# **APPENDIX B**

# TRANSLOCATION MONITORING AND IMPLEMENTATION

PLAN

#### **Translocation Monitoring and Implementation Plan:**

A management strategy for clusters impacted by Transformation actions on Ft. Benning.

This plan discusses management efforts designed to minimize the impacts of Transformation actions, especially related to Base Realignment and Closure(BRAC) to Red-Cockaded Woodpeckers (RCW) on Ft. Benning, GA. Specifically, this document satisfies the US Fish and Wildlife Service (USFWS) requirement for a 'Translocation Monitoring and Implementation Plan' for 9 RCW groups potentially effected by Transformation actions. Consistent with paragraph 7 of the 'Reasonable and Prudent Measures' outlined by the USFWS in their Biological Opinion (BO), this plan and its implementation meet the non-discretionary requirements presented in 'Terms and Conditions' paragraph 8.

#### **Proposed Action**

As mandated by Congress, the US Army is currently undergoing a reorganization and redistribution effort which involves the BRAC process. Many of the activities associated with this transformation will occur within the boundaries of the Ft. Benning Army Installation. One of the largest of these actions involves moving the Armor School from Ft. Knox to Ft. Benning. Under the proposed action, the Army would provide the facilities, infrastructure and equipment needed to support this transformation and the associated influx of soldiers and training as a result. In addition to upgrading cantonment areas, the Army will also conduct upgrades to existing training ranges and roads as well as construct numerous new ranges and tank trails throughout the Installation.

Pursuant to section 7of the Endangered Species Act, the Ft. Benning Conservation Branch (FBCB) conducted a thorough Biological Assessment (BA) to determine the possible impact these BRAC actions may have on the environment and various plant and animal species. The assessment determined that the actions were likely to adversely affect, among other species, the resident RCW population, but not jeopardize its continued existence on the Installation. The assessment also described current, ongoing and future management criteria that will ensure survival and persistence of this species (Ft. Benning, 2007).

#### The Red Cockaded Woodpecker

In 1970, the USFWS listed the RCW as endangered (Federal Register 35:16047), and in 1973, the passage of the Endangered Species Act provided federal protection for this endangered species. The major component in the determination to list the RCW was the documented decline in local populations and massive reduction in foraging and nesting habitat. Today's population represents less than 3% of what was present in pre-colonial America (USFWS, 2003).

The RCW is a territorial, non-migratory, cooperatively breeding species (Lennartz, 1987). Breeding pairs are monogamous and produce broods of 1-4 fledglings per year.

Many groups also support one or more 'helpers', which are usually the male offspring from the pervious season. The remaining offspring typically disperse an average of 2 miles from their natal cluster within their first year. The most common periods for dispersal are just before or just after the breeding season (i.e. early fall or early spring).

Historically, the RCW occupied a wide range throughout old-growth, fire-maintained pine ecosystems of the southeastern United States. Although still widely distributed, the range of the RCW is now limited and fragmented as a result of timber clearing for agriculture, fire suppression, natural disasters, and disease. The RCW is the only North American woodpecker that excavates its roost and nest cavities exclusively in living pines, thus the habitat and cavity trees are both limiting factors for the RCW (USFWS, 2003).

#### **RCWs on Ft. Benning**

In September 1994, the USFWS issued a Jeopardy Biological Opinion (JBO) to Ft. Benning which concluded that ongoing military training, timber harvest and construction activities on Ft. Benning would "jeopardize" the continued existence of the Installation's RCW population. Since that time, intensive management activities have increased and improved the habitat and conditions for the RCW in an effort to recover the species and comply with USFWS requirements. In 2002, Ft. Benning received a BO for the Endangered Species Management Plan that was non-jeopardy for the RCW.

Currently, Ft. Benning supports 306 manageable RCW clusters with 262 Potential Breeding Groups (PBG). PBGs consist of one male and one female with or without helpers that may or may not successfully fledge young. Due to the social dynamics of the RCW, referencing the number of PBGs is a more accurate measure of population size than number of individual birds or clusters. The USFWS has mandated a goal of 361 PBGs to meet recovery criteria.

