suitability (Appendix G). Construction of the 2010 MPMG1 (PN 68733) and beaten area will remove all 10 cavity trees, which will result in “take” of the cluster from loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 4,660.04 ft<sup>2</sup> of pine BA on 88.10 acres of suitable habitat and 1,008.50 ft<sup>2</sup> of pine BA on 20.17 acres of potentially suitable habitat. There was no future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 2,805.40 ft<sup>2</sup> of pine BA on 53.95 acres of potentially suitable habitat and 2,863.14 ft<sup>2</sup> of pine BA on 54.32 acres of future potential habitat. There was no suitable habitat (Table 3-3).

The 2010 MPMG1 (PN 68733) will remove 4,925.31 ft<sup>2</sup> of pine BA on 93.99 acres. The MPMG1 construction limits will remove 686.55 ft<sup>2</sup> of pine BA on 13.19 acres (Table 3-6 and Figure 3-5). The 2011 MPMG2 (PN 65070) will remove 56.67 ft<sup>2</sup> of pine BA on 1.09 acre (Table 3-6 and Figure 3-5).

There was no suitable, potentially suitable or future potential SMS foraging habitat post-project (Table 3-2). This cluster will also be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-13). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

There was no suitable, potentially suitable or future potential RS foraging habitat post-project (Table 3-3). This partition cannot meet the RS in the future (Table 3-14).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster A17-04:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 9 cavity trees in various stages of completion and suitability (Appendix G). Construction of the 2010 MPMG1 (PN 68733) will impact 2 cavity trees within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 7,150.66 ft<sup>2</sup> of pine BA on 140.02 acres of suitable habitat, 4,049.31 ft<sup>2</sup> of pine BA on 71.92 acres of potentially suitable habitat and 3.77 ft<sup>2</sup> of pine BA on 3.98 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 2,042.04 ft<sup>2</sup> of pine BA on 39.27 acres of potentially suitable habitat and 9,161.70 ft<sup>2</sup> of pine BA on 176.65 acres of future potential habitat. There was no suitable habitat (Table 3-3).

The 2010 MPMG1 (PN 68733) construction limits will remove 3,845.51 ft<sup>2</sup> of pine BA on 70.89 acres (Table 3-6 and Figure 3-5).

The post- project SMS foraging habitat totals were 3,858.46 ft<sup>2</sup> of pine BA on 80.25 acres of suitable habitat, 3,496.00 ft<sup>2</sup> of pine BA on 60.80 acres of potentially suitable habitat and 3.77 ft<sup>2</sup> of pine BA on 3.98 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-13). Loblolly pine that is at high risk of decline accounts for 11.84% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,349.92 ft<sup>2</sup> of pine BA on 25.96 acres of potentially suitable habitat and 6,004.80 ft<sup>2</sup> of pine BA on 119.07 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition may meet the RS in the future (Table 3-15).

**FB Cluster A17-05:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 9 cavity trees in various stages of completion and suitability (Appendix G). Construction of the 2010 MPMG1 (PN 68733) will remove all 9 cavity trees, which will result in “take” of the cluster from loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 4,311.47 ft<sup>2</sup> of pine BA on 100.35 acres of suitable habitat, 550.14 ft<sup>2</sup> of pine BA on 10.38 acres of potentially suitable habitat and 17.52 ft<sup>2</sup> of pine BA on 2.92 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 3,776.85 ft<sup>2</sup> of pine BA on 83.93 acres of potentially suitable habitat and 1,102.28 ft<sup>2</sup> of pine BA on 29.72 acres of future potential habitat. There was no suitable habitat (Table 3-3).

The 2010 MPMG1 (PN 68733) construction limits will remove 4,131.98 ft<sup>2</sup> of pine BA on 93.33 acres (Table 3-6 and Figure 3-5).

The post- project SMS foraging habitat totals were 739.17 ft<sup>2</sup> of pine BA on 18.99 acres of suitable habitat and 7.98 ft<sup>2</sup> of pine BA on 1.33 acre of future potential habitat. There was no potentially suitable habitat (Table 3-2). This cluster will also be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-13). Loblolly pine that is at high risk of decline accounts for 24.54% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 439.20 ft<sup>2</sup> of pine BA on 9.76 acres of potentially suitable habitat and 307.95 ft<sup>2</sup> of pine BA on 10.56 acres of future potential habitat. There was no suitable habitat (Table 3-3). This partition cannot meet RS in the future (Table 3-14).

**FB Cluster A17-06:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 13 cavity trees in various stages of completion and suitability (Appendix G). Construction of the 2011 MPMG2 (PN 65070) will remove all 13 cavity trees, which will result in “take” of the cluster from loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 4,321.54 ft<sup>2</sup> of pine BA on 96.66 acres of suitable habitat and 98.00 ft<sup>2</sup> of pine BA on 24.01 acres of future potential habitat. There was no potentially suitable habitat (Table 3-2).

The pre- project RS foraging habitat totals were 2,661.88 ft<sup>2</sup> of pine BA on 51.19 acres of potentially suitable habitat and 1,757.66 ft<sup>2</sup> of pine BA on 69.48 acres of future potential habitat. There was no suitable habitat (Table 3-3).

The 2010 Multi-purpose Machine Gun Range Complex construction limits will remove 3,307.26 ft<sup>2</sup> of pine BA on 74.70 acres (Table 3-6 and Figure 3-5). The 2011 MPMG2 (PN 65070) will remove 874.85 ft<sup>2</sup> of pine BA on 18.21 acres. The MPMG2 access road will remove 137.60 ft<sup>2</sup> of pine BA on 3.76 acres (Table 3-7 and Figure 3-5).

The post- project SMS foraging habitat totals were 5.47 ft<sup>2</sup> of pine BA on 0.15 acre of suitable habitat and 94.36 ft<sup>2</sup> of pine BA on 23.85 acres of future potential habitat. There was no potentially suitable habitat (Table 3-2). This cluster will also be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-13). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 99.83 ft<sup>2</sup> of pine BA on 24.00 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition cannot meet RS in the future (Table 3-14).

**FB Cluster A17-07:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 8 cavity trees in various stages of completion and suitability (Appendix G). Construction of the 2010 MPMG1 (PN 68733) will remove 7 cavity trees and have impacts within 51 to 200 feet of another (Table 3-4). This will result in “take” of the cluster from loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 3,339.45 ft<sup>2</sup> of pine BA on 74.21 acres of suitable habitat and 960.20 ft<sup>2</sup> of pine BA on 18.70 acres of potentially suitable habitat. There was no future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 3,339.45 ft<sup>2</sup> of pine BA on 74.21 acres of potentially suitable habitat and 960.20 ft<sup>2</sup> of pine BA on 18.70 acres of future potential habitat. There was no suitable habitat (Table 3-3).

The 2010 MPMG1 (PN 68733) will remove 210.89 ft<sup>2</sup> of pine BA on 3.66 acres. The MPMG1 construction limits will remove 3,319.85 ft<sup>2</sup> of pine BA on 72.01 acres (Table 3-6 and Figure 3-5). The 2011 MPMG2 (PN 65070) beaten area will remove 747.31 ft<sup>2</sup> of pine BA on 16.76 acres (Table 3-7 and Figure 3-5).

The post- project SMS foraging habitat totals were 21.60 ft<sup>2</sup> of pine BA on 0.48 acre of suitable habitat. There was no potentially suitable or future potential habitat (Table 3-2). This cluster will also be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-13). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The pre- project RS foraging habitat totals were 21.60 ft<sup>2</sup> of pine BA on 0.48 acre of potentially suitable habitat. There was no suitable or future potential habitat (Table 3-3). This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster A17-08:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 5 cavity trees in various stages of completion and suitability (Appendix G). Construction of the 2011 MPMG2 (PN 65070) will remove all 5 cavity trees, which will result in “take” of the cluster by loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 7,119.92 ft<sup>2</sup> of pine BA on 111.84 acres of suitable habitat and 106.10 ft<sup>2</sup> of pine BA on 18.73 acres of future potential habitat. There was no potentially suitable habitat (Table 3-2).

The pre- project RS foraging habitat totals were 7,119.92 ft<sup>2</sup> of pine BA on 111.84 acres of potentially suitable habitat and 106.10 ft<sup>2</sup> of pine BA on 18.73 acres of future potential habitat (Table 3-3). There was no suitable habitat.

The 2010 MPMG1 (PN 68733) will remove 20.28 ft<sup>2</sup> of pine BA on 0.32 acre. The MPMG1 construction limits will remove 779.43 ft<sup>2</sup> of pine BA on 15.38 acres (Table 3-6 and Figure 3-5). The 2011 MPMG2 (PN 65070) will remove 6,426.31 ft<sup>2</sup> of pine BA on 114.87 acres (Table 3-7 and Figure 3-5).

There was no suitable, potentially suitable or future potential SMS foraging habitat post-project (Table 3-2). This cluster will also be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-13). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

There was no suitable, potentially suitable, or future potential RS foraging habitat post-project (Table 3-3). This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster A17-11R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 10 cavity trees in various stages of completion and suitability (Appendix G). Construction of the 2011 MPMG2 (PN 65070) will remove all 10 cavity trees, which will result in “take” of the cluster from loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 8,139.12 ft<sup>2</sup> of pine BA on 123.32 acres of suitable habitat and 1.93 ft<sup>2</sup> of pine BA on 0.35 acres of future potential habitat. There was no potentially suitable habitat (Table 3-2).

The pre- project RS foraging habitat totals were 8,139.12 ft<sup>2</sup> of pine BA on 123.32 acres of potentially suitable habitat and 1.93 ft<sup>2</sup> of pine BA on 0.35 acre of future potential habitat (Table 3-3). There was no suitable habitat.

The 2011 MPMG2 (PN 65070) will remove 1,306.14 ft<sup>2</sup> of pine BA on 19.79 acres. The MPMG2 construction limits will remove 5,726.77 ft<sup>2</sup> of pine BA on 87.09 acres (Table 3-6 and Figure 3-5).

The post- project SMS foraging habitat totals were 1,108.14 ft<sup>2</sup> of pine BA on 16.79 acres of suitable habitat (Table 3-2). There was no potentially suitable or future potential habitat. This cluster will also be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-13). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,108.14 ft<sup>2</sup> of pine BA on 16.79 acres of potentially suitable habitat (Table 3-3). There was no suitable or future potential habitat. This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster A17-12R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 6 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 977.46 ft<sup>2</sup> of pine BA on 14.81 acres of suitable habitat, 1,593.96 ft<sup>2</sup> of pine BA on 43.67 acres of potentially suitable habitat and 1,486.81 ft<sup>2</sup> of pine BA on 62.53 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 977.46 ft<sup>2</sup> of pine BA on 14.81 acres of potentially suitable habitat and 3,080.77 ft<sup>2</sup> of pine BA on 106.20 acres of future potential habitat. There was no suitable habitat (Table 3-3).

The 2011 MPMG2 (PN 65070) construction limits will remove 998.03 ft<sup>2</sup> of pine BA on 31.22 acres (Table 3-7 and Figure 3-5).

The post- project SMS foraging habitat totals were 663.96 ft<sup>2</sup> of pine BA on 10.06 acres of suitable habitat, 1,593.96 ft<sup>2</sup> of pine BA on 43.67 acres of potentially suitable habitat and

802.28 ft<sup>2</sup> of pine BA on 36.06 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-13). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 663.96 ft<sup>2</sup> of pine BA on 10.06 acres of potentially suitable habitat and 2,396.24 ft<sup>2</sup> of pine BA on 79.73 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster A17-13:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 10 cavity trees in various stages of completion and suitability (Appendix G). Construction of the 2010 MPMG1 (PN 68733) and 2011 MPMG2 (PN 65070) will remove all 10 cavity trees, which will result in “take” of the cluster from loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 4,178.72 ft<sup>2</sup> of pine BA on 80.36 acres of suitable habitat and 1,221.00 ft<sup>2</sup> of pine BA on 24.42 acres of potentially suitable habitat. There was no future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 4,178.72 ft<sup>2</sup> of pine BA on 80.36 acres of potentially suitable habitat and 1,221.00 ft<sup>2</sup> of pine BA on 24.42 acres of future potential habitat. There was no suitable habitat (Table 3-3).

The 2010 MPMG1 (PN 68733) will remove 47.50 ft<sup>2</sup> of pine BA on 0.95 acre. The MPMG1 construction limits will remove 5,082.86 ft<sup>2</sup> of pine BA on 98.65 acres (Table 3-6 and Figure 3-5). The 2011 MPMG2 (PN 65070) will remove 269.36 ft<sup>2</sup> of pine BA on 5.18 acres (Table 3-7 and Figure 3-5).

There was no suitable, potentially suitable or future potential SMS foraging habitat post-project (Table 3-2). This cluster will also be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-13). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

There was no suitable, potentially suitable or future potential RS foraging habitat post-project (Table 3-3). This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster A17-14a:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 8 cavity trees in various stages of completion and suitability (Appendix G). Construction of the 2010 MPMG1 (PN 68733) will remove all 8 cavity trees, which will result in “take” of the cluster from loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 3,542.07 ft<sup>2</sup> of pine BA on 66.47 acres of suitable habitat, 1,130.39 ft<sup>2</sup> of pine BA on 20.18 acres of potentially suitable habitat and 95.52 ft<sup>2</sup> of pine BA on 15.92 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 229.32 ft<sup>2</sup> of pine BA on 4.41 acres of potentially suitable habitat and 4,538.66 ft<sup>2</sup> of pine BA on 98.16 acres of future potential habitat. There was no suitable habitat (Table 3-3).

The 2010 MPMG1 (PN 68733) will remove 2,206.06 ft<sup>2</sup> of pine BA on 38.93 acres. The MPMG1 construction limits will remove 2,537.39 ft<sup>2</sup> of pine BA on 59.55 acres (Table 3-6 and Figure 3-5).

The post- project SMS foraging habitat totals were 24.54 ft<sup>2</sup> of pine BA on 4.09 acres of future potential habitat. There was no suitable or potentially suitable habitat (Table 3-2). This cluster will also be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-13). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 24.54 ft<sup>2</sup> of pine BA on 4.09 acres of future potential habitat. There was no suitable or potentially suitable habitat (Table 3-3). This partition cannot meet the RS in the future (Table 3-14).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster A17-14b:** This cluster is a newly split group and had a PBG in 2008 (Table 3-4). It contained 2 cavity trees in various stages of completion and suitability (Appendix G). Construction of the 2010 MPMG1 (PN 68733) will remove both cavity trees, which will result in “take” of the cluster from loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 4,636.34 ft<sup>2</sup> of pine BA on 82.91 acres of suitable habitat and 153.02 ft<sup>2</sup> of pine BA on 6.01 acres of future potential habitat. There was no potentially suitable habitat (Table 3-2).

The pre- project RS foraging habitat totals were 4,789.36 ft<sup>2</sup> of pine BA on 89.22 acres of future potential habitat. There was no suitable or potentially suitable habitat (Table 3-3).

The 2010 MPMG1 (PN 68733) will remove 536.75 ft<sup>2</sup> of pine BA on 9.50 acres. The MPMG1 construction limits will remove 2,628.99 ft<sup>2</sup> of pine BA on 47.50 acres (Table 3-6 and Figure 3-5).

The post- project SMS foraging habitat totals were 1,474.43 ft<sup>2</sup> of pine BA on 26.55 acres of suitable habitat and 149.18 ft<sup>2</sup> of pine BA on 5.37 acres of future potential habitat. There was no potentially suitable habitat (Table 3-2). This cluster will also be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-13). Loblolly pine that is at high risk of decline accounts for 62.22% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,623.61 ft<sup>2</sup> of pine BA on 31.92 acres of future potential habitat. There was no suitable or potentially suitable habitat (Table 3-3). This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster A20-04:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 8 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 1,059.61 ft<sup>2</sup> of pine BA on 20.97 acres of suitable habitat, 3,424.07 ft<sup>2</sup> of pine BA on 74.16 acres of potentially suitable habitat and 1,545.99 ft<sup>2</sup> of pine BA on 62.22 acres of future potential habitat. There were 155.36 acres of forested habitat within the A20 Impact Area (Table 3-2).

The pre- project RS foraging habitat totals were 272.64 ft<sup>2</sup> of pine BA on 4.26 acres of potentially suitable habitat and 5,757.03 ft<sup>2</sup> of pine BA on 153.09 acres of future potential habitat. There were 155.36 acres of forested habitat within the A20 Impact Area. There was no suitable habitat (Table 3-3).

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 370.52 ft<sup>2</sup> of pine BA on 8.38 acres (Table 3-6 and Figure 3-3)

The post- project SMS foraging habitat totals were 933.28 ft<sup>2</sup> of pine BA on 18.47 acres of suitable habitat, 3,229.54 ft<sup>2</sup> of pine BA on 70.19 acres of potentially suitable habitat and 1,496.33 ft<sup>2</sup> of pine BA on 60.31 acres of future potential habitat. There were 155.36 acres of

forested habitat within the A20 Impact Area (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 15.03% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 272.64 ft<sup>2</sup> of pine BA on 4.26 acres of potentially suitable habitat and 5,386.51 ft<sup>2</sup> of pine BA on 144.71 acres of future potential habitat. There were 155.36 acres of forested habitat within the A20 Impact Area. There was no suitable habitat (Table 3-3). This partition can meet the RS in the future (Table 3-15).

This partition will be taken at the group level due to the decrease in cluster density within 1.25 miles of its cluster center (Tables 3-11, 3-16 and Figure 3-12).

**FB Cluster A20-06:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 8 cavity trees in various stages of completion and suitability (Appendix G). The access road for the Automated Combat Pistol Qualification Course (CPQC) (PN 65079) will impact 1 cavity tree within 50 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 4,441.49 ft<sup>2</sup> of pine BA on 121.55 acres of suitable habitat and 1,402.06 ft<sup>2</sup> of pine BA on 50.97 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 5,843.55 ft<sup>2</sup> of pine BA on 172.52 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2010 Automated CPQC (PN 65079) will remove 25.23 ft<sup>2</sup> of pine BA on 0.94 acre. The CPQC construction limits will remove 392.56 ft<sup>2</sup> of pine BA on 12.22 acres. The CPQC beaten area will remove 305.20 ft<sup>2</sup> of pine BA on 8.72 acres. The CPQC access road will remove 133.14 ft<sup>2</sup> of pine BA on 3.57 acres. The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 134.67 ft<sup>2</sup> of pine BA on 4.04 acres (Table 3-6 and Figure 3-3)

The post- project SMS foraging habitat totals were 3,680.71 ft<sup>2</sup> of pine BA on 101.09 acres of suitable habitat and 1,172.04 ft<sup>2</sup> of pine BA on 41.94 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 18.01% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 4,852.75 ft<sup>2</sup> of pine BA on 143.03 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition may meet the RS in the future (Table 3-15).

**FB Cluster BB03-01R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 8 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 1,017.39 ft<sup>2</sup> of pine BA on 27.38 acres of suitable habitat, 637.49 ft<sup>2</sup> of pine BA on 12.96 acres of potentially suitable habitat and 1,786.60 ft<sup>2</sup> of pine BA on 100.60 acres of future potential habitat (Table 3-2).

The pre- project RS habitat foraging totals were 424.04 ft<sup>2</sup> of pine BA on 8.78 acres of potentially suitable habitat and 4,414.27 ft<sup>2</sup> of pine BA on 176.08 acres of future potential habitat. There was no suitable habitat (Table 3-3).

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 232.35 ft<sup>2</sup> of pine BA on 9.46 acres (Table 3-6 and Figure 3-3).

The post- project SMS foraging habitat totals were 964.79 ft<sup>2</sup> of pine BA on 26.01 acres of suitable habitat, 606.84 ft<sup>2</sup> of pine BA on 12.31 acres of potentially suitable habitat and 1,599.97 ft<sup>2</sup> of pine BA on 92.17 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 9.13% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 386.60 ft<sup>2</sup> of pine BA on 7.99 acres of potentially suitable habitat and 4,181.83 ft<sup>2</sup> of pine BA on 166.42 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition may meet the RS in the future (Table 3-14).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster BB04-01R:** This cluster had a PBG from 2004 to 2008 (Table 3-4). It had 8 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 4,134.91 ft<sup>2</sup> of pine BA on 102.51 acres of suitable habitat, 291.37 ft<sup>2</sup> of pine BA on 4.02 acres of potentially suitable habitat and 809.54 ft<sup>2</sup> of pine BA on 37.28 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 461.13 ft<sup>2</sup> of pine BA on 10.85 acres of suitable habitat, 1,036.17 ft<sup>2</sup> of pine BA on 23.22 acres of potentially suitable habitat and 3,738.52 ft<sup>2</sup> of pine BA on 109.74 acres of future potential habitat (Table 3-3).

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 414.19 ft<sup>2</sup> of pine BA on 11.51 acres (Table 3-6 and Figure 3-3). As a result of project impacts, 337.64 ft<sup>2</sup> of pine BA on 7.34 acres will be non-contiguous and cannot be counted towards the available foraging habitat for the partition.

The post- project SMS foraging habitat totals were 3,454.94 ft<sup>2</sup> of pine BA on 87.69 acres of suitable habitat, 291.37 ft<sup>2</sup> of pine BA on 4.02 acres of potentially suitable habitat and 737.68 ft<sup>2</sup> of pine BA on 33.25 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 27.57% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 461.13 ft<sup>2</sup> of pine BA on 10.85 acres of suitable habitat, 1,025.50 ft<sup>2</sup> of pine BA on 22.95 acres of potentially suitable habitat and 2,997.36 ft<sup>2</sup> of pine BA on 91.16 acres of future potential habitat (Table 3-3). This partition may meet the RS in the future (Table 3-15).

**FB Cluster BB05-01R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 5 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 3,424.61 ft<sup>2</sup> of pine BA on 87.25 acres of suitable habitat, 3,976.85 ft<sup>2</sup> of pine BA on 101.41 acres of potentially suitable habitat and 1,308.38 ft<sup>2</sup> of pine BA on 55.34 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 8,709.84 ft<sup>2</sup> of pine BA on 244.00 acres of future potential habitat. There was no suitable or potentially suitable habitat (Table 3-3).

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 616.01 ft<sup>2</sup> of pine BA on 13.74 acres (Table 3-6 and Figure 3-3).

The post- project SMS foraging habitat totals were 2,844.09 ft<sup>2</sup> of pine BA on 74.63 acres of suitable habitat, 3,952.36 ft<sup>2</sup> of pine BA on 100.82 acres of potentially suitable habitat and 1,297.38 ft<sup>2</sup> of pine BA on 54.81 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 25.24% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 8,093.83 ft<sup>2</sup> of pine BA on 230.26 of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster C01-02:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and had 13 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 19.95 ft<sup>2</sup> of pine BA on 0.42 acre of suitable habitat, 6,711.82 ft<sup>2</sup> of pine BA on 167.28 acres of potentially suitable habitat and 0.00 ft<sup>2</sup> of pine BA on 18.35 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 15.45 ft<sup>2</sup> of pine BA on 0.30 acre of suitable habitat, 2,915.92 ft<sup>2</sup> of pine BA on 64.04 acres of potentially suitable habitat and 3,800.40 ft<sup>2</sup> of pine BA on 121.71 acres of future potential habitat (Table 3-3).

The 2009 Alternate 19D/K OSUT Training Area Roads (PN 69741) will remove 78.81 ft<sup>2</sup> of pine BA on 2.34 acres (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 19.95 ft<sup>2</sup> of pine BA on 0.42 acre of suitable habitat, 6,633.01 ft<sup>2</sup> of pine BA on 164.94 acres of potentially suitable habitat and 0.00 ft<sup>2</sup> of pine BA on 18.35 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 28.76% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 15.45 ft<sup>2</sup> of pine BA on 0.30 acre of suitable habitat, 2,915.92 ft<sup>2</sup> of pine BA on 64.04 acres of potentially suitable habitat and 3,721.59 ft<sup>2</sup> of pine BA on 119.37 acres of future potential habitat (Table 3-3). This partition can meet the RS in the future (Table 3-15).

**FB Cluster C01-03:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and had 12 cavity trees in various stages of completion and suitability (Appendix G). The Repair of Existing Area Training Roads (Phase I) (PN 65557) will have impacts within 51 to 200 feet of 1 cavity tree (Table 3-9).

The pre- project SMS foraging habitat totals were 982.80 ft<sup>2</sup> of pine BA on 18.97 acres of suitable habitat, 2,841.78 ft<sup>2</sup> of pine BA on 71.81 acres of potentially suitable habitat and 676.98 ft<sup>2</sup> of pine BA on 41.32 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 704.55 ft<sup>2</sup> of pine BA on 11.55 acres of suitable habitat, 1,557.11 ft<sup>2</sup> of pine BA on 35.46 acres of potentially suitable habitat and 2,239.90 ft<sup>2</sup> of pine BA on 85.09 acres of future potential habitat (Table 3-3).

