APPENDIX A INRMP PROJECT FACTSHEETS



Project ID	4A
Project Name	BRUSH MANAGEMENT NEEDS ASSESSMENT
Location(s)	Numerous locations at CSSA, see map
INRMP Reference	Section 4.2.1
Duration	Continued. No activities will be initiated during nesting season for GCWA and BCVI. Activities will only be scheduled between the months of November and January.
Expected Begin Date	November
Expected End Date	January - February
Project Goals	 Assess all fenelines, roads, trails, and fuelbreaks for maintenance needs, if any. Identify roads, fuelbreaks, fencelines that can be converted to habitat. Recommend management treatments to maintain high value fuelbreaks, fencelines, roads or treatments for habitat conversion
Work Description	Work will be conducted with mechanical treatments including the CSSA Cedar Eater and hand tools (chainsaws).
Potential Vendors	CSSA contractor staffCSSA Internal Public Works





Project ID	4B
Project Name	MECHANICAL TREATMENT OF ROADS, TRAILS, FUEL BREAKS, AND SECURITY FENCELINES
Location(s)	Numerous locations at CSSA, see map
INRMP Reference	Section 4.2.1
Duration	Continued. No activities will be initiated during nesting season for GCWA and BCVI. Activities will only be scheduled between the months of November and January.
Expected Begin Date	November
Expected End Date	January - February
Project Goals	 Maintain features that support military mission and/or ecological function. Consolidation of access roads and fuel breaks to decrease footprint in ecologically important areas.
Work Description	Work will be conducted with mechanical treatments including the CSSA Cedar Eater and hand tools (chainsaws). Work will be conducted by CSSA maintenance staff
Potential Vendors	 CSSA contractor staff CSSA Internal Public Works





Project ID	4C
Project Name	PRESCRIBED FIRE OPERATIONS FOR GRASSLAND MANAGEMENT
Location(s)	Grassland and savanna areas, primarily in North Pasture
INRMP Reference	Section 4.2.1
Duration	December – Early February. Burning will be subject to regional and county burn bans and availability of qualified personnel.
Expected Begin Date	December 2006
Expected End Date	February 2007
Project Goals	Maintenance of open grassland areas to support military mission and ecological function. Prevention of juniper colonization
Work Description	Work involves contracting with professional wildland fire burn bosses
Potential Vendors	USFWS Fire Management Office Carl Schwope Fire Management Officer USFWS Balcones Canyonlands National Wildlife Refuge 24518 FM 1431 Marble Falls, TX 78654 512-339-9432 carl_schwope@fws.gov





Project ID	4D
Project Name	SMALL PLOT PRESCRIBE BURNING IN BCVI HABITAT
Location(s)	Two locations suitable for BCVI habitat enhancement activities
INRMP Reference	Section 4.2.1
Duration	Coinciding with Project 4C.
Expected Begin Date	Coinciding with Project 4C
Expected End Date	Coinciding with Project 4C
Project Goals	Simulate natural disturbance regimes associated with BCVI habitat
Work Description	Burning of small live-oak and shin-oak mottes (dbh < 2") to stimulate lateral growth.
Potential Vendors	Coinciding with Project 4C





Project ID	4E
Project Name	MECHANICAL TREATMENT FOR HABITAT MANAGEMENT
Location(s)	Inner Cantonment, East Pasture
INRMP Reference	Section 4.2.1
Duration	2 weeks
Expected Begin Date	January 2007
Expected End Date	
Project Goals	Apply mechanical treatments to habitat areas where burning is not feasible due to safety concerns
Work Description	Simulation of oak topping with mechanical hand tools (loppers and/or powersaws)
Potential Vendors	Contractor staff at CSSA and CSSA maintenance crews (Public Works)





Project ID	4F
Project Name	BRUSH PILE BURNINGS
Location(s)	Various brush piles throughout CSSA
INRMP Reference	Section 4.2.1
Duration	1 week
Expected Begin Date	January 2006
Expected End Date	-
Project Goals	Reduce brush piles, thereby reducing fuel loading and fire risk, and reducing predator habitat
Work Description	Consolidating brush piles into larger piles, followed by burning. Spot burning small piles. A draft burn plan has been drafted by USFWS FMO, and
Potential Vendors	USFWS Fire Management Office • Carl Schwope Fire Management Officer USFWS Balcones Canyonlands National Wildlife Refuge 24518 FM 1431 Marble Falls, TX 78654 512-339-9432 carl_schwope@fws.gov