The major threat to the RCW as result of BRAC action stems from the direct loss of foraging habitat and cavity trees. In the BA for the BRAC actions, Ft. Benning requested permission for the Incidental Take (i.e. elimination) of 32 RCW clusters as a direct or indirect result of these activities. Although 'taken', those clusters not removed from the landscape will continue to be managed according to the Army RCW Guidelines (Ft. Benning, 2007)

#### RCW Monitoring and Management

Army Regulation 200-3 provides specific guidelines and protocols for the management of endangered species. In accordance with this regulation, Ft. Benning has prepared an Endangered Species Management Plan for the RCW. The Army complies with these regulations through employment of an extensive plan which includes resource and habitat management and rehabilitation as well as species surveys, monitoring and data collection for the RCW.

The current monitoring plan implemented on Ft. Benning involves determining the group composition and reproductive success of the population through the use of

color band identifications and regular nest and fledge checks throughout the breeding season.

For the purposes of data collection and foraging habitat analysis, one half-mile radius divisions were created around each managed RCW cluster on Ft. Benning. This area is known as the cluster's 'foraging partition'. In addition to monitoring and improving the foraging habitat within these partitions, managers also supplement the population with 'recruitment clusters' on an annual basis.

#### Artificial Cavities and Recruitment Clusters as a Management Tool

Because natural cavity excavation is time-consuming (typically taking many years) and dispersal distances are low, colonization of RCWs in new areas is a slow process. Increases in understanding of these animals and improvements in technology have led to the development of artificial roosting cavities, installed by humans to supplement or create new clusters on the landscape.

Using artificial cavities, managers are able to create additional artificial clusters throughout the installation. These 'recruitment clusters' facilitate more rapid dispersal of RCWs and improve the spatial arrangement of groups thereby increasing population numbers (USFWS, 2003).

#### **Translocation**

Recruitment clusters not only provide clusters for nearby birds to move into naturally, they also provide the opportunity for managers to physically move birds to an area via 'translocation'. Translocation is defined as relocation of one or more RCWs from an active cluster to an inactive or recruitment cluster or to supplement a single bird cluster with a bird of the opposite sex. The relocation of RCWs is facilitated by the installation of artificial cavities and has been used as a tool to augment populations throughout their range for many years. Such augmentation assists in the recovery of the species as a whole by preventing extirpations in smaller, more isolated populations (USFWS, 2003).

#### **Translocation and BRAC/Transformation**

In August of 2007, the USFWS issued a BO in response to the BA prepared by Ft. Benning. Upon review of the BA, the USFWS agreed that the impacts due to construction and operation of several proposed ranges and buildings could remove up to 9 RCW clusters from the landscape between the initiation of action and 2011 (see maps and details below).

For construction projects, impact analysis assumed 100% clearing within the projected footprint for each project. As a result of habitat removal within their associated foraging partition, a number of clusters will be 'taken' by BRAC actions. Some of these clusters will also experience direct loss of their cavity trees. In order to provide the birds with a reasonable chance of survival, the birds residing in clusters eliminated by project construction will need to be relocated.

# Proposed Project Impacts to RCW Clusters

The following clusters (A17-01, A17-03, A17-14, HCC-03R, K02-01, O09-04R, O09-05R, D11-01 and D11-02) will be considered for translocation as a result of the anticipated loss of all or most of their cavity trees:

# A17-01

The 2011 Qualification Training Range and Beaten Area will remove 4 of 4 cavity trees which will result in elimination of the cluster by loss of cavity trees. This cluster will also experience a loss of 87.59 acres of habitat (see map below).

#### A17-03

The 2011 Qualification Training Range and Beaten Area will remove 11 of 11 cavity trees, which will result in loss of the cluster by loss of cavity trees. This cluster will also experience a loss of 109.12 acres of habitat (see map below).