The 2009 Infrastructure Support Project (PN 67457) will remove 139.74 ft<sup>2</sup> of pine BA on 3.04 acres (Table 3-5 and Figure 3-3). The 2010 Repair Existing Training Area Roads Project (PN 65557) would remove 184.65 ft<sup>2</sup> of pine BA on 5.39 acres (Table 3-6 and Figure 3-3).

The post- project SMS foraging habitat totals were 912.65 ft<sup>2</sup> of pine BA on 17.82 acres of suitable habitat, 2,680.68 ft<sup>2</sup> of pine BA on 68.00 acres of potentially suitable habitat and 583.84 ft<sup>2</sup> of pine BA on 37.85 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 20.85% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 634.40 ft<sup>2</sup> of pine BA on 10.40 acres of suitable habitat, 1,424.13 ft<sup>2</sup> of pine BA on 32.43 acres of potentially suitable habitat and 2,118.64 ft<sup>2</sup> of pine BA on 80.84 acres of future potential habitat (Table 3-3). This partition may meet the RS in the future (Table 3-15).

**FB Cluster C01-06:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 8 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 1,212.32 ft<sup>2</sup> of pine BA on 27.04 acres of suitable habitat, 3,105.49 ft<sup>2</sup> of pine BA on 75.53 acres of potentially suitable habitat and 75.90 ft<sup>2</sup> of pine BA on 19.38 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 1,212.32 ft<sup>2</sup> of pine BA on 27.04 acres of suitable habitat, 2,024.01 ft<sup>2</sup> of pine BA on 47.07 acres of potentially suitable habitat and 1,157.38 ft<sup>2</sup> of pine BA on 47.84 acres of future potential habitat (Table 3-3).

The 2009 Infrastructure Support Project (PN 67457) will remove 147.84 ft<sup>2</sup> of pine BA on 3.53 acres (Table 3-5 and Figure 3-3). The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 265.93 ft<sup>2</sup> of pine BA on 6.98 acres (Table 3-6 and Figure 3-3).

The post- project SMS foraging habitat totals were 1,212.32 ft<sup>2</sup> of pine BA on 27.04 acres of suitable habitat, 2,722.22 ft<sup>2</sup> of pine BA on 66.09 acres of potentially suitable habitat and 45.40 ft<sup>2</sup> of pine BA on 18.31 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 37.20% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,212.32 ft<sup>2</sup> of pine BA on 27.04 acres of suitable habitat, 1,812.88 ft<sup>2</sup> of pine BA on 42.16 acres of potentially suitable habitat and 954.74 ft<sup>2</sup> of pine BA on 42.24 acres of future potential habitat (Table 3-3). This partition cannot meet the RS in the future (Table 3-15).

**FB Cluster C02-02:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 9 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 2,079.29 ft<sup>2</sup> of pine BA on 54.25 acres of suitable habitat, 6,171.56 ft<sup>2</sup> of pine BA on 158.04 acres of potentially suitable habitat and 1,000.93 ft<sup>2</sup> of pine BA on 80.72 acres of future potential habitat (Table 3-2).

The pre- project RS habitat totals were 366.80 ft<sup>2</sup> of pine BA on 9.17 acres of suitable habitat and 8,884.98 ft<sup>2</sup> of pine BA on 283.84 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Alternate 19 D/K OSUT Training Area (PN 69741) will remove 618.33 ft<sup>2</sup> of pine BA on 27.82 acres (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 1,488.01 ft<sup>2</sup> of pine BA on 37.69 acres of suitable habitat, 6,171.56 ft<sup>2</sup> of pine BA on 158.04 acres of potentially suitable habitat and 973.88 ft<sup>2</sup> of pine BA on 69.46 acres of future potential habitat (Table 3-2). This cluster will not

be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 7.08% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 366.80 ft<sup>2</sup> of pine BA on 9.17 acres of suitable habitat and 8,266.65 ft<sup>2</sup> of pine BA on 256.02 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster D05-02R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 5 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 4,943.82 ft<sup>2</sup> of pine BA on 125.55 acres of suitable habitat and 853.42 ft<sup>2</sup> of pine BA on 38.87 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 5,797.24 ft<sup>2</sup> of pine BA on 164.42 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2009 Southern Training Area Infrastructure – Maneuver Area (PN 69743) will remove 2,118.25 ft<sup>2</sup> of pine BA on 61.38 acres (Table 3-5 and Figure 3-8).

The post- project SMS foraging habitat totals were 3,416.93 ft<sup>2</sup> of pine BA on 91.05 acres of suitable habitat and 262.06 ft<sup>2</sup> of pine BA on 11.99 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-11). Loblolly pine that is at high risk of decline accounts for 8.16% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 3,678.99 ft<sup>2</sup> of pine BA on 103.04 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-15).

**FB Cluster D05-04R:** This cluster had a PBG from 2005 to 2008 (Table 3-4) and contained 4 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 9,780.13 ft<sup>2</sup> of pine BA on 243.87 acres of suitable habitat and 502.91 ft<sup>2</sup> of pine BA on 46.85 acres of future potential habitat. There was no potentially suitable habitat (Table 3-2).

The pre- project RS foraging habitat totals were 10,283.04 ft<sup>2</sup> of pine BA on 290.72 acres of future potential habitat. There was no suitable or potentially suitable habitat (Table 3-3).

The 2009 Southern Training Area Infrastructure – Maneuver Area (PN 69743) will remove 4,527.35 ft<sup>2</sup> of pine BA on 127.55 acres. The 2009 Southern Training Area Infrastructure – Upgrade Paved Roads and Tank Trails (PN 69743) will remove 385.48 ft<sup>2</sup> of pine BA on 9.59 acres (Table 3-5 and Figure 3-8).

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 496.79 ft<sup>2</sup> of pine BA on 13.49 acres (Table 3-6 and Figure 3-8).

The post- project SMS foraging habitat totals were 4,747.26 ft<sup>2</sup> of pine BA on 122.15 acres of suitable habitat and 126.15 ft<sup>2</sup> of pine BA on 17.94 acres of future potential habitat. There was no potentially suitable habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-11). Loblolly pine that is at high risk of decline accounts for 49.81% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS habitat totals were 4,873.41 ft<sup>2</sup> of pine BA on 140.09 acres of future potential habitat. There was no suitable or potentially suitable habitat (Table 3-3). This partition may meet the RS in the future (Table 3-15).

**FB Cluster D06-01R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and had 7 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 1,955.13 ft<sup>2</sup> of pine BA on 63.12 acres of suitable habitat and 1,490.97 ft<sup>2</sup> of pine BA on 92.27 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 3,446.10 ft<sup>2</sup> of pine BA on 155.39 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2009 Southern Training Area Infrastructure – Maneuver Area (PN 69743) will remove 399.61 ft<sup>2</sup> of pine BA on 30.17 acres. The 2009 Southern Training Area Infrastructure –

Upgrade Paved Roads and Tank Trails (PN 69743) will remove 93.63 ft<sup>2</sup> of pine BA on 9.25 acres (Table 3-5 and Figure 3-8). As a result of project impacts, 135.64 ft<sup>2</sup> of pine BA on 13.94 acres will be non-contiguous and cannot be counted towards the available foraging habitat for the partition (Table 3-2).

The post- project SMS foraging habitat totals were 1,954.18 ft<sup>2</sup> of pine BA on 63.09 acres of suitable habitat and 863.04 ft<sup>2</sup> of pine BA on 38.94 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-11). Loblolly pine that is at high risk of decline accounts for 12.63% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 2,817.22 ft<sup>2</sup> of pine BA on 102.03 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition cannot meet RS in the future (Table 3-14).

**FB Cluster D08-01R:** This cluster had a PBG in 2004, 2007 and 2008; there was a solitary male in 2005 and 2006 (Table 3-4). There were 7 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 3,154.70 ft<sup>2</sup> of pine BA on 86.01 acres of suitable habitat and 1,317.27 ft<sup>2</sup> of pine BA on 131.25 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 5,355.42 ft<sup>2</sup> of pine BA on 242.89 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

Under the SMS, the 2009 Southern Training Area Infrastructure (PN 69743) will remove 2,671.65 ft<sup>2</sup> of pine BA on 85.94 acres (Table 3-5 and Figure 3-8).

Under the RSG, the 2009 Southern Training Area Infrastructure (PN 69743) will remove 3,554.77 ft<sup>2</sup> of pine BA on 111.56 acres (Table 3-5 and Figure 3-8).

The post- project SMS foraging habitat totals were 1,229.88 ft<sup>2</sup> of pine BA on 39.61 acres of suitable habitat and 570.44 ft<sup>2</sup> of pine BA on 91.71 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-11). Loblolly pine that is at high

risk of decline accounts for 54.76% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,800.65 ft<sup>2</sup> of pine BA on 131.33 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition may meet the RS in the future (Table 3-14).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster D10-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 11 cavity trees in various stages of completion and suitability (Appendix G). The construction of the Southern Training Area Infrastructure and Upgraded Tank Trails (PN 69743) will impact 2 cavity trees within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 1,605.05 ft<sup>2</sup> of pine BA on 48.18 acres of suitable habitat and 929.93 ft<sup>2</sup> of pine BA on 105.75 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 1,333.53 ft<sup>2</sup> of pine BA on 40.41 acres of suitable habitat and 1,891.77 ft<sup>2</sup> of pine BA on 132.84 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

Under the SMS, the 2009 Southern Training Area Infrastructure – Maneuver Area (PN 69743) will remove 29.05 ft<sup>2</sup> of pine BA on 8.59 acres. The 2009 Southern Training Area Infrastructure – Upgrade Paved Roads and Tank Trails (PN 69743) will remove 132.04 ft<sup>2</sup> of pine BA on 9.30 acres (Table 3-5 and Figure 3-8). As a result of project impacts, 115.13 ft<sup>2</sup> of pine BA on 4.97 acres will be non-contiguous and cannot be counted towards the available foraging habitat for the partition (Table 3-2).

Under the RSG, the 2009 Southern Training Area Infrastructure – Maneuver Area (PN 69743) would remove 445.63 ft<sup>2</sup> of pine BA on 20.19 acres. The 2009 Southern Training Area Infrastructure – Upgrade Paved Roads and Tank Trails (PN 69743) would remove 312.24 ft<sup>2</sup> of pine BA on 14.11 acres (Table 3-3 and Figure 3-8). As a result of project impacts, 127.45 ft<sup>2</sup> of pine BA on 5.26 acres would be non-contiguous and cannot be counted towards the available foraging habitat for the partition (Table 3-3).

The post- project SMS foraging habitat totals were 1,517.30 ft<sup>2</sup> of pine BA on 45.68 acres of suitable habitat and 741.46 ft<sup>2</sup> of pine BA on 85.39 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-11). Loblolly pine that is at high risk of decline accounts for 48.82% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,274.13 ft<sup>2</sup> of pine BA on 38.61 acres of suitable habitat and 1,065.85 ft<sup>2</sup> of pine BA on 95.08 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition may meet RS in the future (Table 3-14).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster D11-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 8 cavity trees in various stages of completion and suitability (Appendix G). The construction of the Southern Training Area Infrastructure and Upgraded Tank Trails (PN 69743) will impact all 8 cavity trees within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 3,502.41 ft<sup>2</sup> of pine BA on 94.01 acres of suitable habitat and 104.47 ft<sup>2</sup> of pine BA on 49.69 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 3,174.20 ft<sup>2</sup> of pine BA on 83.36 acres of suitable habitat and 432.68 ft<sup>2</sup> of pine BA on 60.34 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Southern Training Area Infrastructure – Maneuver Area (PN 69743) will remove 1,795.76 ft<sup>2</sup> of pine BA on 78.96 acres. The 2009 Southern Training Area Infrastructure – Upgrade Paved Roads and Tank Trails (PN 69743) will remove 152.47 ft<sup>2</sup> of pine BA on 5.53 acres (Table 3-5 and Figure 3-8).

The post- project SMS foraging habitat totals were 1,651.38 ft<sup>2</sup> of pine BA on 44.15 acres of suitable habitat and 7.27 ft<sup>2</sup> of pine BA on 15.06 acres of future potential habitat. There was no potentially suitable habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-11). Loblolly pine that is at high

risk of decline accounts for 29.06% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,441.21 ft<sup>2</sup> of pine BA on 37.37 acres of suitable habitat and 217.44 ft<sup>2</sup> of pine BA on 21.84 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

This cluster is currently monitored as a minimization effort for the DMPRC (FBCB, unpub. data). In addition, this cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster D11-02:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 7 cavity trees in various stages of completion and suitability (Appendix G). The construction of the Southern Training Area Infrastructure (PN 69743) will remove all 7 cavity trees which will result in “take” of the cluster by loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 3,871.19 ft<sup>2</sup> of pine BA on 104.88 acres of suitable habitat and 1,277.31 ft<sup>2</sup> of pine BA on 54.91 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 1,762.51 ft<sup>2</sup> of pine BA on 45.69 acres of suitable habitat and 3,385.99 ft<sup>2</sup> of pine BA on 114.10 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Southern Training Area Infrastructure – Maneuver Area (PN 69743) will remove 4,032.61 ft<sup>2</sup> of pine BA on 125.66 acres. The 2009 Southern Training Area Infrastructure – Upgrade Paved Roads and Tank Trails (PN 69743) will remove 429.55 ft<sup>2</sup> of pine BA on 13.79 acres (Table 3-5 and Figure 3-8). As a result of project impacts, 572.20 ft<sup>2</sup> of pine BA on 15.94 acres will be non-contiguous and cannot be counted towards the available foraging habitat for the partition (Table 3-2).

The post- project SMS foraging habitat totals were 5.77 ft<sup>2</sup> of pine BA on 0.15 acre of suitable habitat and 108.37 ft<sup>2</sup> of pine BA on 4.25 acres of future potential habitat (Table 3-2, 3-11 and 3-8). There was no potentially suitable habitat. This cluster will also be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-11). Loblolly

pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 5.77 ft<sup>2</sup> of pine BA on 0.15 acre of suitable habitat and 108.37 ft<sup>2</sup> of pine BA on 4.25 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

This cluster is currently monitored as a minimization effort for the DMPRC (FBCB, unpub. data). In addition, this cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster D12-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 9 cavity trees in various stages of completion and suitability (Appendix G). The construction of the Southern Training Area Infrastructure and Upgraded Tank Trails (PN 69743) will impact 1 cavity tree within 50 feet and 2 cavity trees within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 4,975.59 ft<sup>2</sup> of pine BA on 106.88 acres of suitable habitat and 2,011.29 ft<sup>2</sup> of pine BA on 111.76 acres of future potential habitat. There was no potentially suitable habitat (Table 3-2).

The pre- project RS foraging habitat totals were 2,761.74 ft<sup>2</sup> of pine BA on 58.36 acres of suitable habitat and 4,225.14 ft<sup>2</sup> of pine BA on 160.28 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Southern Training Area Infrastructure – Maneuver Area (PN 69743) will remove 210.12 ft<sup>2</sup> of pine BA on 6.74 acres. The 2009 Southern Training Area Infrastructure – Upgrade Paved Roads and Tank Trails (PN 69743) will remove 602.09 ft<sup>2</sup> of pine BA on 20.19 acres (Table 3-5 and Figure 3-8).

The post- project SMS foraging habitat totals were 4,363.64 ft<sup>2</sup> of pine BA on 93.01 acres of suitable habitat and 1,811.00 ft<sup>2</sup> of pine BA on 98.70 acres of future potential habitat (Table 3-2, 3-11 and Figure 3-11). There was no potentially suitable habitat. This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-11). Loblolly pine that is at high risk of decline accounts for 3.13% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 2,535.49 ft<sup>2</sup> of pine BA on 53.88 acres of suitable habitat and 3,639.15 ft<sup>2</sup> of pine BA on 137.83 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster D16-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and had 7 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 1,494.10 ft<sup>2</sup> of pine BA on 38.63 acres of suitable habitat, 620.09 ft<sup>2</sup> of pine BA on 18.51 acres of potentially suitable habitat and 2,506.48 ft<sup>2</sup> of pine BA on 167.49 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 838.00 ft<sup>2</sup> of pine BA on 16.76 acres of suitable habitat and 3,782.67 ft<sup>2</sup> of pine BA on 207.87 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Southern Training Area Infrastructure - Maneuver Area (PN 69743) will remove 916.97 ft<sup>2</sup> of pine BA on 47.90 acres (Table 3-5 and Figure 3-8).

The post- project SMS foraging habitat totals were 1,494.10 ft<sup>2</sup> of pine BA on 38.63 acres of suitable habitat, 0.34 ft<sup>2</sup> of pine BA on 0.01 acre of potentially suitable habitat and 2,209.26 ft<sup>2</sup> of pine BA on 138.09 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-11). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 838.00 ft<sup>2</sup> of pine BA on 16.76 acres of suitable habitat and 2,865.70 ft<sup>2</sup> of pine BA on 159.97 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition can meet the RS in the future (Table 3-14).

This cluster is currently monitored as a minimization effort for the DMPRC (FBCB, unpub. data).

**FB Cluster D16-02:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 7 cavity trees in various stages of completion and suitability (Appendix G). The construction of

the Southern Training Area Infrastructure (PN 69743) will impact 1 cavity tree within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 575.61 ft<sup>2</sup> of pine BA on 16.55 acres of suitable habitat and 3,423.84 ft<sup>2</sup> of pine BA on 209.69 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 3,999.45 ft<sup>2</sup> of pine BA on 226.24 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2009 Southern Training Area Infrastructure – Maneuver Area (PN 69743) will remove 2,374.25 ft<sup>2</sup> of pine BA on 138.45 acres. The 2009 Southern Training Area Infrastructure – Upgrade Paved Roads and Tank Trails (PN 69743) will remove 773.78 ft<sup>2</sup> of pine BA on 36.92 acres. The 2009 Southern Training Area Infrastructure – Urban Training Site (PN 69743) will remove 4.92 ft<sup>2</sup> of pine BA on 0.24 acre (Table 3-5 and Figure 3-8). As a result of project impacts, 497.47 ft<sup>2</sup> of pine BA on 24.03 acres will be non-contiguous and cannot be counted towards the available foraging habitat for the partition (Table 3-2).

The post- project SMS foraging habitat totals were 349.03 ft<sup>2</sup> of pine BA on 26.60 acres of future potential habitat (Table 3-2). There was no suitable or potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-11). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 349.03 ft<sup>2</sup> of pine BA on 26.60 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster D17-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 10 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be taken or impacted by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 4,844.96 ft<sup>2</sup> of pine BA on 134.03 acres of suitable habitat, 320.86 ft<sup>2</sup> of pine BA on 10.52 acres of potentially suitable habitat and 1,655.40 ft<sup>2</sup> of pine BA on 160.44 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 1,500.32 ft<sup>2</sup> of pine BA on 34.49 acres of suitable habitat and 5,320.90 ft<sup>2</sup> of pine BA on 270.50 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Southern Training Area Infrastructure Urban Training Site (PN 69743) will remove 161.16 ft<sup>2</sup> of pine BA on 6.74 acres. The 2009 Southern Training Area Infrastructure – Maneuver Area (PN 69743) will remove 2,196.00 ft<sup>2</sup> of pine BA on 71.34 acres. The 2009 Southern Training Area Infrastructure – Upgrade Paved Roads and Tank Trails (PN 69743) will remove 522.61 ft<sup>2</sup> of pine BA on 16.19 acres (Table 3-5 and Figure 3-8). As a result of project impacts, 578.42 ft<sup>2</sup> of pine BA on 24.28 acres will be non-contiguous and cannot be counted towards the available foraging habitat for the partition (Table 3-2).

The post- project SMS foraging habitat totals were 2,580.79 ft<sup>2</sup> of pine BA on 74.30 acres of suitable habitat, 320.86 ft<sup>2</sup> of pine BA on 10.52 acres of potentially suitable habitat and 461.37 ft<sup>2</sup> of pine BA on 101.62 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-11). Loblolly pine that is at high risk of decline accounts for 83.98% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 609.00 ft<sup>2</sup> of pine BA on 14.00 acres of suitable habitat and 2,754.02 ft<sup>2</sup> of pine BA on 172.44 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition can meet the RS in the future (Table 3-14).

**FB Cluster D17-03:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 6 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 4,242.34 ft<sup>2</sup> of pine BA on 114.09 acres of suitable habitat and 1,782.06 ft<sup>2</sup> of pine BA on 89.62 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 598.00 ft<sup>2</sup> of pine BA on 13.00 acres of suitable habitat and 5,426.40 ft<sup>2</sup> of pine BA on 190.71 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Southern Training Area Infrastructure – Maneuver Area (PN 69743) will remove 2,959.41 ft<sup>2</sup> of pine BA on 99.69 acres. The 2009 Southern Training Area Infrastructure – Upgrade Paved Roads and Tank Trails (PN 69743) will remove 409.51 ft<sup>2</sup> of pine BA on 15.02 acres (Table 3-5 and Figure 3-8).

The post- project SMS foraging habitat totals were 1,920.96 ft<sup>2</sup> of pine BA on 51.79 acres of suitable habitat and 734.52 ft<sup>2</sup> of pine BA on 37.21 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-11). Loblolly pine that is at high risk of decline accounts for 27.71% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 8.74 ft<sup>2</sup> of pine BA on 0.19 acre of suitable habitat and 2,646.74 ft<sup>2</sup> of pine BA on 88.81 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster D17-04R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 11 cavity trees in various stages of completion and suitability (Appendix G). The construction of the Southern Training Area Infrastructure (PN 69743) will impact 4 cavity trees within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 3,545.37 ft<sup>2</sup> of pine BA on 90.79 acres of suitable habitat and 1,865.55 ft<sup>2</sup> of pine BA on 101.80 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 1,485.25 ft<sup>2</sup> of pine BA on 34.55 acres of suitable habitat and 3,925.67 ft<sup>2</sup> of pine BA on 158.04 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Southern Training Area Infrastructure – Maneuver Area (PN 69743) will remove 2,347.45 ft<sup>2</sup> of pine BA on 79.71 acres. The 2009 Southern Training Area Infrastructure

– Upgrade Paved Roads and Tank Trails (PN 69743) will remove 557.94 ft<sup>2</sup> of pine BA on 17.97 acres (Table 3-5 and Figure 3-8).

The post- project SMS foraging habitat totals were 1,927.51 ft<sup>2</sup> of pine BA on 47.56 acres of suitable habitat and 578.02 ft<sup>2</sup> of pine BA on 47.35 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-11). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,060.93 ft<sup>2</sup> of pine BA on 24.93 acres of suitable habitat and 1,444.60 ft<sup>2</sup> of pine BA on 69.98 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster E02-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 7 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 2,821.35 ft<sup>2</sup> of pine BA on 89.39 acres of suitable habitat, 576.34 ft<sup>2</sup> of pine BA on 19.08 acres of potentially suitable habitat and 395.65 ft<sup>2</sup> of pine BA on 73.24 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 44.62 ft<sup>2</sup> of pine BA on 0.92 acre of suitable habitat and 3,748.72 ft<sup>2</sup> of pine BA on 180.78 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 71.41 ft<sup>2</sup> of pine BA on 2.93 acres (Table 3-6 and Figure 3-8).

The post- project SMS foraging habitat totals were 2,781.98 ft<sup>2</sup> of pine BA on 88.12 acres of suitable habitat, 554.11 ft<sup>2</sup> of pine BA on 18.38 acres of potentially suitable habitat and 385.84 ft<sup>2</sup> of pine BA on 72.27 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-11). Loblolly pine that is at high risk of decline accounts for 6.54% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 44.62 ft<sup>2</sup> of pine BA on 0.92 acre of suitable habitat and 3,677.31 ft<sup>2</sup> of pine BA on 177.85 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

This cluster is currently monitored as a minimization effort for the DMPRC (FBCB, unpub. data).

**FB Cluster E04-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 8 cavity trees in various stages of completion and suitability (Appendix G). Upgraded tank trails within the Southern Training Area Infrastructure (PN 69743) will impact 3 cavity trees within 51 to 200 feet, 2 within 50 feet and remove 3 inactive cavity trees. The Southern Training Area Infrastructure – Maneuver Area (PN 69743) will impact 1 cavity tree within 51 to 200 feet and 2 cavity trees within 50 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 4,509.48 ft<sup>2</sup> of pine BA on 115.00 acres of suitable habitat and 1,259.72 ft<sup>2</sup> of pine BA on 52.36 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 406.95 ft<sup>2</sup> of pine BA on 9.65 acres of suitable habitat, 575.70 ft<sup>2</sup> of pine BA on 6.06 acres of potentially suitable habitat and 4,786.55 ft<sup>2</sup> of pine BA on 151.65 acres of future potential habitat (Table 3-3).