Project ID	4G
Project Name	MODIFY MOWING REGIMES
Location(s)	Inner Cantonment / East Pasture
INRMP Reference	Section 4.2.1.3
Duration	Continuous
Expected Begin Date	NA
Expected End Date	NA
Project Goals	 Vegetation management on 120 igloos. Fuels reduction to prevent wildland fire intensity Reduction of emissions due to mowing Simulation of burn and low-intensity browse pressure for ecological management of grassland areas.
Work Description	Mowing schedules and blade height of mowing equipment will be altered to achieve project goals. Normal mowing schedules (frequent mowing) will occur at buildings, security fence line corridors, and igloo structures.
Potential Vendors	INTERNAL CSSA / CSSA Public Works





Project ID	4H
Project Name	WETLANDS DELINEATION NEEDS ASSESSMENT
Location(s)	Outer Cantonment, Inner Cantonment, East Pasture
INRMP Reference	4.2.2
Duration	As needed
Expected Begin Date	NA
Expected End Date	NA
Project Goals	 Protection of surface water resources Facilitate Section 404 permitting process for future construction projects
Work Description	Identify future projects that may impact jurisdictional wetlands / Waters of the U.S., and conduct appropriate wetlands
	delineation. Based on field results, reports will be submitted to USACE Fort Worth District Office for concurrence.







Project ID	41
Project Name	PROMOTE OAK WILT AWARENESS FOR CSSA STAFF, CONTRACTORS, HUNTERS
Location(s)	Inner cantonment, North Pasture, East Pasture
INRMP Reference	4.2.4
Duration	5 days
Expected Begin Date	NA
Expected End Date	NA
Project Goals	 Develop environmental education material for identification of oak wilt outbreaks
Work Description	Publications will be developed and distributed to CSSA staff, contractors, and hunters. Publications will show oak wilt manifestations in various species of oaks that are common to CSSA. Field pocket guides will be developed, including oak identification keys relevant to CSSA and oak wilt diagnosis information.
Potential Vendors	CSSA contractor staff





Project ID	4J
Project Name	OAK WILT MANAGEMENT
Location(s)	As needed in inner cantonment, north pasture, and east pasture areas
INRMP Reference	4.2.4
Duration	Continuous
Expected Begin Date	NA
Expected End Date	NA
Project Goals	 Identify infected oak trees/mottes Implement appropriate management actions to isolate outbreaks Prevent spread from infected areas Monitor management activities
Work Description	Oak wilt management will follow an eight- step program devised by the Texas Agricultural Extension Service and is included in Appendix C of the CSSA INRMP. If oak wilt is positively identified in the field, the process proceeds with buffer zone creation, sanitization of buffer zone interior, pruning, tree wound protection, fungicide treatments, and replanting of resistant native tree species
Potential Vendors	Technical advice: • Texas Agricultural Extension Service Implementation of management activities: • CSSA Internal/ Public Works CSSA contractor staff



Project ID	5A
Project Name	BROADCAST SEEDING WITH NATIVE SEED MIX
Location(s)	North Pasture
INRMP Reference	5.2.1
Duration	2 days, March 2007
Expected Begin Date	March 2007
Expected End Date	March 2007
Project Goals	 Enhance food resources for game species with expected benefits for non-game birds. Increase native species abundance and distribution in grassland areas. Possible use as erosion abatement in North Pasture
Work Description	Broadcast seed mixes will include species of importance to turkey, dove, and quail, and will be applied to existing grassland areas in the North Pasture, as well as unimproved road ways. Forbs high in protein and important to deer size, antler development, and healthy fawn production. Forbs will be added to seed mixes. Only native species will be used to encourage better quality habitat for game and non- game species.
Potential Vendors	 SEED SUPPLY: Bamert Seed Company 1897 Muleshoe, Texas 79347 1-800-262-9892 www.bamertseed.com natives @bamertseed.com Douglas W. King Seed Company 4627 Emil Road San Antonio, Texas 78219 1-888-357-3337 www.dkseeds.com Native American Seed Company Junction, Texas 1-800-728-4043 www.seedsource.com
	CSSA Internal / Public Works