#### A17-14

The 2011 Qualification Training Range and Beaten Area will remove 7 of 7 cavity trees which will result in loss of the cluster by loss of cavity trees. This cluster will also experience a loss of 122.32 acres of habitat (see map below).



#### HCC-03R

Construction of the 2009 Centralized Wash Facility will remove 2 of 9 cavity trees and have impacts within 51 to 200 feet of 2 others. In addition, the 2011 3rd ID Brigade Combat Team project will remove five of nine cavity trees which will result in elimination of the cluster by loss of cavity trees. This cluster will also experience a loss of 125.86 acres of habitat (see map below).



# K02-01

The 2009 Tank/ Fighting Vehicle Stationary Gunnery Range (SGR2) and beaten area will remove 5 of 5 cavity trees which will result in eliminated of the cluster by loss of cavity trees. This cluster will also experience a loss of 191 acres of habitat (see map below).



#### **O09-04**

The 2007 Tank/ Fighting Vehicle Stationary Gunnery Range (SGR1) and beaten area will remove 7 of 7 cavity trees which will result in elimination of the cluster by loss of cavity trees. This cluster will also experience a loss of 146 acres of habitat (see map below).

#### 009-05

The 2007 Tank/ Fighting Vehicle Stationary Gunnery Range (SGR1) and beaten area will remove 6 of 6 cavity trees which will result in take of the cluster by loss of cavity trees. This cluster will also experience a loss of 241.05 acres of habitat (see map below).



The following two clusters are expected to experience impacts to all of their cavity trees as well as habitat loss. These impacts may result in elimination of the cluster and therefore the birds in this cluster will need to be translocated to another location. The determining factor will be whether or not the Maneuver Corridor-South is cleared or selectively-thinned. For these groups, Fort Benning will consult with the USFWS to determine where those birds should be relocated if necessary.

# D11-01

The 2009 Heavy Maneuver Corridor–South will impact 7 of 7 cavity trees which could result in elimination of the cluster by loss of cavity trees or harassment. This cluster will also experience a loss of 81.6 acres of habitat (see map below).

#### D11-02

The 2009 Heavy Maneuver Corridor-South will have impacts within 51 to 200 feet of 7 of 7 cavity trees which could result in elimination of the cluster by loss of cavity trees or harassment. This cluster will also experience a loss of 84.56 acres of habitat (see map below).



Further groups may also require relocation from clusters within maneuver heavy use areas and range beaten areas. Ft. Benning will consult with the USFWS if monitoring in these areas indicates that translocation or cluster shifting is necessary.

#### **Minimization Efforts**

Although incidental take has been approved for the aforementioned clusters, Ft. Benning will continue to act in the best interest of its RCW population. Every reasonable effort to increase population size and density including minimizing harassment and maximizing survival and retention of individual birds will be employed.

Ft. Benning will continue to serve as a donor population and, at the request of the USFWS, will contribute the offspring from clusters relocated as a result of BRAC to the Southern Range Translocation Cooperative (SRTC). However, an observed decline in the population as a result of BRAC or other actions may impede Ft. Benning's participation in this program and require further consultation with the USFWS.

Ft. Benning wishes to maintain its status as a recovery population and will attempt to retain the breeding pairs and helpers displaced by BRAC actions. This may involve the intra-population translocation of several established groups and, in some cases, repartitioning foraging habitat and shifting cluster centers.

#### 1) Reallocating Foraging Partitions

Due to the low success rate of relocating established groups, reallocating foraging partitions is Ft. Benning's preferred method to reduce incidental take of clusters and minimize harassment. If reallocating the manageable acreage within foraging partitions will leave enough remaining suitable habitat for a particular group, shifting the cluster center is preferred to translocating the birds. Leaving the group in place would likely provide a higher probability of success (future reproduction from these birds) than translocating them (pers. comm. Ralph Costa, 2007).