The 2009 Southern Training Area Infrastructure – Maneuver Area (PN 69743) will remove 1,577.90 ft<sup>2</sup> of pine BA on 44.07 acres. The 2009 Southern Training Area Infrastructure – Upgrade Paved Roads and Tank Trails (PN 69743) will remove 725.67 ft<sup>2</sup> of pine BA on 15.73 acres (Table 3-5 and Figure 3-8).

The post- project SMS foraging habitat totals were 2,555.76 ft<sup>2</sup> of pine BA on 65.73 acres of suitable habitat and 909.87 ft<sup>2</sup> of pine BA on 41.83 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-11). Loblolly pine that is at high risk of decline accounts for 24.13% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 245.25 ft<sup>2</sup> of pine BA on 5.45 acres of suitable habitat, 282.15 ft<sup>2</sup> of pine BA on 2.97 acres of potentially suitable habitat and 2,867.01

ft<sup>2</sup> of pine BA on 99.14 acres of future potential habitat (Table 3-3). This partition cannot meet the RS in the future (Table 3-14).

This cluster is currently monitored as a minimization effort for the DMPC (FBCB, unpub. data).

**FB Cluster F02-01R:** This cluster was inactive in 2004, had a solitary male in 2005 and a PBG from 2006 to 2008 (Table 3-4). It had 5 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 2,336.44 ft<sup>2</sup> of pine BA on 53.68 acres of suitable habitat and 2,646.83 ft<sup>2</sup> of pine BA on 136.76 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 2,130.20 ft<sup>2</sup> of pine BA on 48.58 acres of suitable habitat and 2,853.07 ft<sup>2</sup> of pine BA on 141.86 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Southern Training Area Infrastructure – Maneuver Area (PN 69743) will remove 2,784.30 ft<sup>2</sup> of pine BA on 103.00 acres. The 2009 Southern Training Area Infrastructure – Upgrade Paved Roads and Tank Trails (PN 69743) will remove 460.56 ft<sup>2</sup> of pine BA on 15.78 acres (Table 3-5 and Figure 3-8). The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 369.57 ft<sup>2</sup> of pine BA on 10.90 acres (Table 3-6 and Figure 3-8).

The post- project SMS foraging habitat totals were 528.06 ft<sup>2</sup> of pine BA on 11.82 acres of suitable habitat and 840.78 ft<sup>2</sup> of pine BA on 48.94 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-11). Loblolly pine that is at high risk of decline accounts for 7.36% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 528.06 ft<sup>2</sup> of pine BA on 11.82 acres of suitable habitat and 840.78 ft<sup>2</sup> of pine BA on 48.94 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster HCC-08R:** This cluster was inactive in 2004, had a solitary male from 2005 to 2007 and had a PBG in 2008 (Table 3-4). It contained 6 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 1,556.16 ft<sup>2</sup> of pine BA on 46.77 acres of suitable habitat, 1,573.41 ft<sup>2</sup> of pine BA on 50.04 acres of potentially suitable habitat and 2,398.11 ft<sup>2</sup> of pine BA on 92.09 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 117.82 ft<sup>2</sup> of pine BA on 2.74 acres of suitable habitat and 5,409.86 ft<sup>2</sup> of pine BA on 186.16 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Infrastructure Support Project (PN 67457) will remove 26.23 ft<sup>2</sup> of pine BA on 0.61 acre (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 1,529.93 ft<sup>2</sup> of pine BA on 46.16 acres of suitable habitat, 1,573.41 ft<sup>2</sup> of pine BA on 50.04 acres of potentially suitable habitat and 2,398.11 ft<sup>2</sup> of pine BA on 92.09 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 21.90% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 91.59 ft<sup>2</sup> of pine BA on 2.13 acres of suitable habitat and 5,409.86 ft<sup>2</sup> of pine BA on 186.16 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster HCC-10R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 10 cavity trees in various stages of completion and suitability (Appendix G). Construction of the Good Hope Range Access Road (PN 69358) will impact 2 cavity trees within 50 feet, 5 trees within 51 to 200 feet and will remove 1 active cavity tree and 1 active start (Table 3-9). These impacts and removals will likely result in “take” of the cluster by harassment (Table 3-11).

The pre- project SMS foraging habitat totals were 4,302.80 ft<sup>2</sup> of pine BA on 122.28 acres of suitable habitat, 457.11 ft<sup>2</sup> of pine BA on 11.74 acres of potentially suitable habitat and 204.00 ft<sup>2</sup> of pine BA on 11.07 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 347.01 ft<sup>2</sup> of pine BA on 8.07 acres of potentially suitable habitat and 4,616.90 ft<sup>2</sup> of pine BA on 137.02 acres of future potential habitat (Table 3-3). There was no suitable habitat.

The 2009 Good Hope MTA Range Access Road (PN 69358) will remove 493.44 ft<sup>2</sup> of pine BA on 13.64 acres (Table 3-5 and Figure 3-3). The 2009 Infrastructure Support Project (PN 67457) will remove 87.90 ft<sup>2</sup> of pine BA on 2.78 acres (Table 3-5 and Figure 3-3). The 2010 Existing Training Area Road Repairs Project (PN 65557) will remove 55.29 ft<sup>2</sup> of pine BA on 1.59 acre (Table 3-6 and Figure 3-3). The 2012 Harmony Church Recreation Center (PN 65246) will remove 33.60 ft<sup>2</sup> of pine BA on 1.12 acre (Table 3-8 and Figure 3-3). As a result of project impacts, 75.09 ft<sup>2</sup> of pine BA on 2.03 acres will be non-contiguous and cannot be counted towards the available foraging habitat for the partition.

The post- project SMS foraging habitat totals were 3,619.92 ft<sup>2</sup> of pine BA on 103.11 acres of suitable habitat, 398.57 ft<sup>2</sup> of pine BA on 10.04 acres of potentially suitable habitat and 200.10 ft<sup>2</sup> of pine BA on 10.78 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 24.06% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 322.07 ft<sup>2</sup> of pine BA on 7.49 acres of potentially suitable habitat and 3,896.52 ft<sup>2</sup> of pine BA on 116.44 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition may meet the RS in the future (Table 3-15).

**FB Cluster HCC-11R:** This cluster was captured by A07-01 in 2004 and had a PBG from 2005 to 2008 (Table 3-4). It had 8 cavity trees in various stages of completion and suitability (Appendix G). The Repair of Existing Training Roads (Phase I) (PN 65557) will have impacts within 51 to 200 feet of 1 cavity tree (Table 3-9).

The pre- project SMS foraging habitat totals were 385.31 ft<sup>2</sup> of pine BA on 11.73 acres of suitable habitat, 56.00 ft<sup>2</sup> of pine BA on 1.05 acre of potentially suitable habitat and 4,659.29 ft<sup>2</sup> of pine BA on 196.06 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 68.73 ft<sup>2</sup> of pine BA on 1.74 acres of potentially suitable habitat and 5,031.87 ft<sup>2</sup> of pine BA on 207.10 acres of future potential habitat (Table 3-3). There was no suitable habitat.

The 2010 Existing Training Area Road Repairs Project (PN 65557) will remove 370.62 ft<sup>2</sup> of pine BA on 14.09 acres (Table 3-6 and Figure 3-8). As a result of project impacts, 47.11 ft<sup>2</sup> of pine BA on 1.23 acre will be non-contiguous and cannot be counted towards the available foraging habitat for the partition.

The post- project SMS foraging habitat totals were 301.46 ft<sup>2</sup> of pine BA on 9.57 acres of suitable habitat, 56.00 ft<sup>2</sup> of pine BA on 1.05 acre of potentially suitable habitat, and 4,325.41 ft<sup>2</sup> of pine BA on 182.90 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 9.60% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 4,682.87 ft<sup>2</sup> of pine BA on 193.52 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition can meet the RS in the future (Table 3-14).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster J01-02R:** This cluster had a solitary male in 2004 and a PBG from 2005 to 2008 (Table 3-4). There were 6 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 2,215.31 ft<sup>2</sup> of pine BA on 50.92 acres of suitable habitat and 1,213.96 ft<sup>2</sup> of pine BA on 147.86 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 470.25 ft<sup>2</sup> of pine BA on 10.45 acres of suitable habitat, 289.60 ft<sup>2</sup> of pine BA on 3.62 acres of potentially suitable habitat and 2,669.42 ft<sup>2</sup> of pine BA on 184.71 acres of future potential habitat (Table 3-3).

The 2009 Construction of Paved Training Area Roads Project (PN 65554) will remove 229.97 ft<sup>2</sup> of pine BA on 6.36 acres (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 1,985.34 ft<sup>2</sup> of pine BA on 48.04 acres of suitable habitat and 1,213.96 ft<sup>2</sup> of pine BA on 144.38 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 0.71% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 470.25 ft<sup>2</sup> of pine BA on 10.45 acres of suitable habitat, 289.23 ft<sup>2</sup> of pine BA on 3.61 acres of potentially suitable habitat and 2,439.82 ft<sup>2</sup> of pine BA on 178.36 acres of future potential habitat (Table 3-3). This partition can meet the RS in the future (Table 3-14).

**FB Cluster J02-02R:** This cluster had a PBG from 2004 to 2008 (Table 3-4). It had 9 cavity trees in various stages of completion and suitability (Appendix G). The Construction of Paved Training Area Roads (PN 65554) will impact 3 cavity trees within 50 feet and remove 5 cavity trees, which will result in “take” of the cluster from loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 459.43 ft<sup>2</sup> of pine BA on 10.81 acres of suitable habitat, 271.13 ft<sup>2</sup> of pine BA on 7.23 acres of potentially suitable habitat and 2,792.57 ft<sup>2</sup> of pine BA on 122.52 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 459.43 ft<sup>2</sup> of pine BA on 10.81 acres of suitable habitat and 3,063.70 ft<sup>2</sup> of pine BA on 129.75 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Construct Paved Training Area Roads Project (PN 65554) will remove 500.35 ft<sup>2</sup> of pine BA on 16.37 acres (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 260.10 ft<sup>2</sup> of pine BA on 6.12 acres of suitable habitat, 271.13 ft<sup>2</sup> of pine BA on 7.23 acres of potentially suitable habitat and 2,491.55 ft<sup>2</sup> of pine BA on 110.84 acres of future potential habitat (Table 3-2). This cluster will also be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 260.10 ft<sup>2</sup> of pine BA on 6.12 acres of suitable habitat and 2,762.68 ft<sup>2</sup> of pine BA on 118.07 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster J06-03:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 10 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 7,751.93 ft<sup>2</sup> of pine BA on 215.01 acres of suitable habitat, 4.04 ft<sup>2</sup> of pine BA on 0.13 acre of potentially suitable habitat and 2,012.96 ft<sup>2</sup> of pine BA on 73.30 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 53.63 ft<sup>2</sup> of pine BA on 1.43 acre of suitable habitat and 9,715.30 ft<sup>2</sup> of pine BA on 287.01 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Construction of Paved Training Area Roads Project (PN 65554) will remove 400.97 ft<sup>2</sup> of pine BA on 10.18 acres. The 2009 Southern Training Area Infrastructure – Maneuver Area (PN 69743) will remove 786.58 ft<sup>2</sup> of pine BA on 21.68 acres. The 2009 Southern Training Area Infrastructure – Upgrade Paved Roads and Tank Trails (PN 69743) will remove 441.25 ft<sup>2</sup> of pine BA on 12.43 acres (Table 3-5 and Figure 3-8).

The post- project SMS foraging habitat totals were 6,338.48 ft<sup>2</sup> of pine BA on 178.02 acres of suitable habitat, 4.04 ft<sup>2</sup> of pine BA on 0.13 acre of potentially suitable habitat and 1,797.61 ft<sup>2</sup> of pine BA on 66.00 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-11). Loblolly pine that is at high risk of decline accounts for 2.44% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 36.38 ft<sup>2</sup> of pine BA on 0.97 acres of suitable habitat and 8,103.75 ft<sup>2</sup> of pine BA on 243.18 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster K02-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and had 6 cavity trees in various stages of completion and suitability (Appendix G). The Stationary Tank Range (ST2) (65383) will remove all 6 cavity trees, resulting in “take” of the cluster from loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 330.41 ft<sup>2</sup> of pine BA on 10.65 acres of potentially suitable habitat and 5,602.37 ft<sup>2</sup> of pine BA on 245.71 acres of future potential habitat (Table 3-2). There was no suitable habitat.

The pre- project RS foraging habitat totals were 5,932.78 ft<sup>2</sup> of pine BA on 256.36 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2009 ST2 (PN 65383) will remove 2,894.42 ft<sup>2</sup> of pine BA on 123.79 acres. The ST2 construction limits will remove 899.31 ft<sup>2</sup> of pine BA on 39.60 acres (Table 3-5 and Figure 3-4). The 2011 ST2 beaten area will remove 139.91 ft<sup>2</sup> of pine BA on 7.74 acres (Table 3-7 and Figure 3-4). As a result of project impacts, 356.70 ft<sup>2</sup> of pine BA on 12.69 acres will be non-contiguous and cannot be counted towards the available foraging habitat for the partition (Table 3-2)

The post- project SMS foraging habitat totals were 1.26 ft<sup>2</sup> of pine BA on 0.04 acre of potentially suitable habitat and 1,641.18 ft<sup>2</sup> of pine BA on 72.50 acres of future potential habitat (Table 3-2). There was no suitable habitat. This cluster will also be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 100.00% of the SMS post-project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,642.44 ft<sup>2</sup> of pine BA on 72.54 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster K08-03:** This cluster had a PBG from 2004 to 2008 (Table 3-4). It had 5 cavity trees in various stages of completion and suitability (Appendix G). The Construction of Paved Training Area Roads (PN 65554) will impact 1 cavity tree within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 3,561.55 ft<sup>2</sup> of pine BA on 97.98 acres of suitable habitat and 0.00 ft<sup>2</sup> of pine BA on 28.93 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 1,603.10 ft<sup>2</sup> of pine BA on 37.72 acres of suitable habitat and 1,958.45 ft<sup>2</sup> of pine BA on 89.19 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Construct Paved Training Area Roads Project (PN 65554) will remove 434.05 ft<sup>2</sup> of pine BA on 12.50 acres (Table 3-5 and Figure 3-7).

The post- project SMS foraging habitat totals were 3,127.50 ft<sup>2</sup> of pine BA on 85.48 acres of suitable habitat and 0.00 ft<sup>2</sup> of pine BA on 28.93 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 30.83% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,484.95 ft<sup>2</sup> of pine BA on 34.94 acres of suitable habitat and 1,642.55 ft<sup>2</sup> of pine BA on 79.47 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-15).

**FB Cluster K08-04:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 6 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 6,661.97 ft<sup>2</sup> of pine BA on 180.60 acres of suitable habitat and 129.66 ft<sup>2</sup> of pine BA on 11.79 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 983.45 ft<sup>2</sup> of pine BA on 23.14 acres of suitable habitat, 207.48 ft<sup>2</sup> of pine BA on 5.46 acres of potentially suitable habitat and 5,600.70 ft<sup>2</sup> of pine BA on 163.79 acres of future potential habitat (Table 3-3).

The 2009 Construct Paved Training Area Roads Project (PN 65554) will remove 565.75 ft<sup>2</sup> of pine BA on 15.14 acres (Table 3-5 and Figure 3-7). As a result of project impacts,

1,086.30 ft<sup>2</sup> of pine BA on 37.59 acres will be non-contiguous and cannot be counted towards the available foraging habitat for the partition (Table 3-2).

The post- project SMS foraging habitat totals were 5,139.58 ft<sup>2</sup> of pine BA on 136.31 acres of suitable habitat and 0.00 ft<sup>2</sup> of pine BA on 3.35 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 25.30% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 878.05 ft<sup>2</sup> of pine BA on 20.66 acres of suitable habitat, 112.10 ft<sup>2</sup> of pine BA on 2.95 acres of potentially suitable habitat and 4,149.43 ft<sup>2</sup> of pine BA on 116.05 acres of future potential habitat (Table 3-3). This partition may meet the RS in the future (Table 3-15).

**FB Cluster K09-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 6 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 3,810.40 ft<sup>2</sup> of pine BA on 89.84 acres of suitable habitat, 22.00 ft<sup>2</sup> of pine BA on 0.44 acre of potentially suitable habitat and 1,672.01 ft<sup>2</sup> of pine BA on 59.02 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 2,240.38 ft<sup>2</sup> of pine BA on 49.40 acres of suitable habitat, 1,034.70 ft<sup>2</sup> of pine BA on 27.09 acres of potentially suitable habitat and 2,229.33 ft<sup>2</sup> of pine BA on 72.81 acres of future potential habitat (Table 3-3).

The 2009 Construct Paved Training Area Roads Project (PN 65554) will remove 110.59 ft<sup>2</sup> of pine BA on 3.43 acres (Table 3-5 and Figure 3-7).

The post- project SMS foraging habitat totals were 3,765.60 ft<sup>2</sup> of pine BA on 88.64 acres of suitable habitat, 22.00 ft<sup>2</sup> of pine BA on 0.44 acre of potentially suitable habitat and 1,606.22 ft<sup>2</sup> of pine BA on 56.79 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 0.18% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 2,240.38 ft<sup>2</sup> of pine BA on 49.40 acres of suitable habitat, 994.80 ft<sup>2</sup> of pine BA on 26.04 acres of potentially suitable habitat and 2,158.64 ft<sup>2</sup> of pine BA on 70.43 acres of future potential habitat (Table 3-3). This partition may meet the RS in the future (Table 3-15).

**FB Cluster K09-02R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and had 6 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 4,621.83 ft<sup>2</sup> of pine BA on 124.95 acres of suitable habitat, 102.00 ft<sup>2</sup> of pine BA on 2.04 acres of potentially suitable habitat and 478.76 ft<sup>2</sup> of pine BA on 26.19 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 97.71 ft<sup>2</sup> of pine BA on 2.44 acres of suitable habitat, 102.00 ft<sup>2</sup> of pine BA on 2.04 acres of potentially suitable habitat and 5,002.88 ft<sup>2</sup> of pine BA on 148.70 acres of future potential habitat (Table 3-3).

The 2009 Multi-purpose Training Range (MPTR) (PN 64551) will remove 834.77 ft<sup>2</sup> of pine BA on 30.87 acres. The MPTR construction limits will remove 300.86 ft<sup>2</sup> of pine BA on 10.99 acres (Table 3-5 and Figure 3-7). The 2011 MPTR beaten area will remove 41.37 ft<sup>2</sup> of pine BA on 2.51 acres (Table 3-7 and Figure 3-7)

The post- project SMS foraging habitat totals were 3,878.45 ft<sup>2</sup> of pine BA on 105.05 acres of suitable habitat, 102.00 ft<sup>2</sup> of pine BA on 2.04 acres of potentially suitable habitat and 45.14 ft<sup>2</sup> of pine BA on 1.72 acre of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 0.01% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 0.91 ft<sup>2</sup> of pine BA on 0.02 acre of suitable habitat, 102.00 ft<sup>2</sup> of pine BA on 2.04 acres of potentially suitable habitat and 3,922.68 ft<sup>2</sup> of pine BA on 106.75 acres of future potential habitat (Table 3-3). This partition cannot meet RS in the future (Table 3-15).

**FB Cluster K09-03R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 7 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 5,160.01 ft<sup>2</sup> of pine BA on 144.42 acres of suitable habitat, 2,216.00 ft<sup>2</sup> of pine BA on 44.32 acres of potentially suitable habitat and 644.11 ft<sup>2</sup> of pine BA on 58.23 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 2,216.00 ft<sup>2</sup> of pine BA on 44.32 acres of potentially suitable habitat and 5,804.12 ft<sup>2</sup> of pine BA on 202.65 acres of future potential habitat (Table 3-3). There was no suitable habitat.

The 2009 MPTR (PN 64551) will remove 50.63 ft<sup>2</sup> of pine BA on 1.47 acre. The 2009 Construct Paved Training Area Roads Project (PN 65554) will remove 403.26 ft<sup>2</sup> of pine BA on 15.75 acres (Table 3-5 and Figure 3-7).

The post- project SMS foraging habitat totals were 4,844.88 ft<sup>2</sup> of pine BA on 135.19 acres of suitable habitat, 2,185.50 ft<sup>2</sup> of pine BA on 43.71 acres of potentially suitable habitat and 535.83 ft<sup>2</sup> of pine BA on 50.85 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 26.37% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 2,185.50 ft<sup>2</sup> of pine BA on 43.71 acres of potentially suitable habitat and 5,380.71 ft<sup>2</sup> of pine BA on 186.04 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster K11-02:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and had 13 cavity trees in various stages of completion and suitability (Appendix G). The Construction of Paved Training Area Roads (PN 65554) will impact 5 cavity trees within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 8,250.23 ft<sup>2</sup> of pine BA on 219.20 acres of suitable habitat, 174.08 ft<sup>2</sup> of pine BA on 5.12 acres of potentially suitable habitat and 386.90 ft<sup>2</sup> of pine BA on 58.35 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 2,854.25 ft<sup>2</sup> of pine BA on 68.15 acres of suitable habitat and 5,956.96 ft<sup>2</sup> of pine BA on 214.52 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 MPTR (PN 64551) construction limits will remove 2,042.28 ft<sup>2</sup> of pine BA on 53.90 acres. The access road for the MPTR will remove 62.37 ft<sup>2</sup> of pine BA on 1.54 acre. The 2009 Construct Paved Training Area Roads Project (PN 65554) will remove 500.73 ft<sup>2</sup> of pine BA on 18.22 acres (Table 3-5 and Figure 3-7).

The post- project SMS foraging habitat totals were 5,902.93 ft<sup>2</sup> of pine BA on 159.86 acres of suitable habitat, 174.08 ft<sup>2</sup> of pine BA on 5.12 acres of potentially suitable habitat and 128.82 ft<sup>2</sup> of pine BA on 44.03 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 13.66% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,200.82 ft<sup>2</sup> of pine BA on 27.65 acres of suitable habitat and 5,005.01 ft<sup>2</sup> of pine BA on 181.36 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

This partition will be taken at the group level due to the decrease in cluster density within 1.25 miles of its cluster center (Tables 3-11, 3-16 and Figure 3-12).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster K11-04R:** This cluster was inactive from 2004 to 2006 but had a PBG in 2007 and 2008 (Table 3-4). It contained 4 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 1,730.88 ft<sup>2</sup> of pine BA on 46.50 acres of suitable habitat and 1,966.25 ft<sup>2</sup> of pine BA on 129.93 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat

The pre- project RS foraging habitat totals were 716.26 ft<sup>2</sup> of pine BA on 16.98 acres of suitable habitat and 2,980.87 ft<sup>2</sup> of pine BA on 159.45 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 MPTR (PN 64551) construction limits will remove 1,048.55 ft<sup>2</sup> of pine BA on 56.28 acres. The access road for the MPTR will remove 135.33 ft<sup>2</sup> of pine BA on 4.26 acres. The 2009 Construct Paved Training Area Roads Project (PN 65554) will remove 349.11 ft<sup>2</sup> of pine BA on 19.23 acres (Table 3-5 and Figure 3-7).

The post- project SMS foraging habitat totals were 1,349.14 ft<sup>2</sup> of pine BA on 37.21 acres of suitable habitat and 815.00 ft<sup>2</sup> of pine BA on 59.45 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 7.12% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 334.52 ft<sup>2</sup> of pine BA on 7.69 acres of suitable habitat and 1,829.62 ft<sup>2</sup> of pine BA on 88.97 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster K12-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 7 cavity trees in various stages of completion and suitability (Appendix G). Construction of the MPTR (PN 64551) beaten area will impact 1 cavity tree within 51 to 200 feet and remove 6 cavity trees (Table 3-9). These removals would result in “take” of the cluster by loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 5,735.15 ft<sup>2</sup> of pine BA on 137.11 acres of suitable habitat and 397.22 ft<sup>2</sup> of pine BA on 65.27 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 3,577.17 ft<sup>2</sup> of pine BA on 83.19 acres of suitable habitat and 2,555.20 ft<sup>2</sup> of pine BA on 119.19 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2011 MPTR (PN 64551) beaten area will remove 1,962.37 ft<sup>2</sup> of pine BA on 45.82 acres (Table 3-5 and Figure 3-7).