CSSA Contractor Staff





Project ID	5B
Project Name	FOOD PLOT INSTALLATION
Location(s)	North Pasture, East Pasture, Inner Cantonment
INRMP Reference	5.2.1
Duration	2 Days
Expected Begin Date	Fall 2006, Spring 2007
Expected End Date	NA
Project Goals	 Provide supplemental food to bait and hold deer in a target area Provide year-round supply of supplemental food Increase native plant abundance and distribution
Work Description	Food plots will be planted according to TPWD recommendations using native species of value to wildlife, specifically deer. 20 food plot locations will be selected, in consultation with CSSA wildlife management committee. Species mix will be native annuals and perennials. 10 food plots will be planted in Fall, 10 in Spring to alleviate stress during winter and summer stress periods.
Potential Vendors	 SEED SUPPLY: Bamert Seed Company 1897 Muleshoe, Texas 79347 1-800-262-9892 www.bamertseed.com natives @bamertseed.com Douglas W. King Seed Company 4627 Emil Road San Antonio, Texas 78219 1-888-357-3337 www.dkseeds.com Native American Seed Company Junction, Texas 1-800-728-4043 www.seedsource.com FOOD PLOT INSTALLATION: CSSA Internal / Public Works CSSA Contractor Staff CSSA Wildlife Management Committee





Project ID	5C
Project Name	SPOTLIGHT CENSUS FOR DEER
Location(s)	North Pasture, East Pasture, Inner Cantonment
INRMP Reference	5.2.2
Duration	1 night occurring annually in September
Expected Begin Date	Fall 2006
Expected End Date	Fall 2006
Project Goals	 Obtain in accurate deer population estimate Provide TPWD staff with an accurate dataset to project the annual harvest Obtain ratios for BUCK:DOE and DOE:FAWN
Work Description	Deer are generally well-distributed in their home ranges during Fall, and easily identified by sex and age class. Each route will be counted 3-4 times to improve reliability of the data, and surveys will not be conducted in unfavorable weather (rain, high wind), or following significant disturbance events along the route (mission-associated training activities, construction, or geophysical surveys involving seismograph work).
Potential Vendors	SPOTLIGHT COUNT: • CSSA Wildlife Management Committee • CSSA contractor staff DEER HARVEST CALCULATION





Project ID	5D
Project Name	BOBWHITE QUAIL, DOVE AND TURKEY POPULATION ESTIMATES
Location(s)	North Pasture, East Pasture, Inner Cantonment
INRMP Reference	5.2.2
Duration	2 days September occurring annually
Expected Begin Date	NA
Expected End Date	NA
Project Goals	 Determine population estimates for Bobwhite quail, turkey, and white-winged dove
Work Description	2-3 surveyors will conduct flush counts of target game bird species. Numbers and species of birds flushed will be recorded. Surveys will not be conducted in unfavorable weather (rain, high wind) or following significant disturbance events along the route (<i>e.g.</i> , mission related training activities, construction, or geophysical surveys involving seismograph work.
Potential Vendors	CSSA contractor staff





Project ID	5E
Project Name	DETERMINATION OF HARVEST NUMBERS
Location(s)	North Pasture, East Pasture, Inner Cantonment
INRMP Reference	5.2.2
Duration	Annual
Expected Begin Date	NA
Expected End Date	NA
Project Goals	 Detremine harvest limits and goals based on spotlight count data for deer Determine appropriate harvest limits for game bird species
Work Description	Deer spotlight count data will be provided to TPWD staff who will deliver a recommended harvest count for deer. Game-bird census data will also be evaluated by TPWD staff and compared to regional data and population trends. Harvest recommendations will be evaluated by the CSSA wildlife Management Committee
Potential Vendors	HARVEST CALCULATIONS: • Mike Reagan DATA EVALUATION • CSSA contractor staff • CSSA Wildlife Management Committee





Project ID	5F
Project Name	MAMMAL PREDATOR CONTROL
Location(s)	North Pasture, East Pasture, Inner Cantonment
INRMP Reference	5.2.3
Duration	TBD
Expected Begin Date	NA
Expected End Date	NA
Project Goals	 Control feral cats
Work Description	
Potential Vendors	





Project ID	5G
Project Name	RED IMPORTED FIRE ANT (RIFA) CONTROL
Location(s)	North Pasture
INRMP Reference	5.2.3
Duration	5 day survey, management actions as needed
Expected Begin Date	July 2007
Expected End Date	July 2007
Project Goals	 Assess RIFA density in sensitive habitat areas Identify areas where RIFA mound density exceed 20 mounds / acre Apply appropriate management techniques for RIFA control
Work Description	Project will be conducted in two phases. The first phase will involve a mound density survey. Areas where mounds exceed 20 mounds / acre will be considered eligible for management actions. These management actions include chemical application or mechanical removal of mounds (agitation). Two tiers of treatment will be applied for RIFA control in eligible areas. The first tier will consider spot treatments of RIFA mounds that are outside of karst buffer areas and on upland sites. The second tier will alter treatment options to lessen or remove environmental effects of treatment in karst buffer zones. These methods will include the use of high temperature water application (3 gallons / mound), applied weekly.
Potential Vendors	Mound survey: • CSSA contractor staff Chemical application:

- CSSA Internal / Public Works
- CSSA contractor staff





Project ID	5H
Project Name	BROWN-HEADED COW BIRD (BHCO) CONTROL
Location(s)	North Pasture
INRMP Reference	5.2.3
Duration	4 months
Expected Begin Date	March 1, 2007
Expected End Date	June 20, 2007
Project Goals	 Reduce nest parasitism of BCVI nests and other neo-topical song birds. Non-target birds removed from trap Operate a clean well managed trap for BHCO. Dispose of BHCO in a humane way (using dry ice / CO2 asphyxiation).
Work Description	THIS PROJECT IMPLEMENTATION IS CONTINGENT ON RENEWAL OF GRAZING AGREEMENTS WITH USDA OR OTHER ENTITIES. FUTURE AGREEMENTS WILL STIPULATE MAINTENANCE AND PLACEMENT OF BHCO TRAP BY USDA-WILDLIFE SERVICES. Traps are monitored daily. Trapped birds are lured to the BHCO trap by "bait" birds. Non-target birds will be removed. Trapped BHCO will be killed with the use of CO2 asphyxiation in a simple paint-bucket mechanism.
Potential Vendors	Oversight and Evaluation: • CSSA contractor staff

Trap Maintenance • USDA Wildlife Services





Project ID	51
Project Name	EUROPEAN STARLING AND GRACKEL CONTROL ASSESSMENT
Location(s)	Inner Cantonment, East Pasture
INRMP Reference	5.2.3
Duration	1 day February 2007
Expected Begin Date	NA
Expected End Date	NA
Project Goals	 Assess buildings that would be suitable for European starling and grackle exclusion structures.
Work Description	A pedestrian survey of buildings will be conducted to identify buildings suitable for exclusion structures. CSSA contains some historical buildings, and modifications to these buildings will not occur.
Potential Vendors	CSSA contractor staff





Project ID	5J
Project Name	FISH POPULATION ANALYSIS
Location(s)	Inner Cantonment Ponds
INRMP Reference	5.2.4
Duration	2 days Spring 2007
Expected Begin Date	NA
Expected End Date	NA
Project Goals	 Conduct a fish population census at 2 ponds in inner cantonment Classify fish by species, size, and habit Classify species as "beneficial" or "non-beneficial" Use electroshocking techniques Map subsurface ponds at CSSA and classify surface type. Provide recreational fishing through the wildlife management committee a list of current species within inner cantonment ponds.
Work Description	Use electroshocking techniques to census fish populations. Work involves shocking fish and classification based on species type, size, habit, and suitability. Beneficial species in Texas ponds include channel and blue catfish, larg mouth bass, bluegill, redear sunfish, hybrid striped bass, flathead minnow, and threadfin shad. Undesirable species include gizzard shad, golden shiners, crappie, and flathead catfish.
Potential Vendors	CSSA contractor staff





Project ID	5K
Project Name	POND STOCKING
Location(s)	Inner Cantonment
INRMP Reference	5.2.4
Duration	NA
Expected Begin Date	NA
Expected End Date	NA
Project Goals	 Stock ponds with an appropriate mix of balanced and desirable fish populations. Define recreational goals with the wildlife management committee Enhance ecological health of ponds Enhance recreational opportunities for the non- consumptive fishing program
Work Description	Based on fish population analysis (Project 5J), the appropriate mix of stocking species will be purchased for ponds utilized for recreational fishing within the inner cantonment. Stocking rates will be determined by the results of the fish population analysis, as well as management objectives defined by the wildlife management committee.
Potential Vendors	 A.E. Wood Fish Hatchery 507 Staples Road San Marcos, Texas 78666 512-353-0572





Project ID	6A
Project Name	BCVI POPULATION SURVEY AND CORE/NON CORE HABITAT MAPPING
Location(s)	Inner Cantonment, North Pasture, East Pasture
INRMP Reference	6.2.3
Duration	2007 Breeding/Nesting season
Expected Begin Date	April 2007
Expected End Date	July 2007
Project Goals	 Continue assessment of BCVI populations at CSSA Use methods in line with USFWS protocols Use methods in line with Camp Bullis ongoing program
Work Description	Presence/ Absence surveys in marginal habitat areas and point count surveys in previously identified habitat areas for BCVI.
Potential Vendors	CSSA contractor staff (At least one surveyor will hold a USFWS ESA permit for conducting surveys for BCVI., all surveyors will have prior experience with BCVI surveys).