Shifting the cluster center is accomplished by systematically forcing the birds to move into newly installed artificial cavities in an area near their original cluster and allowing the birds to acclimate to their new surroundings. Shifting is carried out prior to destruction of the old cavity trees and all limiting habitat factors are addressed prior to shifting.

The *Standard for Managed Stability (SMS)* is the minimum threshold used to assess RCW foraging habitat. Where possible, Ft. Benning will follow these standards when shifting cluster centers and locating recruitment clusters for displace groups. SMS guidelines are outlined in the RCW Recovery Plan and discuss a requirement of 3,000 ft<sup>2</sup> of pine BA for stems 10 inches or greater, with average pine basal area of those stems, between 40 and 70 ft<sup>2</sup>/acre. There must be at least 75 acres of good quality foraging habitat, and this habitat can not be separated by more than 200 feet. USFWS has determined that it may be acceptable to fall below this standard for the relocation of 'taken' groups (Costa, 2007). FBCB will consult with USFWS on a case-by-case basis as translocation approaches.

#### Guidelines and Protocols

In accordance with USFWS recommendations, Ft. Benning will observe the following protocol for shifting cluster centers:

- When positioning the new cluster center, a one half-mile perimeter is created around the proposed area and the habitat within this polygon is first analyzed to determine if it meets the USFWS criteria.
- Areas chosen for cluster shifts will be as near as possible to the original cluster, but no closer than 0.25 miles from any existing cluster.
- New cavities will be installed 3 months prior to clearing an area in order to give the birds ample opportunity to discover and inhabit the new cavity trees.
- Cavities in trees designated for deletion will be 'plugged' using a wooden peg and putty 3 weeks prior to initiation of tree harvest.
- FBCB will install a second recruitment cluster in a predetermined area of the Installation to serve as a 'backup cluster'. These cavities will remain screened until translocation, if it becomes necessary. If shifting the cluster is successful, the 'backup cluster' will serve as general recruitment clusters within the Ft. Benning population.
- In the event that the newly shifted cluster becomes inhabited by a non-target group or species, the target group will be translocated to the secondary cluster following intra-population translocation measures as described below.
- Management and monitoring activities will continue for these groups as outlined below.

#### 2) Intra-Population and Off-Post (Inter-Population) Translocations

Translocation will only be used as a tool to relocate those groups experiencing significant habitat loss and/or loss of cavity trees where repartitioning the cluster is not an option.

Whenever possible, displaced groups will be translocated to pre-determined recruitment clusters elsewhere on the installation. Recruitment clusters will provide 'replacement' cavities and habitat for relocated groups. If limiting factors such as minimum distance requirements and habitat quality prevent intra-population translocations, groups will be moved off-post to pre-arranged recipient populations within the SRTC.

In an effort to bolster a semi-isolated portion of the population and promote better spatial arrangement, Ft. Benning will attempt to relocate several clusters to the southeast section of the installation. Where necessary, Fort Benning will implement the necessary management actions to ensure stands meet the SMS guidelines for habitat conditions.

This action may offset the loss of taken clusters from the population by maintaining established breeding pairs. This will provide an opportunity for Ft. Benning to expand and increase population density while pursuing its recovery goal.

#### Guidelines and Protocols

Ft. Benning will implement the requirements for intra-population translocations outlined in section 8H of the RCW Recovery Plan as follows:

- In the case of intra-population moves, FBCB will ensure that the recipient clusters are in the best possible condition via thinning, hardwood midstory control and/ or cavity installation and maintenance.
- SMS guidelines will be implemented for all recruitment clusters selected and management actions will be completed prior to relocation of the birds.
- Each new cluster will be within 1 mile of multiple existing groups but no closer than .25 miles from any other cluster.
- A minimum of four cavities or the number necessary to accommodate all individuals will be installed or restored per cluster and will remain screened until the translocation event to prevent establishment of non-target groups or species.
- All groups will be moved a minimum of 10 miles from their original cluster as required by the USFWS to reduce 'homing' of the relocated birds.
- Status and composition of the target group will be confirmed one to three days prior to capture and relocation.
- All adults and sub-adults will be translocated simultaneously and the cavities screened immediately after RCWs are captured and removed.
- If possible, Ft. Benning will provide one additional recruitment cluster for each group translocated within 1 mile of the recipient cluster. This guideline is outlined in the Recovery Plan but is not necessary to follow in the case of 'taken' groups (Costa, 2007).
- A management and monitoring plan will be extended to these recruitment clusters as outlined below.