The post- project SMS foraging habitat totals were 3,772.78 ft<sup>2</sup> of pine BA on 91.29 acres of suitable habitat and 397.22 ft<sup>2</sup> of pine BA on 65.27 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will not be taken at the cluster level

due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 9.46% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,689.47 ft<sup>2</sup> of pine BA on 39.29 acres of suitable habitat and 2,480.53 ft<sup>2</sup> of pine BA on 117.27 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster K13-02:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and had 8 cavity trees in various stages of completion and suitability (Appendix G). Construction of the MPTR (PN 64551) beaten area will impact 1 cavity tree within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 4,397.26 ft<sup>2</sup> of pine BA on 92.47 acres of suitable habitat, 300.40 ft<sup>2</sup> of pine BA on 7.51 acres of potentially suitable habitat and 1,421.84 ft<sup>2</sup> of pine BA on 52.66 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 2,536.62 ft<sup>2</sup> of pine BA on 45.08 acres of suitable habitat and 3,582.88 ft<sup>2</sup> of pine BA on 107.56 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2011 MPTR (PN 64551) beaten area will remove 2,916.70 ft<sup>2</sup> of pine BA on 77.31 acres (Table 3-5 and Figure 3-7).

The post- project SMS foraging habitat totals were 1,970.84 ft<sup>2</sup> of pine BA on 34.09 acres of suitable habitat, 300.40 ft<sup>2</sup> of pine BA on 7.51 acres of potentially suitable habitat and 931.56 ft<sup>2</sup> of pine BA on 33.73 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 20.77% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,970.84 ft<sup>2</sup> of pine BA on 34.09 acres of suitable habitat and 1,231.97 ft<sup>2</sup> of pine BA on 41.24 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster K13-04:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 10 cavity trees in various stages of completion and suitability (Appendix G). Construction of the MPTR (PN 64551) beaten area will remove all 10 cavity trees, resulting in “take” of the cluster by loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 1,779.47 ft<sup>2</sup> of pine BA on 54.07 acres of suitable habitat, 1,885.00 ft<sup>2</sup> of pine BA on 40.74 acres of potentially suitable habitat and 720.16 ft<sup>2</sup> of pine BA on 84.04 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 32.90 ft<sup>2</sup> of pine BA on 0.70 acre of potentially suitable habitat and 4,351.73 ft<sup>2</sup> of pine BA on 178.15 acres of future potential habitat (Table 3-3). There was no suitable habitat.

The MPTR 2011 (PN 64551) beaten area will remove 2,340.61 ft<sup>2</sup> of pine BA on 93.77 acres (Table 3-5 and Figure 3-7).

The post- project SMS foraging habitat totals were 571.81 ft<sup>2</sup> of pine BA on 17.07 acres of suitable habitat, 752.05 ft<sup>2</sup> of pine BA on 15.84 acres of potentially suitable habitat and 720.16 ft<sup>2</sup> of pine BA on 52.17 acres of future potential habitat (Table 3-2). This cluster will also be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 46.98% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 32.90 ft<sup>2</sup> of pine BA on 0.70 acre of potentially suitable habitat and 2,011.12 ft<sup>2</sup> of pine BA on 84.38 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

This cluster is currently monitored as a minimization effort for the DMPRC (FBCB, unpub. data).

**FB Cluster K13-05R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and had 8 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 2,538.46 ft<sup>2</sup> of pine BA on 55.07 acres of suitable habitat and 1,062.07 ft<sup>2</sup> of pine BA on 54.29 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 1,033.22 ft<sup>2</sup> of pine BA on 19.60 acres of suitable habitat, 996.15 ft<sup>2</sup> of pine BA on 22.90 acres of potentially suitable habitat and 1,571.16 ft<sup>2</sup> of pine BA on 66.86 acres of future potential habitat (Table 3-3).

The 2011 MPTR (PN 64551) beaten area will remove 545.81 ft<sup>2</sup> of pine BA on 17.28 acres (Table 3-5 and Figure 3-7).

The post- project SMS foraging habitat totals were 2,018.65 ft<sup>2</sup> of pine BA on 42.30 acres of suitable habitat and 1,036.07 ft<sup>2</sup> of pine BA on 49.78 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 3.07% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,020.47 ft<sup>2</sup> of pine BA on 19.35 acres of suitable habitat, 996.15 ft<sup>2</sup> of pine BA on 22.90 acres of potentially suitable habitat and 1,038.11 ft<sup>2</sup> of pine BA on 49.83 acres of future potential habitat (Table 3-3). This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster K13-06:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 5 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 1,171.79 ft<sup>2</sup> of pine BA on 33.75 acres of suitable habitat, 5,483.35 ft<sup>2</sup> of pine BA on 129.48 acres of potentially suitable habitat and 0.00 ft<sup>2</sup> of pine BA on 46.70 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 3,564.95 ft<sup>2</sup> of pine BA on 75.85 acres of potentially suitable habitat and 3,090.19 ft<sup>2</sup> of pine BA on 134.08 acres of future potential habitat (Table 3-3). There was no suitable habitat.

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 22.40 ft<sup>2</sup> of pine BA on 5.28 acres (Table 3-6 and Figure 3-7).

The post- project SMS foraging habitat totals were 1,171.79 ft<sup>2</sup> of pine BA on 33.75 acres of suitable habitat, 5,460.95 ft<sup>2</sup> of pine BA on 128.85 acres of potentially suitable habitat and 0.00 ft<sup>2</sup> of pine BA on 42.05 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 35.18% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 3,564.95 ft<sup>2</sup> of pine BA on 75.85 acres of potentially suitable habitat and 3,067.79 ft<sup>2</sup> of pine BA on 128.80 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition can meet the RS in the future (Table 3-15).

This partition will be taken at the group level due to the decrease in cluster density within 1.25 miles of its cluster center (Tables 3-11, 3-16 and Figure 3-12).

**FB Cluster K21-02R:** This cluster was inactive in 2005, but had a PBG in 2004, 2006, 2007 and 2008 (Table 3-4). It contained 6 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 7,509.92 ft<sup>2</sup> of pine BA on 175.02 acres of suitable habitat and 780.02 ft<sup>2</sup> of pine BA on 33.15 of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 2,639.38 ft<sup>2</sup> of pine BA on 51.25 acres of suitable habitat and 5,650.56 ft<sup>2</sup> of pine BA on 156.92 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Southern Training Area Infrastructure – Maneuver Area (PN 69743) will remove 1,394.69 ft<sup>2</sup> of pine BA on 36.85 acres (Table 3-5 and Figure 3-8).

The post- project SMS foraging habitat totals were 6,224.88 ft<sup>2</sup> of pine BA on 142.83 acres of suitable habitat and 670.37 ft<sup>2</sup> of pine BA on 28.49 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-11). Loblolly pine that is at high risk of decline accounts for 0.27% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 2,639.38 ft<sup>2</sup> of pine BA on 51.25 acres of suitable habitat and 4,255.87 ft<sup>2</sup> of pine BA on 120.07 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster K21-05R:** This cluster had a PBG in 2007 and 2008 (Table 3-4) and had 4 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 10,454.52 ft<sup>2</sup> of pine BA on 245.38 acres of suitable habitat and 321.50 ft<sup>2</sup> of pine BA on 27.39 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 5,102.19 ft<sup>2</sup> of pine BA on 111.35 acres of suitable habitat, 112.53 ft<sup>2</sup> of pine BA on 2.42 acres of potentially suitable habitat and 5,561.30 ft<sup>2</sup> of pine BA on 159.00 acres of future potential habitat (Table 3-3).

The 2009 Southern Training Infrastructure – Maneuver Area (PN 69743) will remove 2,375.07 ft<sup>2</sup> of pine BA on 59.24 acres (Table 3-5 and Figure 3-8). The 2010 Repair Existing Training Area Roads Project (PN 65557) project will remove 396.03 ft<sup>2</sup> of pine BA on 9.57 acres (Table 3-6 and Figure 3-8)

The post- project SMS foraging habitat totals were 7,683.99 ft<sup>2</sup> of pine BA on 176.60 acres of suitable habitat and 320.93 ft<sup>2</sup> of pine BA on 27.36 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-11). Loblolly pine that is at high risk of decline accounts for 0.71% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 4,853.46 ft<sup>2</sup> of pine BA on 105.51 acres of suitable habitat, 112.53 ft<sup>2</sup> of pine BA on 2.42 acres of potentially suitable habitat and 3,038.93 ft<sup>2</sup> of pine BA on 96.03 acres of future potential habitat (Table 3-3). This partition can meet the RS in the future (Table 3-15).

This cluster is a SRC and is therefore included in the Incidental Take Statement in the RCW ESMP BO due to training impacts; however, this “take” does not cover project impacts (USFWS 2002).

**FB Cluster KPR-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 12 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 4,519.79 ft<sup>2</sup> of pine BA on 82.03 acres of suitable habitat, 2,869.86 ft<sup>2</sup> of pine BA on 67.75 acres of potentially suitable habitat and 501.11 ft<sup>2</sup> of pine BA on 27.50 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 2,987.70 ft<sup>2</sup> of pine BA on 60.42 acres of potentially suitable habitat and 4,903.06 ft<sup>2</sup> of pine BA on 116.86 acres of future potential habitat (Table 3-3). There was no suitable habitat.

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 1,014.56 ft<sup>2</sup> of pine BA on 21.65 acres (Table 3-6 and Figure 3-3).

The post- project SMS foraging habitat totals were 3,909.16 ft<sup>2</sup> of pine BA on 71.40 acres of suitable habitat, 2,549.12 ft<sup>2</sup> of pine BA on 59.95 acres of potentially suitable habitat and 417.92 ft<sup>2</sup> of pine BA on 24.28 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 63.46% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 2,654.30 ft<sup>2</sup> of pine BA on 53.63 acres of potentially suitable habitat and 4,221.90 ft<sup>2</sup> of pine BA on 102.00 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster L02-02R:** This cluster was inactive from 2004 to 2005 and had a PBG from 2006 to 2008 (Table 3-4). It had 5 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 4,613.67 ft<sup>2</sup> of pine BA on 117.31 acres of suitable habitat, 1,052.86 ft<sup>2</sup> of pine BA on 24.17 acres of potentially suitable habitat and 2,206.05 ft<sup>2</sup> of pine BA on 112.06 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 3,418.24 ft<sup>2</sup> of pine BA on 90.79 acres of suitable habitat, 1,080.91 ft<sup>2</sup> of pine BA on 19.84 acres of potentially suitable habitat and 3,373.43 ft<sup>2</sup> of pine BA on 142.91 acres of future potential habitat (Table 3-3).

The 2009 Construct Paved Training Area Roads Project (PN 65554) will remove 609.76 ft<sup>2</sup> of pine BA on 17.33 acres (Table 3-5 and Figure 3-4). The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 354.61 ft<sup>2</sup> of pine BA on 13.97 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 4,065.85 ft<sup>2</sup> of pine BA on 103.12 acres of suitable habitat, 959.26 ft<sup>2</sup> of pine BA on 21.05 acres of potentially suitable habitat and 1,883.10 ft<sup>2</sup> of pine BA on 98.07 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to foraging habitat loss (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 13.13% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 3,060.94 ft<sup>2</sup> of pine BA on 81.30 acres of suitable habitat, 1,080.91 ft<sup>2</sup> of pine BA on 19.84 acres of potentially suitable habitat and 2,766.36 ft<sup>2</sup> of pine BA on 121.10 acres of future potential habitat (Table 3-3). This partition can meet the RS in the future (Table 3-15).

This partition will be taken at the group level due to the decrease in cluster density within 1.25 miles of its cluster center (Tables 3-11, 3-16 and Figure 3-10).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects. In addition, this cluster is a SRC and is therefore included in the Incidental Take Statement in the RCW ESMP BO due to training impacts; however, this “take” does not cover project impacts (USFWS 2002).

**FB Cluster L03-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 9 cavity trees in various stages of completion and suitability (Appendix G). The Repair of Existing Training Area Roads (PN 65557) will have impacts within 51 to 200 feet of 1 cavity tree (Table 3-9).

The pre- project SMS foraging habitat totals were 1,966.83 ft<sup>2</sup> of pine BA on 41.59 acres of suitable habitat, 399.76 ft<sup>2</sup> of pine BA on 8.90 acres of potentially suitable habitat and 1,140.23 ft<sup>2</sup> of pine BA on 57.40 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 1,472.04 ft<sup>2</sup> of pine BA on 27.26 acres of suitable habitat, 238.13 ft<sup>2</sup> of pine BA on 4.59 acres of potentially suitable habitat and 1,796.65 ft<sup>2</sup> of pine BA on 76.04 acres of future potential habitat (Table 3-3).

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 365.66 ft<sup>2</sup> of pine BA on 13.40 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 1,882.31 ft<sup>2</sup> of pine BA on 38.95 acres of suitable habitat, 324.01 ft<sup>2</sup> of pine BA on 6.88 acres of potentially suitable habitat and 934.84 ft<sup>2</sup> of pine BA on 48.66 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 13.44% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,472.04 ft<sup>2</sup> of pine BA on 27.26 acres of suitable habitat, 238.13 ft<sup>2</sup> of pine BA on 4.59 acres of potentially suitable habitat and 1,430.99 ft<sup>2</sup> of pine BA on 62.64 acres of future potential habitat (Table 3-3). This partition cannot meet the RS in the future (Table 3-14).

This cluster is currently monitored as a minimization effort for the DMPRC (FBCB, unpub. data).

**FB Cluster M01-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 10 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 2,133.46 ft<sup>2</sup> of pine BA on 48.31 acres of suitable habitat and 1,323.19 ft<sup>2</sup> of pine BA on 65.14 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 1,925.10 ft<sup>2</sup> of pine BA on 42.78 acres of potentially suitable habitat and 1,531.55 ft<sup>2</sup> of pine BA on 70.67 acres of future potential habitat (Table 3-3). There was no suitable habitat.

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 127.25 ft<sup>2</sup> of pine BA on 3.79 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 2,057.62 ft<sup>2</sup> of pine BA on 46.62 acres of suitable habitat and 1,271.78 ft<sup>2</sup> of pine BA on 63.04 acres of future potential habitat (Table 3-

2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 5.60% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,867.50 ft<sup>2</sup> of pine BA on 41.50 acres of potentially suitable habitat and 1,461.90 ft<sup>2</sup> of pine BA on 68.16 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster M08-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 9 cavity trees in various stages of completion and suitability (Appendix G). The Repair of Existing Training Roads (Phase I) (PN 65557) will impact 1 cavity tree within 50 feet, 4 cavity trees within 51 to 200 feet and will remove 1 inactive cavity tree and 1 active start tree (Table 3-9). These impacts and removals will likely result in “take” of the cluster by harassment (Table 3-11).

The pre- project SMS foraging habitat totals were 5,256.85 ft<sup>2</sup> of pine BA on 115.13 acres of suitable habitat, 758.48 ft<sup>2</sup> of pine BA on 19.96 acres of potentially suitable habitat and 3,323.74 ft<sup>2</sup> of pine BA on 133.14 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 9,339.07 ft<sup>2</sup> of pine BA on 268.23 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 654.17 ft<sup>2</sup> of pine BA on 18.35 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 4,742.82 ft<sup>2</sup> of pine BA on 103.08 acres of suitable habitat, 758.48 ft<sup>2</sup> of pine BA on 19.96 acres of potentially suitable habitat and 3,183.60 ft<sup>2</sup> of pine BA on 126.84 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 24.46% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 8,684.90 ft<sup>2</sup> of pine BA on 249.88 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster M08-02a:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 11 cavity trees in various stages of completion and suitability (Appendix G). The Repair of Existing Training Roads (Phase I) (PN 65557) will have impacts within 51 to 200 feet of 1 cavity tree (Table 3-9).

The pre- project SMS foraging habitat totals were 5,686.47 ft<sup>2</sup> of pine BA on 123.64 acres of suitable habitat, 830.68 ft<sup>2</sup> of pine BA on 17.25 acres of potentially suitable habitat and 286.45 ft<sup>2</sup> of pine BA on 17.55 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 2,479.35 ft<sup>2</sup> of pine BA on 46.60 acres of suitable habitat, 1,246.00 ft<sup>2</sup> of pine BA on 31.53 acres of potentially suitable habitat and 3,078.25 ft<sup>2</sup> of pine BA on 80.31 acres of future potential habitat (Table 3-3).

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 435.87 ft<sup>2</sup> of pine BA on 9.16 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 5,277.35 ft<sup>2</sup> of pine BA on 114.98 acres of suitable habitat, 803.93 ft<sup>2</sup> of pine BA on 16.75 acres of potentially suitable habitat and 286.45 ft<sup>2</sup> of pine BA on 17.55 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 7.67% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 2,128.54 ft<sup>2</sup> of pine BA on 39.53 acres of suitable habitat, 1,246.00 ft<sup>2</sup> of pine BA on 31.53 acres of potentially suitable habitat and 2,993.19 ft<sup>2</sup> of pine BA on 78.22 acres of future potential habitat (Table 3-3). This partition may meet the RS in the future (Table 3-15).

**FB Cluster M08-02b:** This cluster had a PBG from 2005 to 2008 (Table 3-4) and had 5 cavity trees in various stages of completion and suitability (Appendix G). The Repair of Existing Training Roads (Phase I) (PN 65557) will impact 2 cavity trees within 50 feet, 1 cavity tree within 51 to 200 feet and will remove 1 active cavity tree (Table 3-9). These impacts and removals will likely result in “take” of the cluster by harassment (Table 3-11).

The pre- project SMS foraging habitat totals were 3,351.79 ft<sup>2</sup> of pine BA on 75.99 acres of suitable habitat, 374.84 ft<sup>2</sup> of pine BA on 10.35 acres of potentially suitable habitat and 663.06 ft<sup>2</sup> of pine BA on 30.41 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 1,418.76 ft<sup>2</sup> of pine BA on 31.08 acres of suitable habitat, 812.45 ft<sup>2</sup> of pine BA on 17.97 acres of potentially suitable habitat and 2,158.48 ft<sup>2</sup> of pine BA on 67.70 acres of future potential habitat (Table 3-3).

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 549.03 ft<sup>2</sup> of pine BA on 14.92 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 2,938.65 ft<sup>2</sup> of pine BA on 66.63 acres of suitable habitat, 374.84 ft<sup>2</sup> of pine BA on 10.35 acres of potentially suitable habitat and 527.17 ft<sup>2</sup> of pine BA on 24.85 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 1.48% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,255.32 ft<sup>2</sup> of pine BA on 27.38 acres of suitable habitat, 634.13 ft<sup>2</sup> of pine BA on 14.03 acres of potentially suitable habitat and 1,998.62 ft<sup>2</sup> of pine BA on 62.36 acres of future potential habitat (Table 3-3). This partition cannot meet the RS in the future (Table 3-15).

**FB Cluster M08-04R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 5 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 1,894.52 ft<sup>2</sup> of pine BA on 52.64 acres of suitable habitat, 1,383.53 ft<sup>2</sup> of pine BA on 42.57 acres of potentially suitable habitat and 2,140.82 ft<sup>2</sup> of pine BA on 100.17 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 5,418.87 ft<sup>2</sup> of pine BA on 195.38 acres of future potential habitat. There was no suitable or potentially suitable habitat (Table 3-3).

The 2010 Repair of Existing Training Area Roads (PN 65557) will remove 191.91 ft<sup>2</sup> of pine BA on 8.87 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 1,805.46 ft<sup>2</sup> of pine BA on 50.01 acres of suitable habitat, 1,383.53 ft<sup>2</sup> of pine BA on 42.57 acres of potentially suitable habitat and 2,037.97 ft<sup>2</sup> of pine BA on 93.93 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-

10). Loblolly pine that is at high risk of decline accounts for 36.88% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 5,226.96 ft<sup>2</sup> of pine BA on 186.51 acres of future potential habitat (Table 3-3). This partition can meet the RS in the future (Table 3-15).

**FB Cluster M08-05R:** This cluster had a PBG in 2004, 2005, 2006 and 2008 and a solitary male in 2007 (Table 3-4). It had 7 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 4,240.06 ft<sup>2</sup> of pine BA on 94.72 acres of suitable habitat, 3,652.10 ft<sup>2</sup> of pine BA on 84.06 acres of potentially suitable habitat and 1,182.08 ft<sup>2</sup> of pine BA on 73.04 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 1,014.73 ft<sup>2</sup> of pine BA on 15.98 acres of potentially suitable habitat and 8,059.51 ft<sup>2</sup> of pine BA on 235.84 acres of future potential habitat (Table 3-3). There was no suitable habitat.

The 2009 Northern Training Area Infrastructure Tank Trail Upgrade Project (PN 69742) will remove 20.84 ft<sup>2</sup> of pine BA on 1.04 acre (Table 3-5 and Figure 3-4). The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 149.40 ft<sup>2</sup> of pine BA on 7.04 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 4,230.44 ft<sup>2</sup> of pine BA on 94.46 acres of suitable habitat, 3,594.77 ft<sup>2</sup> of pine BA on 82.22 acres of potentially suitable habitat and 1,078.79 ft<sup>2</sup> of pine BA on 67.06 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 39.42% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,014.73 ft<sup>2</sup> of pine BA on 15.98 acres of potentially suitable habitat and 7,889.27 ft<sup>2</sup> of pine BA on 227.76 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster N01-02:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 7 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 2,522.32 ft<sup>2</sup> of pine BA on 65.26 acres of suitable habitat, 1,339.39 ft<sup>2</sup> of pine BA on 29.33 acres of potentially suitable habitat and 351.12 ft<sup>2</sup> of pine BA on 33.59 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 938.86 ft<sup>2</sup> of pine BA on 20.41 acres of suitable habitat, 502.08 ft<sup>2</sup> of pine BA on 10.46 acres of potentially suitable habitat and 2,890.39 ft<sup>2</sup> of pine BA on 100.31 acres of future potential habitat (Table 3-3).

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 156.85 ft<sup>2</sup> of pine BA on 4.36 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 2,484.10 ft<sup>2</sup> of pine BA on 64.28 acres of suitable habitat, 1,241.16 ft<sup>2</sup> of pine BA on 26.97 acres of potentially suitable habitat and 330.72 ft<sup>2</sup> of pine BA on 32.57 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 44.25% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 938.86 ft<sup>2</sup> of pine BA on 20.41 acres of suitable habitat, 502.08 ft<sup>2</sup> of pine BA on 10.46 acres of potentially suitable habitat and 2,733.54 ft<sup>2</sup> of pine BA on 95.95 acres of future potential habitat (Table 3-3). This partition may meet the RS in the future (Table 3-15).

**FB Cluster O01-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and had 14 cavity trees in various stages of completion and suitability (Appendix G). The Northern Training Area Infrastructure - Upgrade Tank Trails (PN 69742) will impact 3 cavity trees within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 4,120.49 ft<sup>2</sup> of pine BA on 110.72 acres of suitable habitat, 935.95 ft<sup>2</sup> of pine BA on 28.35 acres of potentially suitable habitat and 47.78 ft<sup>2</sup> of pine BA on 9.25 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 1,482.92 ft<sup>2</sup> of pine BA on 34.25 acres of suitable habitat, 2.05 ft<sup>2</sup> of pine BA on 0.05 acre of potentially suitable habitat and 3,619.25 ft<sup>2</sup> of pine BA on 114.02 acres of future potential habitat (Table 3-3).

The 2009 Northern Training Area Infrastructure - Upgrade Tank Trails (PN 69742) will remove 95.33 ft<sup>2</sup> of pine BA on 2.31 acres (Table 3-5 and Figure 3-4).

The post- project SMS foraging habitat totals were 4,025.16 ft<sup>2</sup> of pine BA on 108.41 acres of suitable habitat, 935.95 ft<sup>2</sup> of pine BA on 28.35 acres of potentially suitable habitat and 47.78 ft<sup>2</sup> of pine BA on 9.25 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 19.74% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,482.92 ft<sup>2</sup> of pine BA on 34.25 acres of suitable habitat, 2.05 ft<sup>2</sup> of pine BA on 0.05 acre of potentially suitable habitat and 3,523.92 ft<sup>2</sup> of pine BA on 111.71 acres of future potential habitat (Table 3-3). This cluster can meet the RS in the future (Table 3-15).

**FB Cluster 001-02:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 7 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 877.11 ft<sup>2</sup> of pine BA on 24.05 acres of suitable habitat, 498.56 ft<sup>2</sup> of pine BA on 12.16 acres of potentially suitable habitat and 2,236.35 ft<sup>2</sup> of pine BA on 112.46 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 76.32 ft<sup>2</sup> of pine BA on 2.12 acres of suitable habitat, 498.56 ft<sup>2</sup> of pine BA on 12.16 acres of potentially suitable habitat and 3,037.14 ft<sup>2</sup> of pine BA on 134.39 acres of future potential habitat (Table 3-3).