Project ID	6B
Project Name	GCWA POPULATION SURVEY AND CORE/NON CORE HABITAT MAPPING
Location(s)	Inner Cantonment, North Pasture, East Pasture
INRMP Reference	6.2.3
Duration	2007 Breeding/Nesting season
Expected Begin Date	March 2007
Expected End Date	July 2007
Project Goals	 Continue assessment of GCWA populations at CSSA Use methods in line with USFWS protocols Use methods in line with Camp Bullis ongoing program
Work Description	Presence/ Absence surveys in marginal habitat areas and point count surveys in previously identified habitat areas for GCWA.
Potential Vendors	CSSA contractor staff (At least one surveyor will hold a USFWS ESA permit for conducting surveys for GCWA., all surveyors will have prior experience with GCWA surveys).





Project ID	6C
Project Name	BCVI HABITAT ENHANCEMENTS
Location(s)	North Pasture
INRMP Reference	6.2.2
Duration	Outside of breeding season for BCVI or GCWA
Expected Begin Date	Fall 2007
Expected End Date	Fall 2007
Project Goals	 Enhance existing habitat areas for BCVI Modifications to habitat to achieve 30 - 60% shrub cover (0 - 2 meter) with a relatively open emergent canopy layer (an occasional high perch tree)
Work Description	 Treatment with had tools (loppers, powersaws) of small oak mottes to stimulate shrubby growth Small plot prescribed burns with drip torches. (ALL RX BURN OPERATIONS WILL BE CONDUCTED BY USFWS FMO PERSONNELL.)
Potential Vendors	Mechanical treatment: • CSSA contractor staff Rx Burn Operations: • USFWS FMO personnel





Project ID	6D
Project Name	GCWA HABITAT ENHANCEMENTS
Location(s)	North Pasture, East Pasture
INRMP Reference	6.2.3
Duration	Outside of breeding season for GCWA or BCVI
Expected Begin Date	NA
Expected End Date	NA
Project Goals	 Enhance existing GCWA habitat areas Selective thinning of ashe juniper (mono-culture) shrub vegetation to enable native hardwood growth and regeneration Identification of high value hardwood trees "choked" by ashe junipers. These trees include various oaks and cedar elm.
Work Description	Selective thinning will involve the use of hand tools (primarily powersaws Hardwood trees, such as cedar elms, are important food source for invertebrates (prey for GCWA), therefore, selective thinning of ashe junipers that reduce canopy exposure of high value trees will be removed.
Potential Vendors	CSSA contractor staff





Project ID	6E
Project Name	KARST MANAGEMENT
Location(s)	Inner cantonment
INRMP Reference	6.2.5
Duration	Fall 2007
Expected Begin Date	NA
Expected End Date	NA
Project Goals	 Provide protective management measures for areas within karst buffer zones Establish special karst management buffers within 50' of karst features Evaluate erosional features within buffer zones Native outplantings and seeding within buffer zones Evaluation of RIFA presence (and density of mounds) within buffer zones.
Work Description	Karst features identified in the 2002 Veni survey will be buffered (50-foot) and pin flags placed in the field. Appropriate field assessment within buffer zones will follow with subsequent management actions.
Potential Vendors	CSSA contractor staff





Project ID	7A and 7B
Project Name	HUNTING AND FISHERIES DATABASE DEVELOPMENT
Location(s)	Inner cantonment, North Pasture, East Pasture
INRMP Reference	7.2.3 and 7.2.4
Duration	NA
Expected Begin Date	NA
Expected End Date	NA
Project Goals	 Track hunting and fishing takes to assess harvest and population data. Provide CSSA a long term mechanism for tracking consumptive and non- consumptive recreational activities Provide multi-year trend analysis of natural resources and natural resource participation.
Work Description	Past hunting data will be integrated into a database, future hunting data will be integrated, as well. Fishing data (species and size of catch) will be reported, as well. Notebooks will be provided in suitable weather proof containers at stock ponds in the inner cantonment to allow for recording of fish catches.
Potential Vendors	CSSA contractor staff