#### Methodology

Ft. Benning will follow the protocol outlined in Appendix 3 of the RCW Recovery Plan and employ the translocation method described therein unless otherwise dictated by the USFWS.

- Target RCWs are trapped at dusk using capture nets attached to telescoping poles.
- The birds are placed in wooden boxes with plastic mesh faces for transport to the target recruitment cluster then hand placed in their new cavity.
- A wire mesh screen fitted with a pull string is nailed over the cavity entrance effectively trapping the bird in the cavity.
- The birds are released at dawn the following morning. Once all birds are observed pecking at the screens, the screens are simultaneously pulled free of the cavity.
- Staff members will complete a data collection sheet similar to that provided below.

#### Timelines

Because Incidental Take has been approved for the clusters discussed in this plan, USFWS had determined that Ft. Benning is not required to follow the exact guidelines outlined in the RCW Recovery Plan (USFWS, 2007). However, FBCB will implement these recommendations to the best of its ability where applicable. Although success rates have been shown to increase with the simultaneous release of multiple pairs (USFWS, 2003), Ft. Benning will translocate groups according to construction and timber clearing schedules in an effort to minimize unnecessary harassment. When applicable, multiple groups will be released simultaneously in their target recruitment clusters.

Groups will remain in their native clusters until the year in which they are expected to be impacted by BRAC actions. This will ensure that the clusters originally analyzed as impacted will in fact be effected by the final design plan for the project. This will eliminate any unnecessary translocations and prolong the group's reproductive success and contribution to the total population for as long as possible.

Ft. Benning will make every reasonable attempt to capture the sub-adults considered for off-post moves during the established timeline outlined in the RCW Recovery Plan (Sept  $15^{th}$  – Jan  $1^{st}$ ). Whenever feasible, the established or potential breeding pairs and their helpers will remain in the cluster until just prior to the breeding season in the year of anticipated impact. The window outlined by the USFWS for this type of translocation is March  $25^{th}$  – April  $7^{th}$ .

BRAC project actions are discussed in terms of the fiscal year (FY) during which they will be initiated. Ft. Benning's FY is defined as October 1<sup>st</sup> – September 31<sup>st</sup>. In some cases, construction may begin as early as October of the projected FY. For those impacted clusters, adults will need to be moved prior to the initiation of projects and potentially as early as the spring preceding the FY of impact. For example, if construction is for an FY09 project is slated to begin in October of 2008, the impacted RCW group will be translocated prior to the 2008 nesting season.

Because construction initiation dates are not readily available for future projects, specific translocation timeframes for each cluster cannot be determined at this time. As action dates approach, scheduling will consider construction deadlines, FBCB staff availability and schedules of donor and recipient populations, as well as USFWS guidelines.

#### **Cluster-Specific Translocation Strategy**

As currently active clusters may become inactive, translocations will only take place for clusters active just prior to project initiation. Cavities in inactive clusters will be screened 3 weeks prior to timber harvest to prevent reactivation. In addition, currently inactive clusters may be activated before construction begins. In this case, Ft. Benning will consult with the USFWS as to the course of action recommended.

Due to the fluid nature of the BRAC projects and their associated impacts on RCW groups, plans specific to each cluster will be developed as the action approaches but will follow the general plan discussed in this document. Due to the close timing of the Record of Decision (ROD) to the FY07 BRAC projects, plans for translocations of clusters impacted by these actions have been prepared. These groups will be translocated to a recruitment cluster in the southeastern portion of the Installation. It is

anticipated that this translocation will take place between October 1<sup>st</sup> and November 30<sup>th</sup>, 2007 and will follow the protocols outlined above. If timber harvest for the project is delayed until after the 2008 nesting season, Ft. Benning will delay the translocation in response in order to give the birds the best opportunity for survival and reproduction.