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 339.82 ft<sup>2</sup> of pine BA on 13.05 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 712.46 ft<sup>2</sup> of pine BA on 19.60 acres of suitable habitat, 498.56 ft<sup>2</sup> of pine BA on 12.16 acres of potentially suitable habitat and 2,061.18 ft<sup>2</sup> of pine BA on 103.86 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies

(Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 6.30% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 76.32 ft<sup>2</sup> of pine BA on 2.12 acres of suitable habitat, 498.56 ft<sup>2</sup> of pine BA on 12.16 acres of potentially suitable habitat and 2,697.32 ft<sup>2</sup> of pine BA on 121.34 acres of future potential habitat (Table 3-3). This partition may meet the RS in the future (Table 3-14).

**FB Cluster O01-03:** This cluster was captured by O03-02 in 2007 and had a PBG in 2004, 2005, 2006 and 2008 (Table 3-4). It had 8 cavity trees in various stages of completion and suitability (Appendix G). The Northern Training Area Infrastructure Tank Trail Upgrade (PN 69742) will impact 4 cavity trees within 51 to 200 feet. In addition, the Repair of Existing Training Roads (Phase I) (PN 65557) will impact 3 different cavity trees within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 3,768.47 ft<sup>2</sup> of pine BA on 86.23 acres of suitable habitat, 1,079.14 ft<sup>2</sup> of pine BA on 23.52 acres of potentially suitable habitat and 745.27 ft<sup>2</sup> of pine BA on 40.74 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 156.91 ft<sup>2</sup> of pine BA on 3.35 acres of suitable habitat and 5,435.97 ft<sup>2</sup> of pine BA on 147.14 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Northern Training Area Infrastructure Tank Trail Upgrade (PN 69742) will remove 350.74 ft<sup>2</sup> of pine BA on 10.47 acres (Table 3-5 and Figure 3-4). The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 319.28 ft<sup>2</sup> of pine BA on 12.71 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 3,524.44 ft<sup>2</sup> of pine BA on 81.14 acres of suitable habitat, 881.94 ft<sup>2</sup> of pine BA on 19.18 acres of potentially suitable habitat and 516.48 ft<sup>2</sup> of pine BA on 26.99 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 32.04% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 102.58 ft<sup>2</sup> of pine BA on 2.19 acres of suitable habitat and 4,820.28 ft<sup>2</sup> of pine BA on 125.12 acres of future potential habitat (Table 3-

3). There was no potentially suitable habitat. This partition may meet the RS in the future (Table 3-15).

**FB Cluster O01-04R:** This cluster had a PBG in 2004, 2005, 2006 and 2008 but had a solitary male in 2007 (Table 3-4). It contained 6 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 2,058.33 ft<sup>2</sup> of pine BA on 48.70 acres of suitable habitat, 2,922.05 ft<sup>2</sup> of pine BA on 72.87 acres of potentially suitable habitat and 819.75 ft<sup>2</sup> of pine BA on 47.54 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 0.76 ft<sup>2</sup> of pine BA on 0.01 acre of suitable habitat and 5,799.37 ft<sup>2</sup> of pine BA on 169.10 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Northern Training Area Infrastructure Tank Trail Upgrade (PN 69742) will remove 300.81 ft<sup>2</sup> of pine BA on 10.34 acres (Table 3-5 and Figure 3-4). The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 378.36 ft<sup>2</sup> of pine BA on 11.98 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 1,803.90 ft<sup>2</sup> of pine BA on 42.18 acres of suitable habitat, 2,677.87 ft<sup>2</sup> of pine BA on 66.57 acres of potentially suitable habitat and 639.19 ft<sup>2</sup> of pine BA on 38.04 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 15.73% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 0.76 ft<sup>2</sup> of pine BA on 0.01 acre of suitable habitat and 5,120.20 ft<sup>2</sup> of pine BA on 146.78 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition may meet the RS in the future (Table 3-15).

**FB Cluster O02-01R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and had 7 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 2,430.15 ft<sup>2</sup> of pine BA on 54.69 acres of suitable habitat, 2,560.76 ft<sup>2</sup> of pine BA on 61.30 acres of potentially suitable habitat and 1,889.73 ft<sup>2</sup> of pine BA on 103.56 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 1,738.00 ft<sup>2</sup> of pine BA on 37.31 acres of suitable habitat, 2,416.13 ft<sup>2</sup> of pine BA on 56.85 acres of potentially suitable habitat and 2,726.51 ft<sup>2</sup> of pine BA on 125.39 acres of future potential habitat (Table 3-3).

The 2010 Repair Existing Training Area Roads project (PN 65557) will remove 459.92 ft<sup>2</sup> of pine BA on 18.07 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 2,114.45 ft<sup>2</sup> of pine BA on 46.87 acres of suitable habitat, 2,490.70 ft<sup>2</sup> of pine BA on 59.48 acres of potentially suitable habitat and 1,815.57 ft<sup>2</sup> of pine BA on 95.13 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 3.35% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,654.90 ft<sup>2</sup> of pine BA on 35.46 acres of suitable habitat, 2,369.80 ft<sup>2</sup> of pine BA on 55.76 acres of potentially suitable habitat and 2,396.02 ft<sup>2</sup> of pine BA on 110.26 acres of future potential habitat (Table 3-3). This partition can meet the RS in the future (Table 3-15).

**FB Cluster O03-01:** This cluster was inactive in 2004 and had a PBG from 2005 to 2008 (Table 3-4). It contained 9 cavity trees in various stages of completion and suitability (Appendix G). The Northern Training Area Infrastructure (PN 69742) will impact 1 cavity tree within 50 feet, 2 cavity trees within 51 to 200 feet and will remove 6 cavity trees (Table 3-9). This will result in “take” of the cluster from loss of cavity trees (Table 3-11).

The pre- project SMS foraging habitat totals were 669.02 ft<sup>2</sup> of pine BA on 16.68 acres of suitable habitat, 1,063.85 ft<sup>2</sup> of pine BA on 29.59 acres of potentially suitable habitat and 1,109.74 ft<sup>2</sup> of pine BA on 47.03 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 936.95 ft<sup>2</sup> of pine BA on 26.77 acres of potentially suitable habitat and 1,905.66 ft<sup>2</sup> of pine BA on 66.53 acres of future potential habitat (Table 3-3). There was no suitable habitat.

The 2009 Northern Training Area Infrastructure Tank Trail Upgrade (PN 69742) will remove 331.90 ft<sup>2</sup> of pine BA on 11.28 acres (Table 3-5 and Figure 3-4).

The post- project SMS foraging habitat totals were 629.02 ft<sup>2</sup> of pine BA on 15.68 acres of suitable habitat, 896.25 ft<sup>2</sup> of pine BA on 24.85 acres of potentially suitable habitat and 985.44 ft<sup>2</sup> of pine BA on 41.49 acres of future potential habitat (Table 3-2). This cluster will also be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 23.44% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 777.00 ft<sup>2</sup> of pine BA on 22.20 acres of potentially suitable habitat and 1,733.71 ft<sup>2</sup> of pine BA on 59.82 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster O03-02:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 7 cavity trees in various stages of completion and suitability (Appendix G). The Repair of Existing Training Roads (Phase I) (PN 65557) will impact 1 cavity tree within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 4,712.84 ft<sup>2</sup> of pine BA on 116.42 acres of suitable habitat and 648.55 ft<sup>2</sup> of pine BA on 47.04 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 2,669.80 ft<sup>2</sup> of pine BA on 63.17 acres of suitable habitat, 293.55 ft<sup>2</sup> of pine BA on 5.70 acres of potentially suitable habitat and 2,398.04 ft<sup>2</sup> of pine BA on 94.59 acres of future potential habitat (Table 3-3).

The 2009 Access Road for Basic 10M-25M Firing Range (Z2) Project (PN65036) will remove 17.28 ft<sup>2</sup> of pine BA on 0.42 acre. The 2009 Northern Training Area Infrastructure Tank Trail Upgrade (PN 69742) will remove 379.23 ft<sup>2</sup> pine BA on 10.75 acres. The 2009 Construct Training Area Roads Project (PN 65554) will remove 154.45 ft<sup>2</sup> of pine BA on 6.97 acres (Table 3-5 and Figure 3-4). The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 524.64 ft<sup>2</sup> of pine BA on 14.01 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 3,835.16 ft<sup>2</sup> of pine BA on 95.65 acres of suitable habitat and 450.63 ft<sup>2</sup> of pine BA on 35.66 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will not be taken at the cluster level

due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 1.55% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 2,079.83 ft<sup>2</sup> of pine BA on 49.28 acres of suitable habitat, 190.03 ft<sup>2</sup> of pine BA on 3.69 acres of potentially suitable habitat and 2,015.93 ft<sup>2</sup> of pine BA on 78.34 acres of future potential habitat (Table 3-3). This partition may meet the RS in the future (Table 3-15).

**FB Cluster O03-03:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and had 9 cavity trees in various stages of completion and suitability (Appendix G). The Northern Training Area Infrastructure (PN 69742) will impact 2 cavity trees within 50 feet, 1 cavity tree within 51 to 200 feet and remove 2 active cavity trees and 2 inactive cavity trees. In addition, the Repair of Existing Training Roads (Phase I) (PN 65557) will impact 1 cavity tree within 50 feet and 2 cavity trees within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 2,007.64 ft<sup>2</sup> of pine BA on 45.82 acres of suitable habitat and 1,272.13 ft<sup>2</sup> of pine BA on 116.60 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 1,165.32 ft<sup>2</sup> of pine BA on 22.41 acres of suitable habitat and 2,671.25 ft<sup>2</sup> of pine BA on 155.51 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Northern Training Area Infrastructure Tank Trail Upgrade (PN 69742) will remove 275.13 ft<sup>2</sup> pine BA on 10.25 acres (Table 3-5 and Figure 3-4). The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 288.02 ft<sup>2</sup> of pine BA on 13.45 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 1,609.69 ft<sup>2</sup> of pine BA on 37.27 acres of suitable habitat and 1,106.93 ft<sup>2</sup> of pine BA on 101.45 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 39.50% of the SMS post-project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 877.24 ft<sup>2</sup> of pine BA on 16.87 acres of suitable habitat and 2,396.18 ft<sup>2</sup> of pine BA on 137.35 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition can meet the RS in the future (Table 3-14).

**FB Cluster O03-04:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 10 cavity trees in various stages of completion and suitability (Appendix G). The Northern Training Area Infrastructure (PN 69742) will impact 5 cavity trees within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 1,037.71 ft<sup>2</sup> of pine BA on 30.00 acres of suitable habitat, 254.34 ft<sup>2</sup> of pine BA on 6.36 acres of potentially suitable habitat and 2,012.23 ft<sup>2</sup> of pine BA on 156.50 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 3,304.28 ft<sup>2</sup> of pine BA on 192.86 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2009 Northern Training Area Infrastructure Tank Trail Upgrade (PN 69742) will remove 356.64 ft<sup>2</sup> pine BA on 22.92 acres (Table 3-5 and Figure 3-4). The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 105.20 ft<sup>2</sup> of pine BA on 4.78 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 861.16 ft<sup>2</sup> of pine BA on 24.74 acres of suitable habitat, 254.34 ft<sup>2</sup> of pine BA on 6.36 acres of potentially suitable habitat and 1,726.94 ft<sup>2</sup> of pine BA on 134.06 acres of future potential habitat. This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 37.04% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 2,842.44 ft<sup>2</sup> of pine BA on 165.16 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition can meet the RS in the future (Table 3-14).

**FB Cluster O03-05:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and had 10 cavity trees in various stages of completion and suitability (Appendix G). The Repair of Existing Training Roads (Phase I) (PN 65557) will impact 2 cavity trees within 50 feet and 7 cavity trees within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 6,474.35 ft<sup>2</sup> of pine BA on 152.93 acres of suitable habitat, 1,676.66 ft<sup>2</sup> of pine BA on 43.54 acres of potentially suitable habitat and 570.39 ft<sup>2</sup> of pine BA on 71.71 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 3,179.14 ft<sup>2</sup> of pine BA on 69.35 acres of suitable habitat and 5,542.26 ft<sup>2</sup> of pine BA on 198.83 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 756.92 ft<sup>2</sup> of pine BA on 25.70 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 5,979.87 ft<sup>2</sup> of pine BA on 140.19 acres of suitable habitat, 1,481.92 ft<sup>2</sup> of pine BA on 38.61 acres of potentially suitable habitat and 502.69 ft<sup>2</sup> of pine BA on 63.68 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 25.49% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 2,938.48 ft<sup>2</sup> of pine BA on 63.25 acres of suitable habitat and 5,026.00 ft<sup>2</sup> of pine BA on 179.23 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster O03-06R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 5 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 4,283.33 ft<sup>2</sup> of pine BA on 122.32 acres of suitable habitat and 3,469.15 ft<sup>2</sup> of pine BA on 143.78 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 7,752.48 ft<sup>2</sup> of pine BA on 266.10 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2009 Northern Training Area Infrastructure Tank Trail Construction and Upgrade (PN 69742) will remove 1,006.11 ft<sup>2</sup> pine BA on 31.32 acres. The 2009 Support Staging Area (PN 69742) will remove 113.48 ft<sup>2</sup> pine BA on 3.71 acres (Table 3-5 and Figure 3-4).

The post- project SMS foraging habitat totals were 3,519.34 ft<sup>2</sup> of pine on 99.98 acres of suitable habitat and 3,113.55 ft<sup>2</sup> of pine BA on 131.09 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 34.61% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 6,632.89 ft<sup>2</sup> of pine BA on 231.07 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster O03-07:** This cluster had a PBG from 2006 to 2008 (Table 3-4); it contained 5 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 5,086.28 ft<sup>2</sup> of pine BA on 122.38 acres of suitable habitat and 507.19 ft<sup>2</sup> of pine BA on 56.01 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 5,593.47 ft<sup>2</sup> of pine BA on 178.39 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 415.76 ft<sup>2</sup> of pine BA on 10.79 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 4,670.52 ft<sup>2</sup> of pine BA on 111.96 acres of suitable habitat and 507.19 ft<sup>2</sup> of pine BA on 55.64 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will not be taken at the cluster level (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 44.59% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 5,177.71 ft<sup>2</sup> of pine BA on 167.60 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

This cluster is a SRC and is therefore included in the Incidental Take Statement in the RCW ESMP BO due to training impacts; however, this “take” does not cover project impacts (USFWS 2002).

**FB Cluster O04-01:** This cluster had a PBG in 2004, 2006, 2007 and 2008 and was captured by O04-03b in 2005 (Table 3-4). It had 7 cavity trees in various stages of completion and suitability (Appendix G). The Repair of Existing Training Roads (Phase I) (PN 65557) will impact 1 cavity tree within 50 feet, 3 cavity trees within 51 to 200 feet and will remove 1 inactive insert cavity tree and 1 active cavity (Table 3-9). This will result in “take” of the cluster from loss of cavity trees (Tables 3-11).

The pre- project SMS foraging habitat total was 1,778.52 ft<sup>2</sup> of pine BA on 73.17 acres of future potential habitat (Table 3-2). There was no suitable or potentially suitable habitat.

The pre- project RS foraging habitat totals were 1,778.52 ft<sup>2</sup> of pine BA on 73.17 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 355.84 ft<sup>2</sup> of pine BA on 14.67 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat total was 1,422.68 ft<sup>2</sup> of pine BA on 58.50 acres of future potential habitat (Table 3-2). There was no suitable or potentially suitable habitat. This cluster will also be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,422.68 ft<sup>2</sup> of pine BA on 58.50 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster O04-03a:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 10 cavity trees in various stages of completion and suitability (Appendix G). The Repair of Existing Training Roads (Phase I) (PN 65557) will impact 3 cavity trees within 50 feet (Table 3-9).

The pre- project SMS foraging habitat total was 1,627.87 ft<sup>2</sup> of pine BA on 75.69 acres of future potential habitat (Table 3-2). There was no suitable or potentially suitable habitat.

The pre- project RS foraging habitat totals were 1,627.87 ft<sup>2</sup> of pine BA on 75.69 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 47.52 ft<sup>2</sup> of pine BA on 2.21 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat total was 1,580.35 ft<sup>2</sup> of pine BA on 73.48 acres of future potential habitat (Table 3-2). There was no suitable or potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 0.00% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,580.35 ft<sup>2</sup> of pine BA on 73.48 acres of future potential habitat. (Table 3-3) There was no suitable or potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster O04-03b:** This cluster had a PBG from 2005 to 2008 (Table 3-4) and had 5 cavity trees in various stages of completion and suitability (Appendix G). The Repair of Existing Training Roads (Phase I) (PN 65557) will impact 2 cavity trees within 50 feet and remove 2 active cavity trees and 1 inactive start tree, resulting in “take” of the cluster from loss of cavity trees (Tables 3-9 and 3-11).

The pre- project SMS foraging habitat totals were 1,262.54 ft<sup>2</sup> of pine BA on 26.18 acres of suitable habitat and 800.44 ft<sup>2</sup> of pine BA on 56.21 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 627.45 ft<sup>2</sup> of pine BA on 13.35 acres of suitable habitat and 2,132.56 ft<sup>2</sup> of pine BA on 105.38 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

Under the SMS, the 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 327.24 ft<sup>2</sup> of pine BA on 11.52 acres (Table 3-6 and Figure 3-4).

Under the RSG, the 2009 Northern Training Area Infrastructure Project (PN 69742) will remove 117.80 ft<sup>2</sup> of pine BA on 3.88 acres. The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 401.95 ft<sup>2</sup> of pine BA on 15.23 acres (Table 3-3 and Figure 3-10).

The post- project SMS foraging habitat totals were 1,057.15 ft<sup>2</sup> of pine BA on 21.81 acres of suitable habitat and 678.59 ft<sup>2</sup> of pine BA on 49.06 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 5.41% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 422.06 ft<sup>2</sup> of pine BA on 8.98 acres of suitable habitat and 1,818.20 ft<sup>2</sup> of pine BA on 90.64 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster O05-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 14 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 11,209.36 ft<sup>2</sup> of pine BA on 220.28 acres of suitable habitat, 671.22 ft<sup>2</sup> of pine BA on 8.60 acres of potentially suitable habitat and 620.57 ft<sup>2</sup> of pine BA on 46.87 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 660.92 ft<sup>2</sup> of pine BA on 13.36 acres of suitable habitat, 6,677.13 ft<sup>2</sup> of pine BA on 130.79 acres of potentially suitable habitat and 5,163.10 ft<sup>2</sup> of pine BA on 131.60 acres of future potential habitat (Table 3-3).

The 2009 Construction Limits for Modified Record Fire Range (MRF1) (PN 65043) will remove 36.34 ft<sup>2</sup> pine BA on 0.71 acre. The 2009 Modified Fire Range (MRF7) (PN 65049) will remove 36.19 ft<sup>2</sup> of pine BA on 0.76 acre. The MRF7 construction limits will remove 488.31 ft<sup>2</sup> of pine BA on 8.92 acres. The MRF7 access road will remove 109.05 ft<sup>2</sup> of pine BA on 2.29 acres. The 2009 Construct Training Area Roads Project (PN 65554) will remove 351.64 ft<sup>2</sup> pine BA on 7.10 acres (Table 3-5 and Figure 3-6). The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 388.99 ft<sup>2</sup> pine BA on 9.16 acres (Table 3-6 and Figure 3-6).

The post- project SMS foraging habitat totals were 10,093.70 ft<sup>2</sup> of pine BA on 197.28 acres of suitable habitat, 515.36 ft<sup>2</sup> of pine BA on 6.85 acres of potentially suitable habitat and 481.57 ft<sup>2</sup> of pine BA on 42.68 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10).

Loblolly pine that is at high risk of decline accounts for 23.72% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 539.22 ft<sup>2</sup> of pine BA on 10.90 acres of suitable habitat, 6,390.80 ft<sup>2</sup> of pine BA on 125.11 acres of potentially suitable habitat and 4,160.61 ft<sup>2</sup> of pine BA on 110.80 acres of future potential habitat (Table 3-3). This partition meets the RS (Table 3-15).

**FB Cluster O05-02:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and had 7 cavity trees in various stages of completion and suitability (Appendix G). The Repair of Existing Training Roads (Phase I) (PN 65557) will impact 5 cavity trees within 51 to 200 feet and remove 1 inactive cavity tree (Table 3-9).

The pre- project SMS foraging habitat totals were 3,884.27 ft<sup>2</sup> of pine BA on 92.95 acres of suitable habitat, 468.35 ft<sup>2</sup> of pine BA on 10.36 acres of potentially suitable habitat and 813.56 ft<sup>2</sup> of pine BA on 31.46 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 543.72 ft<sup>2</sup> of pine BA on 10.99 acres of suitable habitat and 4,622.46 ft<sup>2</sup> of pine BA on 123.78 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Basic 10M-25M Firing Range (Z2) (PN 65036) construction limits will remove 149.46 ft<sup>2</sup> pine BA on 4.29 acres. The Z2 access road will remove 234.63 ft<sup>2</sup> pine BA on 5.24 acres. The 2009 MRF7 (PN 65049) will remove 614.72 ft<sup>2</sup> of pine BA on 16.78 acres. The MRF7 construction limits will remove 587.11 ft<sup>2</sup> of pine BA on 12.83 acres (Table 3-5 and Figure 3-6). The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 258.37 ft<sup>2</sup> of pine BA on 6.72 acres (Table 3-6 and Figure 3-6). The 2011 Z2 beaten area will remove 291.19 ft<sup>2</sup> of pine BA on 10.04 acres. The 2011 MRF7 beaten area will remove 401.43 ft<sup>2</sup> of pine BA on 10.12 acres (Table 3-7 and Figure 3-6). As a result of project impacts, 104.37 ft<sup>2</sup> of pine BA on 3.29 acres will become non-contiguous and cannot be counted towards the available foraging habitat for the partition (Table 3-2).

The post- project SMS foraging habitat totals were 2,524.91 ft<sup>2</sup> of pine BA on 61.60 acres of suitable habitat and 0.00 ft<sup>2</sup> of pine BA on 3.86 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high

risk of decline accounts for 3.04% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 488.30 ft<sup>2</sup> of pine BA on 9.87 acres of suitable habitat and 2,036.60 ft<sup>2</sup> of pine BA on 55.59 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition cannot meet RS in the future (Table 3-14).

**FB Cluster O05-03R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 6 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 7,748.62 ft<sup>2</sup> of pine BA on 181.66 acres of suitable habitat, 471.90 ft<sup>2</sup> of pine BA on 11.91 acres of potentially suitable habitat and 804.24 ft<sup>2</sup> of pine BA on 44.45 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 3,495.36 ft<sup>2</sup> of pine BA on 72.82 acres of suitable habitat and 5,529.40 ft<sup>2</sup> of pine BA on 165.20 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Basic 10M-25M Firing Range (Z1) (PN 65035) will remove 17.22 ft<sup>2</sup> of pine BA on 0.50 acre. The Z1 construction limits will remove 128.01 ft<sup>2</sup> of pine BA on 3.60 acres. The 2009 MRF1 (PN 65043) will remove 0.00 ft<sup>2</sup> of pine BA on 1.62 acres. The MRF1 construction limits will remove 224.10 ft<sup>2</sup> of pine BA on 11.19 acres (Table 3-5 and Figure 3-6). The 2011 Z1 beaten area will remove 48.97 ft<sup>2</sup> of pine BA on 1.18 acre. The 2011 Z2 beaten area will remove 54.96 ft<sup>2</sup> of pine BA on 4.44 acres. The 2011 MRF1 beaten area will remove 723.25 ft<sup>2</sup> of pine BA on 17.88 acres. The 2011 MRF7 beaten area will remove 538.88 ft<sup>2</sup> of pine BA on 15.50 acres (Table 3-7 and Figure 3-6).

The post- project SMS foraging habitat totals were 6,654.37 ft<sup>2</sup> of pine BA on 154.70 acres of suitable habitat, 84.42 ft<sup>2</sup> of pine BA on 2.43 acres of potentially suitable habitat and 550.58 ft<sup>2</sup> of pine BA on 24.98 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 20.41% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 3,492.96 ft<sup>2</sup> of pine BA on 72.77 acres of suitable habitat and 3,796.41 ft<sup>2</sup> of pine BA on 109.34 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster O07-01R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 8 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 5,676.85 ft<sup>2</sup> of pine BA on 131.74 acres of potentially suitable habitat and 1,157.39 ft<sup>2</sup> of pine BA on 96.33 acres of future potential habitat (Table 3-2). There was no suitable habitat.