Ft. Benning received permission from USFWS to translocate the following individuals to the recruitment clusters described.

#### **O09-04**

This cluster is designated for cavity tree removal and construction is scheduled to begin 1 Jan 08 (Morris, 2007). The pair currently occupying this cluster did not produce offspring in 2007.

The target birds designated for translocation are: USFWS Number 1991-04474: 3Y Female B-USFWS/PI-LTBLU-PI USFWS Number 1801-45793: 5Y Male USFWS-DKPI/B-O-B

#### **O09-05**

Ft. Benning has determined that it is not possible to follow the plan outlined in the BA with regards to shifting cluster O09-05 (see diagram below) in FY07 (Ft. Benning 2007; Pg 384; Figure 6-20). Upon closer inspection, FBCB personnel determined there are no suitable cavity trees available in the target area described in the BA.

This cluster is designated for cavity tree removal and construction is scheduled to begin 1 Jan 08 (Morris, 2007). The pair currently occupying this cluster did not produce offspring in 2007. This group includes one related male helper. FBCB will translocate the adult pair of this group together. Because the helper male is related to both adults, FBCB will attempt to create a third pair by translocating the helper male to a separate cluster along with a sub-adult female. This will only occur if the male is still present at the time of the translocation event and if a sub-adult female can be located. This action may likely increase the probability of the young pair remaining in their target cluster and nesting successfully (Costa, 2007). The target adults designated for translocation are: USFWS Number 1891-64759: A4Y Female USFWS-DKBLU/B-B-Y

USFWS Number 1751-00780: 7Y Male DKPI-USFWS/LTG-LTG-Y

The target helper male designated for translocation is: USFWS Number 1801-45994: 2Y Male USFWS-LTBLU/B-B-Y He will be paired with a sub-adult female determined to be available for translocation at a later date.

The three recruitment clusters chosen for the relocation of the aforementioned groups are described below (see diagrams). The clusters will be located in the southeastern portion of the Installation and all are greater than 10 miles from the cluster they currently inhabit. The specific cluster in which individuals will be released will be determined at the time of the translocation event.

#### RCW Cluster G07-01, #324

This cluster is a currently inactive cluster that will be reactivated for the purpose of this translocation. The artificial cavities associated with this cluster have recently been replaced by the FBCB. The habitat associated with this recruitment cluster currently consists of 30.474 acres of good quality habitat with a pine basal area (BA) of 40 or greater. With permission of the USFWS via the RCW Recovery Coordinator, Ft. Benning will alter the current standard from 40 BA to 30 BA for the purpose of accommodating this translocation event (Costa, 2007). Utilizing this reduced standard will immediately yield 98.737 acres of RCW foraging habitat. Management listed for the following stands will result in 175.79 acres of good quality RCW foraging habitat with a total BA of 6489.539. See attachment for additional information regarding this cluster.

Stand ID	Management required
G0706	removal of over-story hardwood component
G0714	removal of over-story hardwood component
G0716	removal of mid-story and over-story hardwood component



# Cluster F04-05, #996

The habitat associated with this recruitment cluster currently falls below SMS standards and contains no stands with a pine basal area (BA) of 40 or greater. With permission of the USFWS via the RCW Recovery Coordinator, Ft. Benning will alter the current standard from 40 BA to 30 BA and reduce the minimum acreage from for 75 to 65 for the purpose of accommodating this translocation event (Costa, 2007). Utilizing this reduced standard will immediately yield 65.281 acres of good quality RCW foraging habitat with a total BA of 2249.588. In addition, Ft. Benning will implement the following management activity to improve the potential acreage of this cluster.

See attachment for additional information regarding this cluster.