The pre- project RS foraging habitat totals were 6,834.24 ft<sup>2</sup> of pine BA on 228.07 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2009 Fire and Movement Range (FM2) (PN 65033) will remove 210.90 ft<sup>2</sup> of pine BA on 8.19 acres. The FM2 construction limits will remove 564.70 ft<sup>2</sup> of pine BA on 26.58 acres. The FM2 access road will remove 516.06 ft<sup>2</sup> of pine BA on 12.58 acres (Table 3-5 and Figure 3-6). The 2011 FM2 beaten area will remove 79.52 ft<sup>2</sup> of pine BA on 2.79 acres (Table 3-7 and Figure 3-6).

The post- project SMS foraging habitat totals were 5,159.54 ft<sup>2</sup> of pine BA on 119.61 acres of potentially suitable habitat and 303.52 ft<sup>2</sup> of pine BA on 58.32 acres of future potential habitat (Table 3-2). There was no suitable habitat. This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 66.96% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 5,463.06 ft<sup>2</sup> of pine BA on 177.93 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This cluster can meet the RS in the future (Table 3-15).

This partition will be taken at the group level due to the decrease in cluster density within 1.25 miles of its cluster center (Tables 3-11, 3-16 and Figure 3-10).

**FB Cluster O07-03R:** This cluster was inactive in 2006 and had a PBG in 2004, 2005, 2007 and 2008 (Table 3-4). It had 4 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 2,900.77 ft<sup>2</sup> of pine BA on 73.17 acres of suitable habitat, 2,464.09 ft<sup>2</sup> of pine BA on 75.33 acres of potentially suitable habitat and 4,581.38 ft<sup>2</sup> of pine BA on 197.63 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 0.40 ft<sup>2</sup> of pine BA on 0.01 acre and 9,945.84 ft<sup>2</sup> of pine BA on 346.12 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Construct Training Area Roads Project (PN 65554) will remove 582.20 ft<sup>2</sup> of pine BA on 20.17 acres (Table 3-5 and Figure 3-4).

The post- project SMS foraging habitat totals were 2,551.14 ft<sup>2</sup> of pine BA on 63.83 acres of suitable habitat, 2,464.09 ft<sup>2</sup> of pine BA on 75.33 acres of potentially suitable habitat and 4,348.81 ft<sup>2</sup> of pine BA on 186.80 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 84.77% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 0.40 ft<sup>2</sup> of pine BA on 0.01 acre and 9,363.64 ft<sup>2</sup> of pine BA on 325.95 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

This partition will be taken at the group level due to the decrease in cluster density within 1.25 miles of its cluster center (Tables 3-11, 3-16 and Figure 3-10).

**FB Cluster O08-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 13 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 412.93 ft<sup>2</sup> of pine BA on 13.06 acres of suitable habitat, 876.00 ft<sup>2</sup> of pine BA on 23.36 acres of potentially suitable habitat and 3,799.26 ft<sup>2</sup> of pine BA on 192.50 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 5,088.19 ft<sup>2</sup> of pine BA on 228.92 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2009 Construct Training Area Roads Project (PN 65554) will remove 321.96 ft<sup>2</sup> of pine BA on 12.67 acres (Table 3-5 and Figure 3-4). The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 136.14 ft<sup>2</sup> of pine BA on 6.79 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 316.36 ft<sup>2</sup> of pine BA on 10.01 acres of suitable habitat, 745.50 ft<sup>2</sup> of pine BA on 19.88 acres of potentially suitable habitat and 3,568.23 ft<sup>2</sup> of pine BA on 179.57 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 49.98% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 4,630.09 ft<sup>2</sup> of pine BA on 209.46 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition can meet the RS in the future (Table 3-14).

**FB Cluster O08-02:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and had 8 cavity trees in various stages of completion and suitability (Appendix G). The 2009 Construct Training Area Roads Project (PN 65554) will impact 2 cavity trees within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 1,800.51 ft<sup>2</sup> of pine BA on 43.69 acres of suitable habitat, 1,268.46 ft<sup>2</sup> of pine BA on 34.00 acres of potentially suitable habitat and 4,127.10 ft<sup>2</sup> of pine BA on 199.56 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 925.38 ft<sup>2</sup> of pine BA on 19.08 acres of potentially suitable habitat and 6,270.69 ft<sup>2</sup> of pine BA on 258.17 acres of future potential habitat (Table 3-3). There was no suitable habitat.

The 2009 Construct Training Area Roads Project (PN 65554) will remove 516.85 ft<sup>2</sup> of pine BA on 17.80 acres (Table 3-5 and Figure 3-4).

The post- project SMS foraging habitat totals were 1,668.94 ft<sup>2</sup> of pine BA on 39.99 acres of suitable habitat, 1,268.46 ft<sup>2</sup> of pine BA on 34.00 acres of potentially suitable habitat and 3,741.82 ft<sup>2</sup> of pine BA on 185.46 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 43.98% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 925.38 ft<sup>2</sup> of pine BA on 19.08 acres of potentially suitable habitat and 5,753.84 ft<sup>2</sup> of pine BA on 240.37 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition can meet the RS in the future (Table 3-14).

**FB Cluster O09-02:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and had 9 cavity trees in various stages of completion and suitability (Appendix G). The construction of the Stationary Tank Range (ST2) (PN 65383) and beaten area will impact 2 cavity trees within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 3,003.15 ft<sup>2</sup> of pine BA on 68.56 acres of suitable habitat, 400.89 ft<sup>2</sup> of pine BA on 8.58 acres of potentially suitable habitat and 2,906.97 ft<sup>2</sup> of pine BA on 116.17 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 2,111.69 ft<sup>2</sup> of pine BA on 43.54 acres of potentially suitable habitat and 4,199.32 ft<sup>2</sup> of pine BA on 149.77 acres of future potential habitat (Table 3-3). There was no suitable habitat.

The 2009 ST2 (PN 65383) will remove 783.52 ft<sup>2</sup> of pine BA on 30.40 acres. The ST2 construction limits will remove 316.63 ft<sup>2</sup> of pine BA on 12.65 acres (Table 3-5 and Figure 3-4). The 2011 ST2 beaten area will remove 25.65 ft<sup>2</sup> of pine BA on 1.35 acre (Table 3-7 and Figure 3-4).

The post- project SMS foraging habitat totals were 3,003.15 ft<sup>2</sup> of pine BA on 68.56 acres of suitable habitat, 400.89 ft<sup>2</sup> of pine BA on 8.58 acres of potentially suitable habitat and 1,781.17 ft<sup>2</sup> of pine BA on 71.77 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 18.65% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 2,111.69 ft<sup>2</sup> of pine BA on 43.54 acres of potentially suitable habitat and 3,073.52 ft<sup>2</sup> of pine BA on 105.37 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition may meet the RS in the future (Table 3-15).

This partition will be taken at the group level due to the decrease in cluster density within 1.25 miles of its cluster center (Tables 3-11, 3-16 and Figure 3-10).

**FB Cluster O10-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 9 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 1,406.60 ft<sup>2</sup> of pine BA on 43.28 acres of suitable habitat, 2,590.59 ft<sup>2</sup> of pine BA on 69.18 acres of potentially suitable habitat and 1,242.64 ft<sup>2</sup> of pine BA on 117.33 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 5,239.83 ft<sup>2</sup> of pine BA on 229.79 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2009 Construct Training Area Roads Project (PN 65554) will remove 314.35 ft<sup>2</sup> of pine BA on 13.36 acres (Table 3-5 and Figure 3-4). The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 288.37 ft<sup>2</sup> of pine BA on 8.70 acres (Table 3-6 and Figure 3-4). As a result of project impacts, 4.93 ft<sup>2</sup> of pine BA on 0.17 acre will be non-contiguous and cannot be counted towards the available foraging habitat for the partition (Table 3-2).

The post- project SMS foraging habitat totals were 1,406.60 ft<sup>2</sup> of pine BA on 43.28 acres of suitable habitat, 2,106.83 ft<sup>2</sup> of pine BA on 56.98 acres of potentially suitable habitat and 1,118.75 ft<sup>2</sup> of pine BA on 107.30 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 66.03% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 4,632.18 ft<sup>2</sup> of pine BA on 207.56 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster O10-02:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 14 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 2,369.23 ft<sup>2</sup> of pine BA on 72.26 acres of suitable habitat, 79.58 ft<sup>2</sup> of pine BA on 2.52 acres of potentially suitable habitat and 994.28 ft<sup>2</sup> of pine BA on 142.66 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 3,974.72 ft<sup>2</sup> of pine BA on 233.54 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2009 ST2 (PN 65383) will remove 39.85 ft<sup>2</sup> of pine BA on 1.32 acre. The ST2 construction limits will remove 55.08 ft<sup>2</sup> of pine BA on 1.82 acre. The 2009 Construct Training Area Roads Project (PN 65554) will remove 231.53 ft<sup>2</sup> of pine BA on 8.11 acres (Table 3-5 and Figure 3-4).

The post- project SMS foraging habitat totals were 2,250.03 ft<sup>2</sup> of pine BA on 69.28 acres of suitable habitat, 13.26 ft<sup>2</sup> of pine BA on 0.42 acre of potentially suitable habitat and 853.34 ft<sup>2</sup> of pine BA on 136.49 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 62.88% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 3,648.26 ft<sup>2</sup> of pine BA on 222.29 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition can meet the RS in the future (Table 3-14).

**FB Cluster O10-03:** This cluster had a PBG from 2005 to 2007; in 2004 and 2008, it was captured by O13-01 (Table 3-4). It contained 6 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 192.50 ft<sup>2</sup> of pine BA on 5.00 acres of suitable habitat, 3,666.92 ft<sup>2</sup> of pine BA on 106.93 acres of potentially suitable habitat and 539.68 ft<sup>2</sup> of pine BA on 28.66 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 120.15 ft<sup>2</sup> of pine BA on 2.67 acres of potentially suitable habitat and 4,278.95 ft<sup>2</sup> of pine BA on 137.92 acres of future potential habitat (Table 3-3). There was no suitable habitat.

The 2009 Construct Training Area Roads Project (PN 65554) will remove 328.75 ft<sup>2</sup> of pine BA on 11.65 acres (Table 3-5 and Figure 3-4). The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 111.40 ft<sup>2</sup> of pine BA on 3.10 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 118.96 ft<sup>2</sup> of pine BA on 3.09 acres of suitable habitat, 3,375.69 ft<sup>2</sup> of pine BA on 98.33 acres of potentially suitable habitat and 464.30 ft<sup>2</sup> of pine BA on 24.42 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 52.82% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 120.15 ft<sup>2</sup> of pine BA on 2.67 acres of potentially suitable habitat and 3,838.80 ft<sup>2</sup> of pine BA on 123.17 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition may meet the RS in the future (Table 3-15).

This cluster is currently monitored as a minimization effort for the DMPRC (FBCB, unpub. data).

**FB Cluster O10-04:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 9 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat total was 4,657.54 ft<sup>2</sup> of pine BA on 139.26 acres of potentially suitable habitat and 79.67 ft<sup>2</sup> of pine BA on 25.05 acres of future potential habitat (Table 3-2). There was no suitable habitat.

The pre- project RS foraging habitat totals were 4,737.21 ft<sup>2</sup> of pine BA on 164.31 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 429.16 ft<sup>2</sup> of pine BA on 15.54 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat total was 4,228.38 ft<sup>2</sup> of pine BA on 126.78 acres of potentially suitable habitat and 79.67 ft<sup>2</sup> of pine BA on 21.99 acres of future potential habitat (Table 3-2). There was no suitable habitat. This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 64.73% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 4,308.05 ft<sup>2</sup> of pine BA on 148.77 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition may meet the RS in the future (Table 3-15).

**FB Cluster O11-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 15 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 3,376.17 ft<sup>2</sup> of pine BA on 57.56 acres of suitable habitat, 871.91 ft<sup>2</sup> of pine BA on 22.28 acres of potentially suitable habitat and 1,269.31 ft<sup>2</sup> of pine BA on 70.47 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 1,648.92 ft<sup>2</sup> of pine BA on 19.63 acres of suitable habitat, 607.36 ft<sup>2</sup> of pine BA on 9.11 acres of potentially suitable habitat and 3,740.38 ft<sup>2</sup> of pine BA on 134.78 acres of future potential habitat (Table 3-3).

Under the SMS, the 2009 Northern Training Area Infrastructure (PN 69742) will remove 222.46 ft<sup>2</sup> of pine BA on 13.63 acres (Table 3-5 and Figure 3-4). The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 3.08 ft<sup>2</sup> pine BA on 0.11 acre (Table 3-6 and Figure 3-4).

Under the RSG, the 2009 Northern Training Area Infrastructure (PN 69742) would remove 296.78 ft<sup>2</sup> of pine BA on 15.30 acres (Table 3-3 and Figure 3-4). The 2010 Repair Existing Training Area Roads Project (PN 65557) would remove 3.08 ft<sup>2</sup> pine BA on 0.11 acre (Table 3-3 and Figure 3-4).

The post- project SMS foraging habitat totals were 3,231.63 ft<sup>2</sup> of pine BA on 54.18 acres of suitable habitat, 800.99 ft<sup>2</sup> of pine BA on 20.82 acres of potentially suitable habitat and 1,259.23 ft<sup>2</sup> of pine BA on 61.57 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 25.65% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,648.92 ft<sup>2</sup> of pine BA on 19.63 acres of suitable habitat, 542.02 ft<sup>2</sup> of pine BA on 8.13 acres of potentially suitable habitat and 3,505.86 ft<sup>2</sup> of pine BA on 120.35 acres of future potential habitat (Table 3-3). This partition may meet the RS in the future (Table 3-15).

**FB Cluster O11-02R:** This cluster was inactive from 2004 to 2007 but had a PBG in 2008 (Table 3-4). It contained 4 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 3,000.45 ft<sup>2</sup> of pine BA on 71.50 acres of suitable habitat and 269.54 ft<sup>2</sup> of pine BA on 19.83 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 1,231.20 ft<sup>2</sup> of pine BA on 25.65 acres of suitable habitat and 2,038.79 ft<sup>2</sup> of pine BA on 65.68 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Northern Training Area Infrastructure (PN 69742) will remove 593.01 ft<sup>2</sup> of pine BA on 14.93 acres (Table 3-5 and Figure 3-4).

The post- project SMS foraging habitat totals were 2,437.02 ft<sup>2</sup> of pine BA on 57.73 acres of suitable habitat and 239.96 ft<sup>2</sup> of pine BA on 18.67 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 11.69% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,113.12 ft<sup>2</sup> of pine BA on 23.19 acres of suitable habitat and 1,563.86 ft<sup>2</sup> of pine BA on 53.21 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition would not meet the RS in the future (Table 3-14).

**FB Cluster O13-01:** This cluster had a PBG in 2004, 2006, 2007 and 2008; it was inactive in 2005 (Table 3-4). It had 12 cavity trees in various stages of completion and suitability (Appendix G). The Repair of Existing Training Area Roads (Phase 1) (PN 65557) will impact 1 cavity tree within 50 feet, 4 cavity trees within 51 to 200 feet and will remove 1 inactive start tree (Table 3-9).

The pre- project SMS foraging habitat totals were 919.27 ft<sup>2</sup> of pine BA on 23.88 acres of suitable habitat, 1,342.12 ft<sup>2</sup> of pine BA on 36.31 acres of potentially suitable habitat and 1,171.03 ft<sup>2</sup> of pine BA on 56.29 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 3,432.42 ft<sup>2</sup> of pine BA on 116.48 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 154.10 ft<sup>2</sup> of pine BA on 8.44 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 860.36 ft<sup>2</sup> of pine BA on 22.35 acres of suitable habitat, 1,332.73 ft<sup>2</sup> of pine BA on 36.03 acres of potentially suitable habitat and 1,085.23 ft<sup>2</sup> of pine BA on 49.66 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 69.73% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 3,278.32 ft<sup>2</sup> of pine BA on 108.04 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

This cluster is currently monitored as a minimization effort for the DMPRC (FBCB, unpub. data).

**FB Cluster O13-06R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 10 cavity trees in various stages of completion and suitability (Appendix G). The Construction of Paved Training Area Roads (PN 65554) will impact 1 cavity tree within 50 feet and 1 cavity tree within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 2,636.57 ft<sup>2</sup> of pine BA on 70.05 acres of suitable habitat, 161.32 ft<sup>2</sup> of pine BA on 4.36 acres of potentially suitable habitat and 3,048.29 ft<sup>2</sup> of pine BA on 140.65 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 5,846.18 ft<sup>2</sup> of pine BA on 215.06 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2009 Construct Training Area Roads Project (PN 65554) will remove 514.98 ft<sup>2</sup> of pine BA on 18.43 acres (Table 3-5 and Figure 3-4).

The post- project SMS foraging habitat totals were 2,363.07 ft<sup>2</sup> of pine BA on 62.70 acres of suitable habitat, 161.32 ft<sup>2</sup> of pine BA on 4.36 acres of potentially suitable habitat and 2,806.81 ft<sup>2</sup> of pine BA on 129.57 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies

(Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 61.38% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 5,331.20 ft<sup>2</sup> of pine BA on 196.63 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition can meet the RS in the future (Table 3-14).

**FB Cluster O14-03R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 11 cavity trees in various stages of completion and suitability (Appendix G). The Repair of Existing Training Roads (Phase 1) (PN 65557) will impact 1 cavity tree within 50 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 6,662.22 ft<sup>2</sup> of pine BA on 155.48 acres of suitable habitat and 960.12 ft<sup>2</sup> of pine BA on 88.73 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 2,172.93 ft<sup>2</sup> of pine BA on 49.20 acres of suitable habitat, 597.43 ft<sup>2</sup> of pine BA on 10.39 acres of potentially suitable habitat and 4,851.98 ft<sup>2</sup> of pine BA on 184.62 acres of future potential habitat (Table 3-3).

The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 161.93 ft<sup>2</sup> of pine BA on 4.08 acres (Table 3-6 and Figure 3-4).

The post- project SMS foraging habitat totals were 6,517.52 ft<sup>2</sup> of pine BA on 152.28 acres of suitable habitat and 942.89 ft<sup>2</sup> of pine BA on 87.85 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 49.61% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 2,099.03 ft<sup>2</sup> of pine BA on 47.61 acres of suitable habitat, 597.43 ft<sup>2</sup> of pine BA on 10.39 acres of potentially suitable habitat and 4,763.95 ft<sup>2</sup> of pine BA on 182.13 acres of future potential habitat (Table 3-3). This partition can meet the RS in the future (Table 3-15).

This cluster was created on Fort Benning as compensation for the Incidental Take of Cluster N02-01 during the land exchange (see Sections 2.7.8 and 2.7.11) (JCA 2000).

**FB Cluster O15-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4). It had 11 cavity trees in various stages of completion and suitability (Appendix G). Construction of the Northern Training Area Infrastructure (PN 69742) will impact 1 cavity tree within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 1,209.95 ft<sup>2</sup> of pine BA on 33.21 acres of suitable habitat and 1,417.31 ft<sup>2</sup> of pine BA on 79.97 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 2,627.26 ft<sup>2</sup> of pine BA on 113.18 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2009 Northern Training Area Infrastructure (PN 69742) will remove 21.13 ft<sup>2</sup> of pine BA on 1.07 acres (Table 3-5 and Figure 3-4).

The post- project SMS foraging habitat totals were 1,209.95 ft<sup>2</sup> of pine BA on 33.21 acres of suitable habitat and 1,396.18 ft<sup>2</sup> of pine BA on 78.90 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 7.44% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 2,606.13 ft<sup>2</sup> of pine BA on 112.11 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster O15-03:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 11 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 2,506.61 ft<sup>2</sup> of pine BA on 67.91 acres of suitable habitat, 4.62 ft<sup>2</sup> of pine BA on 0.14 acre of potentially suitable habitat and 171.87 ft<sup>2</sup> of pine BA on 17.31 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 51.23 ft<sup>2</sup> of pine BA on 1.09 acres of suitable habitat and 2,631.87 ft<sup>2</sup> of pine BA on 84.27 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Northern Training Area Infrastructure (PN 69742) will remove 148.44 ft<sup>2</sup> of pine BA on 4.60 acres (Table 3-5 and Figure 3-4).

The post- project SMS foraging habitat totals were 2,403.31 ft<sup>2</sup> of pine BA on 65.08 acres of suitable habitat, 4.62 ft<sup>2</sup> of pine BA on 0.14 acre of potentially suitable habitat and 126.73 ft<sup>2</sup> of pine BA on 15.54 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-10). Loblolly pine that is at high risk of decline accounts for 37.61% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 13.16 ft<sup>2</sup> of pine BA on 0.28 acre of suitable habitat and 2,521.50 ft<sup>2</sup> of pine BA on 80.48 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster Q02-02:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 11 cavity trees in various stages of completion and suitability (Appendix G). The Alternate 19D/K OSUT Training Area (PN 69741) will impact 3 cavity trees within 51 to 200 feet (Table 3-9).

The pre- project SMS foraging habitat totals were 2,369.62 ft<sup>2</sup> of pine BA on 62.88 acres of suitable habitat, 3,452.28 ft<sup>2</sup> of pine BA on 91.05 acres of potentially suitable habitat and 106.08 ft<sup>2</sup> of pine BA on 6.53 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 5,927.98 ft<sup>2</sup> of pine BA on 160.46 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2009 Good Hope Range Access Road (PN 69358) will remove 121.78 ft<sup>2</sup> of pine BA on 3.66 acres. The 2009 Alternate 19D/K OSUT Tank Trail Upgrade and Construction (PN 69741) will remove 1,769.56 ft<sup>2</sup> of pine BA on 48.35 acres (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 1,716.33 ft<sup>2</sup> of pine BA on 45.60 acres of suitable habitat, 2,214.23 ft<sup>2</sup> of pine BA on 58.13 acres of potentially suitable habitat and 106.08 ft<sup>2</sup> of pine BA on 4.72 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 56.07% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 4,036.64 ft<sup>2</sup> of pine BA on 108.45 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-15).

**FB Cluster Q02-03:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 10 cavity trees in various stages of completion and suitability (Appendix G). The Alternate 19D/K OSUT Training Area (PN 69741) will impact 2 cavity trees within 50 feet, 4 cavity trees within 51 to 200 feet and will remove 2 active cavity trees and 1 inactive start tree (Table 3-9). These impacts and removals will likely result in “take” of the cluster by harassment (Table 3-11).

The pre- project SMS foraging habitat totals were 3,406.34 ft<sup>2</sup> of pine BA on 81.90 acres of suitable habitat, 6,391.18 ft<sup>2</sup> of pine BA on 139.99 acres of potentially suitable habitat and 136.59 ft<sup>2</sup> of pine BA on 20.04 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 9,934.11 ft<sup>2</sup> of pine BA on 241.93 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2009 Alternate 19D/K OSUT Training Area (PN 69741) will remove 3,765.43 ft<sup>2</sup> of pine BA on 93.28 acres (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 2,268.82 ft<sup>2</sup> of pine BA on 55.11 acres of suitable habitat, 3,839.62 ft<sup>2</sup> of pine BA on 87.12 acres of potentially suitable habitat and 60.24 ft<sup>2</sup> of pine BA on 6.42 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 47.67% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 6,168.68 ft<sup>2</sup> of pine BA on 148.65 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition may meet the RS in the future (Table 3-15).

**FB Cluster Q02-04R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 6 cavity trees in various stages of completion and suitability (Appendix G). The Alternate 19D/K OSUT Training Area (PN 69741) will impact 1 cavity tree within 50 feet, 3 cavity trees within 51 to 200 feet and will remove 1 active start tree (Table 3-9).

The pre- project SMS foraging habitat totals were 3,215.34 ft<sup>2</sup> of pine BA on 90.86 acres of suitable habitat, 2,023.83 ft<sup>2</sup> of pine BA on 45.58 acres of potentially suitable habitat and 108.60 ft<sup>2</sup> of pine BA on 79.50 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 5,347.77 ft<sup>2</sup> of pine BA on 215.94 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2009 Alternate 19D/K OSUT Training Area (PN 69741) will remove 2,373.22 ft<sup>2</sup> of pine BA on 99.85 acres. The 2009 Good Hope Maneuver Heavy Use Area (PN 69668) will remove 265.46 ft<sup>2</sup> of pine BA on 6.14 acres. The Good Hope Training Area Infrastructure will remove 215.74 ft<sup>2</sup> of pine BA on 5.35 acres (Table 3-5 and Figure 3-3). As a result of project impacts, 1,198.08 ft<sup>2</sup> of pine BA on 35.06 acres will be non-contiguous and cannot be counted towards the available foraging habitat for the partition (Table 3-2).

The post- project SMS foraging habitat totals were 734.54 ft<sup>2</sup> of pine BA on 20.56 acres of suitable habitat, 534.53 ft<sup>2</sup> of pine BA on 12.74 acres of potentially suitable habitat and 26.20 ft<sup>2</sup> of pine BA on 36.24 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 81.98% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,295.27 ft<sup>2</sup> of pine BA on 69.54 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This partition cannot meet the RS in the future (Table 3-14).

**FB Cluster R02-01R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 6 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 3,588.13 ft<sup>2</sup> of pine BA on 89.70 acres of suitable habitat, 817.57 ft<sup>2</sup> of pine BA on 11.04 acres of potentially suitable habitat and 1,845.25 ft<sup>2</sup> of pine BA on 83.41 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 1,066.36 ft<sup>2</sup> of pine BA on 19.81 acres of suitable habitat, 926.72 ft<sup>2</sup> of pine BA on 15.25 acres of potentially suitable habitat and 4,257.87 ft<sup>2</sup> of pine BA on 149.09 acres of future potential habitat (Table 3-3).

The 2009 Infrastructure Support Project (PN 67457) will remove 189.16 ft<sup>2</sup> of pine BA on 3.91 acres. The 2009 Tracked Vehicle Drivers Course Access Road (PN 64797) will remove 172.38 ft<sup>2</sup> of pine BA on 6.11 acres. The 2009 Construct Training Area Roads Project (PN 65554) will remove 179.73 ft<sup>2</sup> of pine BA on 4.87 acres. The 2009 Vehicle Recovery Course (PN 72017) will remove 774.94 ft<sup>2</sup> of pine BA on 21.21 acres (Table 3-5 and Figure 3-3). As a result of project impacts, 364.11 ft<sup>2</sup> of pine BA on 13.74 acres will be non-contiguous and cannot be counted towards the available foraging habitat for the partition (Table 3-2).

The post- project SMS foraging habitat totals were 2,720.17 ft<sup>2</sup> of pine BA on 64.91 acres of suitable habitat, 560.90 ft<sup>2</sup> of pine BA on 7.49 acres of potentially suitable habitat and 1,289.56 ft<sup>2</sup> of pine BA on 61.91 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11, 3-12 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 20.22% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 995.63 ft<sup>2</sup> of pine BA on 18.58 acres of suitable habitat, 560.90 ft<sup>2</sup> of pine BA on 7.49 acres of potentially suitable habitat and 3,014.10 ft<sup>2</sup> of pine BA on 108.24 acres of future potential habitat (Table 3-3). This partition may meet the RS in the future (Table 3-14).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster S01-01:** This cluster had a PBG from 2004 to 2008 (Table 3-4). It contained 8 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 2,535.58 ft<sup>2</sup> of pine BA on 66.61 acres of suitable habitat and 2,318.25 ft<sup>2</sup> of pine BA on 60.62 acres of potentially suitable habitat (Table 3-2). There was no future potential habitat.

The pre- project RS foraging habitat totals were 186.18 ft<sup>2</sup> of pine BA on 3.48 acres of suitable habitat and 4,667.65 ft<sup>2</sup> of pine BA on 123.75 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Good Hope MTA Range Access Road (PN 69358) will remove 33.24 ft<sup>2</sup> of pine BA on 0.80 acre (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 2,502.34 ft<sup>2</sup> of pine BA on 65.81 acres of suitable habitat and 2,318.25 ft<sup>2</sup> of pine BA on 60.62 acres of potentially suitable habitat (Table 3-2). There was no future potential habitat. This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 33.41% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 177.62 ft<sup>2</sup> of pine BA on 3.32 acres of suitable habitat and 4,642.97 ft<sup>2</sup> of pine BA on 123.11 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat. This partition may meet the RS in the future (Table 3-15).

**FB Cluster S02-01R:** This cluster had a PBG from 2004 to 2008 (Table 3-4) and contained 13 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 5,794.52 ft<sup>2</sup> of pine BA on 117.81 acres of suitable habitat, 107.03 ft<sup>2</sup> of pine BA on 2.78 acres of potentially suitable habitat and 765.95 ft<sup>2</sup> of pine BA on 45.52 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 3,507.58 ft<sup>2</sup> of pine BA on 60.62 acres of suitable habitat and 3,159.92 ft<sup>2</sup> of pine BA on 105.49 acres of future potential habitat (Table 3-3). There was no potentially suitable habitat.

The 2009 Good Hope MTA Range Access Road (PN 69358) will remove 286.32 ft<sup>2</sup> of pine BA on 6.80 acres. The 2009 Infrastructure Support Project (PN 67457) will remove 13.86 ft<sup>2</sup> of pine BA on 0.99 acre (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 5,508.20 ft<sup>2</sup> of pine BA on 111.01 acres of suitable habitat, 107.03 ft<sup>2</sup> of pine BA on 2.78 acres of potentially suitable habitat and 752.09 ft<sup>2</sup> of pine BA on 44.53 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 35.21% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 3,507.58 ft<sup>2</sup> of pine BA on 60.62 acres of suitable habitat and 2,859.74 ft<sup>2</sup> of pine BA on 97.70 acres of future potential habitat (Table 3-

3). There was no potentially suitable habitat. This partition can meet the RS in the future (Table 3-15).

**FB Cluster S03-01R:** This cluster was inactive from 2005 to 2006 and had a PBG from 2007 to 2008 (Table 3-4). It had 4 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 78.47 ft<sup>2</sup> of pine BA on 1.18 acre of suitable habitat, 1,698.15 ft<sup>2</sup> of pine BA on 44.96 acres of potentially suitable habitat and 2,649.28 ft<sup>2</sup> of pine BA on 100.03 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 78.47 ft<sup>2</sup> of pine BA on 1.18 acre of suitable habitat, 179.74 ft<sup>2</sup> of pine BA on 4.18 acres of potentially suitable habitat and 4,167.69 ft<sup>2</sup> of pine BA on 140.81 acres of future potential habitat (Table 3-3).

The 2009 Infrastructure Support Project (PN 67457) will remove 51.60 ft<sup>2</sup> of pine BA on 1.20 acres (Table 3-5 and Figure 3-3). The 2010 Repair Existing Training Area Roads Project (PN 65557) will remove 124.28 ft<sup>2</sup> of pine BA on 4.02 acres (Table 3-6 and Figure 3-3).

The post- project SMS foraging habitat totals were 78.47 ft<sup>2</sup> of pine BA on 1.18 acre of suitable habitat, 1,606.99 ft<sup>2</sup> of pine BA on 42.84 acres of potentially suitable habitat and 2,564.56 ft<sup>2</sup> of pine BA on 96.93 acres of future potential habitat (Table 3-2). This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 33.37% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 78.47 ft<sup>2</sup> of pine BA on 1.18 acres of suitable habitat, 88.58 ft<sup>2</sup> of pine BA on 2.06 acres of potentially suitable habitat and 4,082.97 ft<sup>2</sup> of pine BA on 137.71 acres of future potential habitat (Table 3-3). This partition may meet the RS in the future (Table 3-14).

**FB Cluster SHC-02:** This cluster had a PBG from 2004 to 2006 and had a solitary male from 2007 to 2008. It had 7 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 1,106.07 ft<sup>2</sup> of pine BA on 26.49 acres of suitable habitat, 5,189.46 ft<sup>2</sup> of pine BA on 127.21 acres of potentially suitable habitat and 1,457.37 ft<sup>2</sup> of pine BA on 59.13 acres of future potential habitat (Table 3-2).

The pre- project RS foraging habitat totals were 1,564.34 ft<sup>2</sup> of pine BA on 36.38 acres of potentially suitable habitat and 6,188.56 ft<sup>2</sup> of pine BA on 176.45 acres of future potential habitat (Table 3-3). There was no suitable habitat.

The 2010 Classrooms with Dual BN Dining Facilities (GTA) (PN 69150) will remove 17.85 ft<sup>2</sup> of pine BA on 0.60 acre. The 2010 Classrooms with BN Dining Facilities (GTA) (PN 70027/72457) will remove 28.34 ft<sup>2</sup> of pine BA on 1.09 acre (Table 3-6 and Figure 3-3). The 2012 Sand Hill Recreation Centers (PN 65246) will remove 44.77 ft<sup>2</sup> of pine BA on 1.89 acre. The 2012 Training Barracks Complex (GTA) (PN 69745) will remove 2.21 ft<sup>2</sup> of pine BA on 0.07 acre (Table 3-8 and Figure 3-3).

The post- project SMS foraging habitat totals were 1,106.07 ft<sup>2</sup> of pine BA on 26.49 acres of suitable habitat, 5,173.06 ft<sup>2</sup> of pine BA on 126.69 acres of potentially suitable habitat and 1,380.60 ft<sup>2</sup> of pine BA on 56.00 acres of future potential habitat (Table 3-2). This cluster will not be taken at the cluster level due to loss of foraging habitat (Tables 3-2, 3-11 and Figure 3-12). Loblolly pine that is at high risk of decline accounts for 49.86% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 1,564.34 ft<sup>2</sup> of pine BA on 36.38 acres of potentially suitable habitat and 6,095.39 ft<sup>2</sup> of pine BA on 172.80 acres of future potential habitat (Table 3-3). There was no suitable habitat. This partition can meet the RS in the future (Table 3-15).

This partition will be taken at the group level due to the decrease in cluster density within 1.25 miles of its cluster center (Tables 3-11, 3-16 and Figure 3-9).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster T02-01:** This cluster was inactive from 2004 to 2005, had a solitary male in 2006 and had a PBG from 2007 to 2008 (Table 3-4). It had 4 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 1,068.36 ft<sup>2</sup> of pine BA on 29.27 acres of suitable habitat and 3,004.79 ft<sup>2</sup> of pine BA on 145.33 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat.

The pre- project RS foraging habitat totals were 4,073.15 ft<sup>2</sup> of pine BA on 174.60 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat.

The 2009 Construct Training Area Roads Project (PN 65554) will remove 200.17 ft<sup>2</sup> of pine BA on 6.65 acres (Table 3-5 and Figure 3-3).

The post- project SMS foraging habitat totals were 883.30 ft<sup>2</sup> of pine BA on 24.20 acres of suitable habitat and 2,989.68 ft<sup>2</sup> of pine BA on 143.75 acres of future potential habitat (Table 3-2). There was no potentially suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 96.45% of the SMS post- project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 3,872.98 ft<sup>2</sup> of pine BA on 167.95 acres of future potential habitat (Table 3-3). There was no suitable or potentially suitable habitat. This cluster can meet the RS in the future (Table 3-14).

This cluster was analyzed and “taken” by Transformation projects, but project impacts within this partition have been reanalyzed by MCOE Projects.

**FB Cluster T02-02R:** This cluster had a PBG from 2005 to 2008; it was captured by J02-02 in 2004 (Table 3-4). It had 9 cavity trees in various stages of completion and suitability (Appendix G). No cavity trees will be impacted or taken by Alternative B MCOE projects.

The pre- project SMS foraging habitat totals were 2,746.15 ft<sup>2</sup> of pine BA on 57.73 acres of potentially suitable habitat and 1,690.53 ft<sup>2</sup> of pine BA on 103.06 acres of future potential habitat (Table 3-2). There was no suitable habitat.

The pre- project RS foraging habitat totals were 2,494.80 ft<sup>2</sup> of pine BA on 50.40 acres of potentially suitable habitat and 1,941.88 ft<sup>2</sup> of pine BA on 110.39 acres of future potential habitat (Table 3-3). There was no suitable habitat.

The 2012 Rail Loading Facility Expansion (PN 62953) will remove 376.70 ft<sup>2</sup> of pine BA on 7.61 acres (Table 3-8 and Figure 3-3).

The post- project SMS foraging habitat totals were 2,369.45 ft<sup>2</sup> of pine BA on 50.12 acres of potentially suitable habitat and 1,690.53 ft<sup>2</sup> of pine BA on 103.06 acres of future potential habitat (Table 3-2). There was no suitable habitat. This cluster will be taken at the cluster level due to loss of foraging habitat and pre-project habitat deficiencies (Tables 3-2, 3-11, 3-12 and Figure 3-9). Loblolly pine that is at high risk of decline accounts for 80.82% of the SMS post-project suitable and potentially suitable acreage (Table 3-13).

The post- project RS foraging habitat totals were 2,118.10 ft<sup>2</sup> of pine BA on 42.79 acres of potentially suitable habitat and 1,941.88 ft<sup>2</sup> of pine BA on 110.39 acres of future potential habitat (Table 3-3). There was no suitable habitat. This cluster can meet the RS in the future (Table 3-14).

### **3.8.2 GROUP LEVEL ANALYSES**

The Group Level Analysis evaluates density effects to clusters directly impacted by the proposed Alternative B MCOE projects, but not “taken” at the cluster level. Eight clusters (A20-04, K11-02, K13-06, L02-02R, O07-01R, O07-03R, O09-02 and SHC-02) were considered “taken” due to project related group density reduction around the subject clusters (Tables 3-11, 3-16 and Figure 3-14).

A20-04. This cluster’s group density remained the same: 1 active cluster both pre- and post-project.

K11-02. This cluster’s group density will be reduced from 2 active clusters to 1 cluster within 1.25 mile.

K13-06. This cluster’s group density will be reduced from 3 active clusters to 1 cluster within 1.25 mile.

L02-02R. This cluster’s group density will be reduced from 2 active clusters to 1 cluster within 1.25 miles.

O07-01R. This cluster’s group density remained the same: 1 active cluster both pre- and post-project.

O07-03R. This cluster’s group density will be reduced from 2 active clusters to 1 cluster within 1.25 miles.

O09-02. This cluster’s group density will be reduced from 4 active clusters within 1.25 miles to 1 cluster within 1.25 miles.

Table 3-16. Pre- and post- project densities of red-cockaded woodpecker (RCW) clusters within 1.25 miles of clusters impacted by **Alternative B** MCOE projects, Fort Benning, Georgia.

Southern Ranges	Pre- Project		Post- Project		Cluster Level Take (Y/N)	Group Level Take (Y/N)
	# Active Clusters within 1.25 Miles	Density Rating	# Active Clusters within 1.25 Miles	Density Rating		
A14-03R	11	dense	4	moderate	Y	N/A
A17-01	14	dense	4	moderate	Y	N/A
A17-02	11	dense	0	N/A	Y	N/A
A17-03	17	dense	6	dense	Y	N/A
A17-04	15	dense	6	dense	N	N
A17-05	13	dense	8	dense	Y	N/A
A17-06	11	dense	1	sparse	Y	N/A
A17-07	13	dense	4	moderate	Y	N/A
A17-08	12	dense	1	sparse	Y	N/A
A17-11R	8	dense	0	N/A	Y	N/A
A17-12R	6	dense	1	sparse	Y	N/A
A17-13	16	dense	4	moderate	Y	N/A
A17-14a	20	dense	10	dense	Y	N/A
A17-14b	21	dense	11	dense	Y	N/A
<b>Average density =</b>	<b>13.43</b>		<b>4.29</b>			
<b>Cantonment</b>						
A06-01	6	dense	4	moderate	N	N
A07-01	5	dense	4	moderate	Y	N/A
A08-01	11	dense	10	dense	N	N
A08-02a	8	dense	7	dense	N	N
A08-03	8	dense	8	dense	N	N
A08-04	7	dense	7	dense	N	N
A09-03R	6	dense	4	moderate	N	N
A09-04R	7	dense	7	dense	N	N
A09-05	10	dense	9	dense	N	N
A20-04	1	sparse	1	sparse	N	Y
A20-06	8	dense	5	dense	N	N
BB03-01R	3	moderate	2	sparse	Y	N/A
BB04-01R	6	dense	3	moderate	N	N
BB05-01R	5	dense	3	moderate	N	N

Density rating: ≥ 4.7 active clusters within 1.25 miles = dense

2.6 - 4.6 active clusters within 1.25 miles = moderate

≤ 2.5 active clusters within 1.25 miles = sparse

N/A = If subject cluster was "taken" at cluster level, it was not considered for "take" at group level.

Table 3-16 (cont.). Pre- and post- project densities of red-cockaded woodpecker (RCW) clusters within 1.25 miles of clusters impacted by MCOE projects, **Alternative B**, Fort Benning, Georgia.

Cantonment (cont.)	Pre- Project		Post- Project		Cluster Level Take (Y/N)	Group Level Take (Y/N)
	# Active Clusters within 1.25 Miles	Density Rating	# Active Clusters within 1.25 Miles	Density Rating		
C01-02	10	dense	7	dense	N	N
C01-03	10	dense	8	dense	N	N
C01-06	9	dense	8	dense	N	N
C02-02	6	dense	5	dense	N	N
HCC-08R	8	dense	6	dense	N	N
HCC-10R	6	dense	5	dense	Y	N/A
HCC-11R	7	dense	5	dense	Y	N/A
J01-02R	7	dense	5	dense	Y	N/A
J02-02R	9	dense	5	dense	Y	N/A
KPR-01	11	dense	11	dense	N	N
Q02-02	8	dense	6	dense	N	N
Q02-03	8	dense	7	dense	Y	N/A
Q02-04R	4	moderate	3	moderate	Y	N/A
R02-01R	5	dense	2	sparse	Y	N/A
S01-01	8	dense	6	dense	N	N
S02-01R	9	dense	6	dense	N	N
S03-01R	9	dense	8	dense	Y	N/A
SHC-02	0	N/A	0	N/A	N	Y
T02-01	12	dense	9	dense	Y	N/A
T02-02R	9	dense	6	dense	Y	N/A
<b>Average density =</b>	<b>7.24</b>		<b>5.65</b>			
<b>Southern Maneuver Corridor</b>						
D05-02R	7	dense	4	moderate	N	N
D05-04R	11	dense	9	dense	N	N
D06-01R	7	dense	4	moderate	Y	N/A
D08-01R	0	N/A	0	N/A	Y	N/A
D10-01	8	dense	2	sparse	Y	N/A
D11-01	10	dense	5	dense	Y	N/A
D11-02	10	dense	7	dense	Y	N/A
D12-01	11	dense	5	dense	N	N

Density rating: ≥ 4.7 active clusters within 1.25 miles = dense

2.6 - 4.6 active clusters within 1.25 miles = moderate

≤ 2.5 active clusters within 1.25 miles = sparse

N/A = If subject cluster was "taken" at cluster level, it was not considered for "take" at group level.

Table 3-16 (cont.). Pre- and post- project densities of red-cockaded woodpecker (RCW) clusters within 1.25 miles of clusters impacted by MCOE projects, **Alternative B**, Fort Benning, Georgia.

Southern Maneuver Corridor (cont.)	Pre- Project		Post- Project		Cluster Level Take (Y/N)	Group Level Take (Y/N)
	# Active Clusters within 1.25 Miles	Density Rating	# Active Clusters within 1.25 Miles	Density Rating		
D16-01	8	dense	3	moderate	Y	N/A
D16-02	6	dense	0	N/A	Y	N/A
D17-01	4	moderate	0	N/A	Y	N/A
D17-03	8	dense	2	sparse	Y	N/A
D17-04R	9	dense	3	moderate	Y	N/A
E02-01	14	dense	14	dense	N	N
E04-01	12	dense	10	dense	Y	N/A
F02-01R	6	dense	5	dense	Y	N/A
J06-03	13	dense	10	dense	N	N
K21-02R	4	moderate	4	moderate	N	N
K21-05R	6	dense	5	dense	N	N
Average density =	<b>8.11</b>		<b>4.84</b>			
<b>Northern Maneuver Corridor and Northern Ranges</b>						
K02-01	5	dense	3	moderate	Y	N/A
L02-02R	2	sparse	1	sparse	N	Y
L03-01	2	sparse	2	sparse	Y	N/A
M01-01	9	dense	8	dense	Y	N/A
M08-01	4	moderate	3	moderate	Y	N/A
M08-02a	8	dense	5	dense	N	N
M08-02b	7	dense	6	dense	Y	N/A
M08-04R	9	dense	7	dense	N	N
M08-05R	11	dense	6	dense	N	N
N01-02	4	moderate	4	moderate	N	N
O01-01	12	dense	7	dense	N	N
O01-02	10	dense	7	dense	Y	N/A
O01-03	10	dense	6	dense	N	N
O01-04R	11	dense	6	dense	N	N
O02-01R	10	dense	8	dense	N	N
O03-01	10	dense	7	dense	Y	N/A

Density rating: ≥ 4.7 active clusters within 1.25 miles = dense

2.6 - 4.6 active clusters within 1.25 miles = moderate

≤ 2.5 active clusters within 1.25 miles = sparse

N/A = If subject cluster was "taken" at cluster level, it was not considered for "take" at group level.

Table 3-16 (cont.). Pre- and post- project densities of red-cockaded woodpecker (RCW) clusters within 1.25 miles of clusters impacted by MCOE projects, **Alternative B**, Fort Benning, Georgia.

Northern Maneuver Corridor and Northern Ranges (cont.)	Pre- Project		Post- Project		Cluster Level Take (Y/N)	Group Level Take (Y/N)
	# Active Clusters within 1.25 Miles	Density Rating	# Active Clusters within 1.25 Miles	Density Rating		
O03-02	8	dense	6	dense	N	N
O03-03	10	dense	4	moderate	Y	N/A
O03-04	14	dense	8	dense	Y	N/A
O03-05	9	dense	8	dense	N	N
O03-06R	10	dense	5	dense	N	N
O03-07	10	dense	5	dense	N	N
O04-01	9	dense	5	dense	Y	N/A
O04-03a	10	dense	5	dense	Y	N/A
O04-03b	10	dense	5	dense	Y	N/A
O05-01	5	dense	4	moderate	N	N
O05-02	8	dense	6	dense	Y	N/A
O05-03R	7	dense	4	moderate	N	N
O07-01R	1	sparse	1	sparse	N	Y
O07-03R	2	sparse	1	sparse	N	Y
O08-01	3	moderate	2	moderate	Y	N/A
O08-02	4	moderate	1	sparse	Y	N/A
O09-02	4	moderate	1	sparse	N	Y
O10-01	8	dense	5	dense	N	N
O10-02	8	dense	6	dense	Y	N/A
O10-03	6	dense	4	moderate	N	N
O10-04	9	dense	6	dense	N	N
O11-01	10	dense	5	dense	N	N
O11-02	13	dense	8	dense	Y	N/A
O13-01	6	dense	5	dense	Y	N/A
O13-06R	6	dense	5	dense	Y	N/A
O14-03R	8	dense	6	dense	N	N
O15-01	11	dense	9	dense	Y	N/A
O15-03	11	dense	7	dense	Y	N/A
<b>Average density =</b>	<b>7.82</b>		<b>5.07</b>			

Density rating: ≥ 4.7 active clusters within 1.25 miles = dense

2.6 - 4.6 active clusters within 1.25 miles = moderate

≤ 2.5 active clusters within 1.25 miles = sparse

N/A = If subject cluster was "taken" at cluster level, it was not considered for "take" at group level.

Table 3-16 (cont.). Pre- and post- project densities of red-cockaded woodpecker (RCW) clusters within 1.25 miles of clusters impacted by MCOE projects, **Alternative B**, Fort Benning, Georgia.

Multipurpose Training Range and Associated Roads	Pre- Project		Post- Project		Cluster Level Take (Y/N)	Group Level Take (Y/N)
	# Active Clusters within 1.25 Miles	Density Rating	# Active Clusters within 1.25 Miles	Density Rating		
K08-03	7	dense	6	dense	N	N
K08-04	8	dense	7	dense	N	N
K09-01	9	dense	7	dense	N	N
K09-02R	7	dense	5	dense	N	N
K09-03R	4	moderate	3	moderate	N	N
K11-02	2	sparse	1	sparse	N	Y
K11-04R	3	moderate	3	moderate	Y	N/A
K12-01	1	sparse	1	sparse	Y	N/A
K13-02	8	dense	6	dense	Y	N/A
K13-04	5	dense	3	moderate	Y	N/A
K13-05R	9	dense	7	dense	Y	N/A
K13-06	3	moderate	1	sparse	N	Y
<b>Average density =</b>	<b>5.50</b>		<b>4.17</b>			

Density rating: ≥ 4.7 active clusters within 1.25 miles = dense

2.6 - 4.6 active clusters within 1.25 miles = moderate

≤ 2.5 active clusters within 1.25 miles = sparse

N/A = If subject cluster was "taken" at cluster level, it was not considered for "take" at group level.