# Cluster G05-04, #997

The habitat associated with this recruitment cluster currently falls below SMS standards and contains no stands with a pine basal area (BA) of 40 or greater. With permission of the USFWS via the RCW Recovery Coordinator, Ft. Benning will alter the current standard from 40 BA to 30 BA for the purpose of accommodating this translocation event (Costa, 2007). Utilizing this reduced standard will immediately yield 196.685 acres of good quality RCW foraging habitat with a total BA of 6649.416.

No additional management activities are required to improve this recruitment cluster. See attachment for additional information regarding this cluster.





Cluster	Year of anticipated impact	Project Number	Action Impacting Cluster	Cavity Tree Loss	Cavity Tree Impacts	Total Foraging Habitat Lost (acres)
A17-01	2011	67012	QTR	4 of 4	0	87.59
A17-03	2011	67012	QTR	11 of 11	0	109.12
A17-14	2011	67012	QTR	7 of 7	0	122.32
HCC-03R	2009	65252/48644	Centralized Wash Facility	2 of 9	2 of 9 2 of 9	
	2011	63799	3rd ID Brigade Combat Team Complex	5 of 9	0	125.86
K02-01	2009	65383	SGR 2	5 of 5	0	191.7
009-04R	2007	65382	SGR 1	7 of 7	0	133
009-05R	2007	65382	SGR 2	6 of 6	0	241.05
D11-01	2009	n/a	Heavy Maneuver Corridor – South	0	7 of 9	81.6
D11-02	2009	n/a	Heavy Maneuver Corridor – South	0	7 of 7	84.56

# Clusters requiring relocation as a result of BRAC actions

# **BRAC Translocation Data Collection Table**

Individual IDs (band combinations)											
Adults	Sex	Helpers	Sex	Capture Cluster	Tree Number	Time of capture	Relevant Weather Conditions	Release Cluster	Release Tree Number	Time of release	Weather Conditions at release site

#### **Post-Translocation Monitoring**

Following examples from population managers experienced in intra-population translocations, Ft. Benning will employ the following protocol for post-translocation monitoring.

- FBCB staff will return to the cluster at dusk or dawn the day following the translocation event and identify band combinations of any RCWs observed to determine if the target birds remained in their target cluster.
- Regardless of presence or absence, technicians will return one week and one month post-translocation to repeat their observations.

Because the target clusters are also recruitment clusters, Ft. Benning will monitor them employing the protocols followed for monitoring other recruitment clusters.

- FBCB staff will conduct bi-annual inspections (spring and fall) to monitor activity status.
- Prior to the breeding season, Ft. Benning will conduct a thorough inspection to determine condition and contents of all cavity trees in the cluster.
- During the nesting season (April July), any cluster found to be inactive will be checked every 3 weeks for signs of activity.
- Active clusters will follow normal monitoring protocol.
  - Group composition will be determined for each cluster.
  - Personnel will band all nestlings and any unbanded adults associated with the group.
  - Staff will perform sex checks and fledge checks for each cluster.
  - All data collected will be reported annually to the USFWS.

It is likely that the translocated groups will split and birds may disperse from the target cluster, reintegrating themselves into the population in some way, for example, by displacing other pair members, becoming 'floaters' or filling breeder vacancies. It is also possible that the translocated RCWs will attempt to return to their original cluster (pers. comm. Richard Stich, 2007). If the target birds are found in another cluster during regular annual inspections, FBCB will report these findings to the USFWS.

At the annual SRTC meeting, Ft. Benning will collect information about the fate of RCWs translocated off-post from recipient population personnel. The results of all translocation efforts will be reported to the USFWS in an Annual Report. In addition, Ft. Benning will request that each recipient population forward their annual report to USFWS GA office.

Finally, Ft. Benning will continue to consult with USFWS as to the specific clusters selected for future translocations. FBCB will provide USFWS with information specific to translocation of each cluster, such as individual IDs, group dynamic, location of recruitment cluster and condition of habitat, in the required quarterly report submitted just prior to the specified translocation event.

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