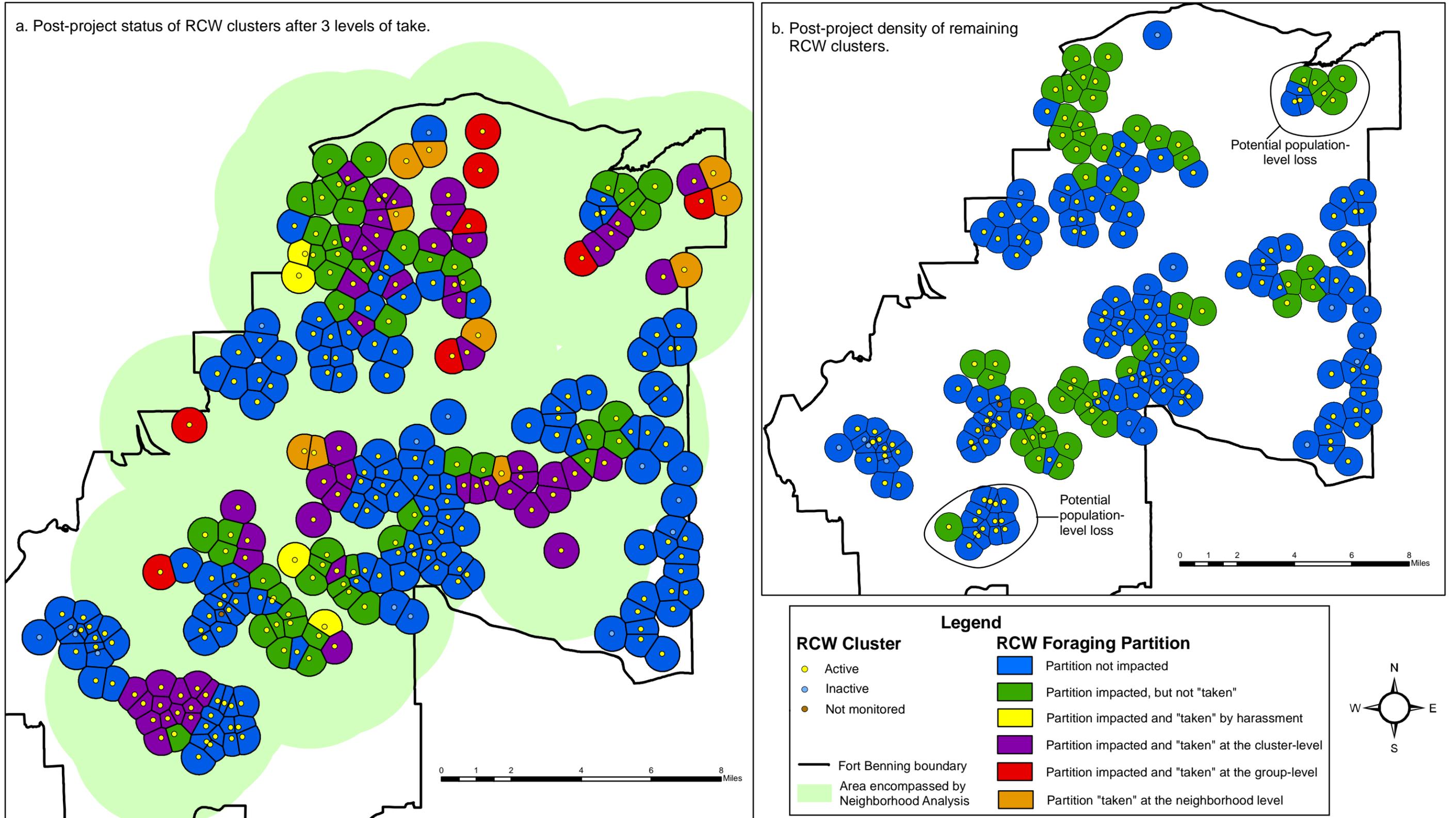


Figure 3-14. (a.) Post-project status of red-cockaded woodpecker (RCW) clusters after cluster, group (1.25 mile radius) and neighborhood (2.57 radius) analyses and (b.) post-project density of RCW clusters, Alternative B, Fort Benning, Georgia.

SHC -02. This cluster had 0 active clusters within 1.25 miles pre-project. Habitat between it and the nearest active cluster (U05-02) will become more fragmented as a result of cantonment area projects; therefore, it will be more at risk of cluster abandonment due to the proposed action.

### **3.8.3 NEIGHBORHOOD LEVEL ANALYSES**

The Neighborhood Level Analysis evaluates indirect group density impacts to clusters not directly impacted by Alternative B MCOE projects within a 2.57 mile radius “Neighborhood” (see Section 5.5 of the MCOE Biological Assessment). Ten clusters (D11-03R, J01-01, J01-03R, K10-01R, K11-03, K14-01R, O04-02, O06-03R, O06-04R and O12-02) were considered “taken” due to project-related neighborhood level impacts for Alternative B projects (Table 3-11 and Figure 3-14). Cluster O12-02 was “taken” under Alternative B only.

### **3.8.4 POPULATION LEVEL ANALYSIS**

The Population Level Analysis considers the ability of Fort Benning to meet its RCW population goal (351 PBGs in 421 total managed clusters) post-project.

#### **3.8.4.1 RCW Impacts**

Post-project, 81 of the 123 analyzed active RCW clusters would be directly or indirectly “taken” by the MCOE projects under Alternative B as a result of foraging habitat loss (58), cavity tree removal (1), harassment (4), Group Level impacts (8) and/ or Neighborhood Level impacts (10) (Table 3-11). Seventy-eight of the 81 “taken” clusters were inhabited by PBGs, therefore the proposed action would reduce the number of PBGs from 271 to 193.

In addition, 9 impacted (but not directly “taken”) clusters would have less than 120 acres of manageable habitat and would be unable to meet the RS in the future. Twenty other impacted clusters would have between 120 and 150 acres of habitat and may or may not be able to meet the RS depending on local site conditions and management regime (Table 3-15).

Due to project redesigns, impacts to 22 of those clusters “taken” by Transformation projects were reanalyzed in this Biological Assessment. Transformation projects resulting in 10 “takes” were not reanalyzed and must be added to the total impacts from this MCOE action in order to assess the cumulative effects of both actions on the Fort Benning RCW population.

Therefore, the total number of RCW “takes” resulting from the Transformation and the proposed MCOE actions is 91.

Dudded Impact Area Clusters. RCW clusters in the forested, Dudded Impact Areas which are not accessible for management cannot be counted toward the Installation recovery goal (DA 1996, 2007) at this time. However, it is generally recognized that such areas, particularly the A20 Impact Area, are populated by RCW groups and provide important foraging and dispersal habitat, as well as being a source of juvenile RCWs. Therefore, introduced or increased impacts to habitat in these areas could directly and indirectly impact the overall health and stability of the Fort Benning RCW population. The beaten areas for the proposed MPMG1 and MPMG2 ranges would result in the loss of cavity trees and foraging habitat in the following unmanaged clusters, based on current available data: A20-09 (10 of 10 cavity trees), A20-17 (4 of 4 cavity trees), A20-19 (6 of 10 cavity trees), A20-20 (8 of 8 cavity trees), A20-21 (6 of 6 cavity trees), A20-22 (1 of 1 cavity tree), A20-42 (9 of 10 cavity trees) and A20-43 (15 of 15 cavity trees). Up to 415.92 acres of foraging habitat (based on stand data provided by FBLMB) would be lost as a result of the beaten areas associated with these 2 ranges.

#### **3.8.4.2 Habitat Loss and Fragmentation**

Research has shown that the more aggregated RCW clusters are, the higher the probability of persistence, even with considerable foraging habitat loss (Hooper and Lennartz 1995). Therefore, the area with the greatest aggregation of clusters would be considered to be the most stable. Pre-project, these areas on Fort Benning are within and around the A20 Impact Area in the southwest, northeast of Ochillee Creek around Hourglass Road in the center of the Installation and in the Oscar compartments in the northwestern corner of the Installation. Under Alternative B there would be substantial reductions in cluster density around the Oscar complex, around the A20 Impact Area, in the Northern Maneuver Area and in the Southern Maneuver Area (Figure 3-14). There would still be densely aggregated clusters post-project along Ochillee Creek, although density would be reduced. Maintaining areas with high cluster density is crucial to ensure that the RCW population remains stable enough to survive and reach recovery.

The proposed action would create several large openings, the largest being the MPMG1 and MPMG2 ranges ( $\pm 1,215.05$  acres (including forested habitat within the A20 Impact Area), averaging 1.59 by 2.38 mi.), ST2 ( $\pm 562.63$  acres, averaging 1.97 by 1.38 mi.), MPTR ( $\pm 875.88$

acres, averaging 0.97 by 3.30 mi.) and the Southern Maneuver Area ( $\pm 3,035.86$  acres, 4.39 by 1.47 mi.). While these openings would be substantial and RCWs are unlikely to cross them directly on a regular basis, sufficient dispersal corridors would remain so that adjoining habitats would not be permanently isolated as a result of the proposed action.

Cluster SHC-02 (active), as well as the remaining habitat in the Sand Hill area, is currently somewhat isolated and would become more so with the proposed action (Figure 3-3). As young pine plantations mature, this area could become contiguous habitat and count towards the needed recovery acreage. This habitat, however, is already a challenge to manage due to its proximity to barracks and other buildings on Post, as well as a large, dense residential development just off-Post in Columbus. Currently, there are only a few weeks a year when the area is vacant and FBLMB is allowed to burn. With the amount of development proposed in Sand Hill, this area may never contribute to recovery.

Stands in the proposed Good Hope Maneuver Area are currently too young to provide a dispersal corridor between clusters south of the A20 Impact Area with clusters east of the Impact Area and US Hwy. 27-280. The Impact Area currently provides the most valuable link between RCWs to the south and west with the remainder of the Fort Benning population, however much of it would be impacted by the proposed MPMGs. Several cooperating agencies have a mutual interest in preserving potential RCW habitat between Fort Benning and Enon and Seho Plantations. Clearing for the MPMGs would significantly reduce the likelihood of RCWs successfully dispersing to the west. Retention of the remaining active clusters south and west of the A20 Impact Area would be crucial in order to eventually establish a viable subpopulation in the AL portion of the Installation.

Clusters in the southeastern corner of the Installation (e.g., Compartments H1, G5 and/ or F4) are also somewhat isolated from clusters to the west by large, young pine plantations. Maneuver training in the proposed Southern Maneuver Area is not expected to worsen this situation. In time, the young plantations can serve as a dispersal corridor to link these clusters with clusters to the west.

There are 2 groups of clusters that would become vulnerable to demographic stochasticity resulting from habitat loss, reduction of cluster density and isolation from the proposed action: a group of 8 clusters in the northeastern corner of the Installation and a group of 10 clusters in the southwest, south of the A20 Impact Area (Figure 3-14). Research on small populations suggests

that a minimum of 10 clusters, maximally aggregated, is necessary to keep small numbers of clusters demographically viable (Crowder et al. 1998, Walters et al. 2002). Based on this research, the aggregate of clusters in the southwest may persist over time. In addition, it is possible that habitat management and pine planting around the existing IPBC range can connect these clusters with the active RCW clusters in Harmony Church in the future. However, the clusters in the northeast may become unstable or inactive over time due to isolation and their location beyond the average RCW dispersal distance (2.57 miles) from other active RCW clusters not adversely affected by the proposed action. Post-MCOE, the nearest active cluster to any of the 8 remaining clusters in the northeastern corner would be 3.4 miles away (Cluster K09-02R to K17-05R). It would be difficult to reestablish a link between these clusters and the remainder of the population because of their location between Upatoi and Kings Mill Creeks, the K15 Impact Area, the DMPRC and the Installation boundary, and considering habitat removal by the MPTR. This could result in permanent isolation of 3,089 acres of habitat.

#### **3.8.4.3 Population Recovery and Habitat Restoration**

Approximately 73,530 acres of managed pine stands would remain post-project, of which 65,934 acres are potentially contiguous pine habitat (Table 3-17 and Figure 3-15). This total includes all available pine habitat, regardless of its current condition. Approximately 19,732 acres of the contiguous habitat are in loblolly or shortleaf pine stands undergoing, or highly susceptible to, pine decline. As discussed above, 3,089 acres of habitat and 8 clusters in the northeastern corner of the Installation may be permanently isolated.

Based on average percentages of clusters inhabited by PBGs, solitary males, captured sites and inactive sites, Fort Benning currently needs to manage 421 clusters in order to have 351 PBGs and reach its Recovery Goal. However, the total number of clusters needed may increase if part of the RCW population becomes permanently isolated due to habitat fragmentation and/ or there is a decrease in the proportion of clusters inhabited by PBGs.

At recovery, clusters are managed to contain a minimum of 150 acres of good quality foraging habitat meeting all of the Recovery Standard criteria listed in Section 3.1.8 of the MCOE Biological Assessment (USFWS 2003a). While it may be possible for 100% of the habitat within some clusters to meet the Recovery Standard (thereby requiring only 120 total acres of pine habitat at recovery), it is more likely that, even using single-tree selection and

Table 3-17. Removals and remaining acreage of all contiguous pine and pine- hardwood habitat (potential RCW habitat, current and future), Alternative B Maneuver Center of Excellence, Fort Benning, Georgia.

Pine and pine- hardwood habitat removals and post-project totals:	
	Alternative B (Acres)
Pre- project Forested Pine Habitat <sup>1</sup>	86,945
Total Foraging Habitat Removal	13,415
Post-project Forested Pine Habitat	73,530
<b>TOTAL POST- PROJECT CONTIGUOUS HABITAT<sup>2</sup></b>	<b>65,934</b>
<b>Average acres/ 421 clusters</b>	<b>156 acres/ cluster</b>

<sup>1</sup> Includes Transformation projects not being reanalyzed.

<sup>2</sup> Total could increase as Fort Benning identifies hardwood-dominated stands to convert to longleaf pine.

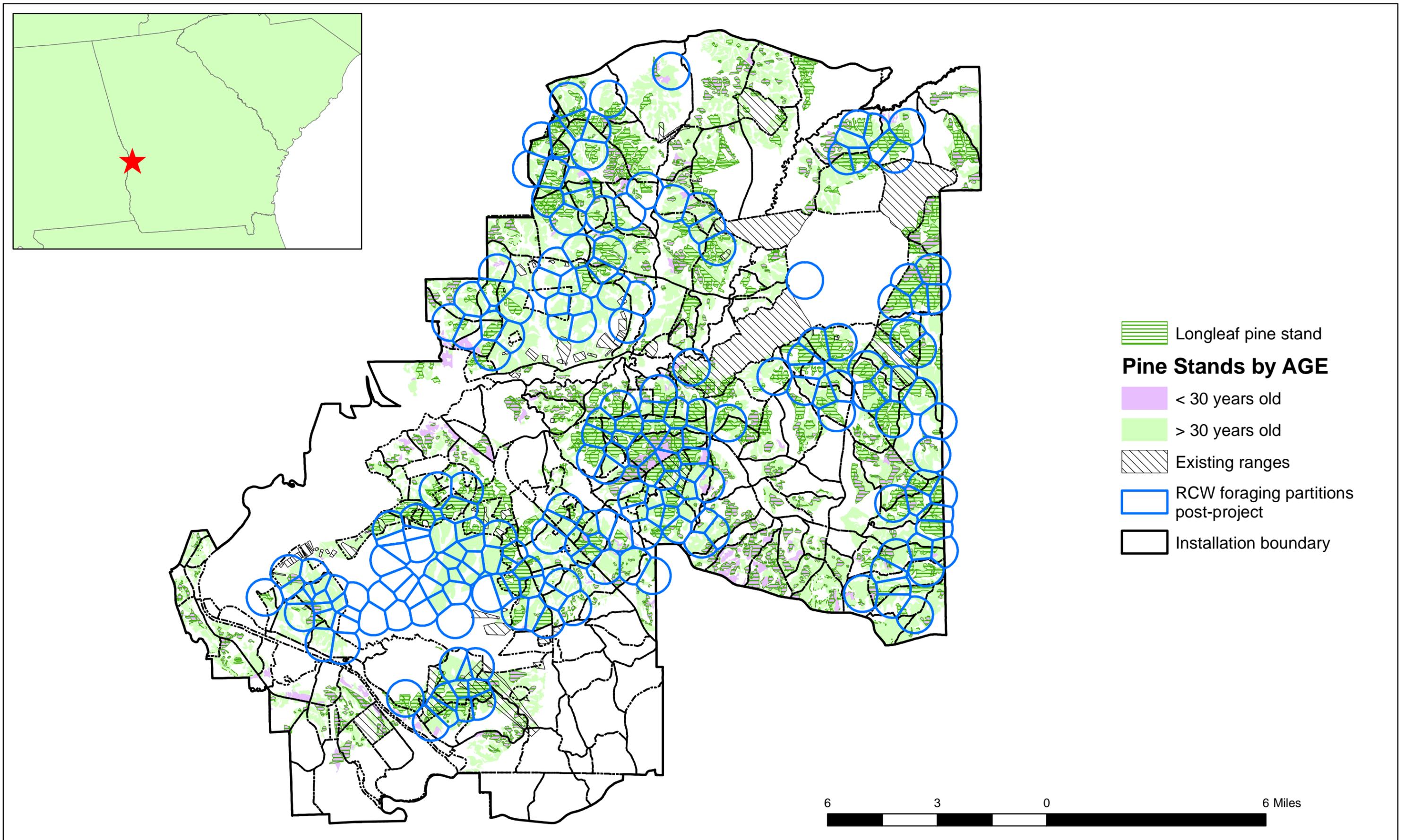


Figure 3-15. Red-cockaded woodpecker (RCW) partitions remaining post-project for Alternative B and contiguous pine and pine-hardwood stands (potential RCW foraging habitat) by age and species, Fort Benning.

uneven-aged management, some percentage of the pine stands in each partition would be in various stages of succession; in poor health; damaged from fire, weather, or training; or would need to be cleared for projects or military training.

In order to ensure sufficient habitat for 421 clusters, 150 acres per cluster was allowed. This decision was supported by the definitive foraging habitat and fitness study for Sandhills RCWs (conducted in NC), which found that the average home range size in the best quality habitat was nearly 200 acres (Walters et al. 2002). The 120 acre foraging habitat minimum acreage in the Recovery Standard (USFWS 2003a) is based on contiguous suitable habitat growing on high quality sites. These conditions do not currently exist on Fort Benning and may never be achieved there at a landscape level.

Using the allocation of 150 acres/cluster, Fort Benning would need 63,150 acres of contiguous longleaf habitat for recovery. The pine habitat acreage remaining post- project (65,934) could support 421 clusters at 156 acres/ cluster or 439 clusters at 150 acres/ cluster, which would be sufficient to meet recovery in the future depending on the spatial configuration of the remaining habitat and the distribution of RCWs on the landscape (but not considering habitat and population losses attributed to pine decline, future project removals/impacts or losses due to training impacts). However, if the loss of habitat due to the MPTR range is never recovered (3,089), the contiguous acreage remaining post-project (62,845 acres) would only support 419 clusters with 150 acres/ cluster each, slightly below the number of clusters Fort Benning must manage to meet its Recovery Goal.

Fort Benning is in the process of identifying upland hardwood-pine stands for conversion to longleaf pine. This conversion could potentially add to the total acres of pine on the Installation. Research currently being conducted on underplanting longleaf in loblolly pine stands, forest decline and pre-colonial stand composition at Fort Benning (Section 8 of the MCOE Biological Assessment) would provide valuable information in determining the best treatment methods to use in order to maintain the maximum amount of RCW habitat while successfully regenerating stands to longleaf pine.

### **3.8.5 RECOVERY UNIT ANALYSIS (JEOPARDY ANALYSIS)**

In jeopardy analyses, a species' likelihood of both survival and recovery must be considered (USFWS and NMFS 1998). With RCWs, this determination is made at the Recovery

Unit Level (USFWS 2003a). Recovery is defined as “improvement in the status of a listed species to the point at which listing is no longer appropriate under the criteria set out in Section 4(a)(1) of the Act.” Survival can be defined as “the condition in which a species continues to exist into the future while retaining the potential for recovery” (USFWS and NMFS 1998).

As discussed above, analyses at the Cluster, Group, Neighborhood and Population Levels suggest that Fort Benning may not be able to ultimately support a Primary Core Recovery Population (350 PBGs), thereby failing to perform the role prescribed for it in the species’ Recovery Plan (USFWS 2003a). The proposed action (either alternative) is certain to delay recovery of the Fort Benning RCW population.

While Fort Benning is geographically within the Sandhills Recovery Unit, the closest RCW recovery populations to Fort Benning are the Piedmont/ Oconee Secondary Core Population (Piedmont Recovery Unit), Talladega/ Shoal Creek Essential Support Population (Cumberlands/ Ridge and Valley Recovery Unit) and the J.W. Jones Ecological Research Center Significant Support Population. A demographic link between Fort Benning and the next closest population in the Sandhills Recovery Unit (Fort Gordon) would require first forming a link with the Piedmont/ Oconee population. For this reason, while Fort Benning’s role in the Sandhills Recovery Unit should be the primary focus of the Recovery Unit analysis, attention must also be paid to Fort Benning’s role in relation to other populations in other Recovery Units as well.

USFWS would determine if the impacts described in this Biological Assessment would affect the Sandhills Recovery Unit’s ability to recover in the BO for this action.

### **3.8.6 BIOLOGICAL DETERMINATION**

#### **May Affect, Likely to Adversely Affect**

## **4 CUMULATIVE EFFECTS**

In order to minimize repetition in this Appendix, refer to the Section 7 of the MCOE Biological Assessment for discussions on the Cumulative Effects.

## **5 STANDARD ENVIRONMENTAL PROTOCOLS AND ONGOING CONSERVATION EFFORTS**

In order to minimize repetition in this Appendix, refer to the Section 8 for MCOE Biological Assessment for discussions on the Standard Environmental protocols and Ongoing Conservation Efforts.

## **6 MINIMIZATION EFFORTS**

In order to minimize repetition in this Appendix, refer to the Section 9 of the MCOE Biological Assessment for discussions of measures that will be taken in order to minimize impacts to RCWs and relict trillium affected by Alternative B projects.

## 7 CONCLUSIONS

The proposed 2009-2012 Alternative B MCOE projects would have no effect on Michaux's sumac, purple bankclimber, shiny-rayed pocketbook, gulf moccasinshell, oval pigtoe or the wood stork. In addition, there would be no destruction or adverse modification of Critical Habitat for the shiny-rayed pocketbook mussel.

Potential direct impacts to relict trillium include damage to, and destruction of, plants in the Randall Creek North trillium population by clearing and construction of a proposed new security fence, road and bridge. Affected plants may be relocated to a recipient site on Fort Benning or to a site on GA DNR property in order to establish or enhance off-post relict trillium populations.

The ecosystem at Fort Benning is currently stressed, as land managers transition the forests from a fire-suppressed, loblolly pine-dominated system to a frequently burned, longleaf pine-dominated system. The proposed action would exacerbate the forest decline situation at Fort Benning and there would be a major loss of active RCW clusters. Sufficient contiguous pine acreage may remain post-project for the Installation to meet its population recovery goal in the future.

Post-project approximately 65,934 acres of pine habitat would remain, of which approximately 19,735 acres would be in loblolly or shortleaf pine stands with a high risk of decline. Pine acreage remaining post-project could potentially support for 421 clusters at 156 acres/ cluster or 439 clusters at 150 acres/ cluster. If the habitat associated with the isolated clusters in the northeast corner (3,089 acres) is removed, 421 clusters with 149 acres/ cluster and 419 clusters with 150 acres/ cluster could be supported.

RCW cavity trees and/ or foraging habitat would be impacted in 124 active and 12 inactive RCW clusters as a result of 2009-2012 MCOE projects. In 2008, 122 of these active clusters contained PBGs, 1 contained a solitary male and 1 was a captured site.

FHAs were completed for 123 active clusters (project impacts to 1 active cluster were in non-contiguous habitat and an FHA was not conducted). Pre- project, 35 of the 123 analyzed active clusters did not meet the SMS and 121 clusters did not meet RS.

Fifty-eight of the 123 active RCW clusters did not meet the SMS post- project and would be directly "taken" by the Alternative B Transformation projects. One additional cluster would be "taken" only because of cavity tree removals and 4 would be "taken" due to harassment

impacts. Eight clusters would be “taken” at the group level and 10 would be “taken” at the neighborhood level. Transformation projects resulting in 10 “takes” were not reanalyzed and must be added to the total impacts from this MCOE action in order to assess the cumulative effects of both actions on the Fort Benning RCW population. Therefore, the total number of RCW “takes” resulting from the Transformation and the proposed MCOE actions is 91.

One hundred and twenty-two clusters did not meet the RS post- project. Of these, 9 impacted (but not “taken”) clusters would have less than 120 acres of manageable habitat and would be unable to meet the RS in the future and 20 others would have between 120 and 150 acres of habitat and may or may not be able to meet the RS in the future depending on the local site conditions and management regime.