NATIONAL FOREST MANAGEMENT ACT CONSISTENCY

The Boswell Creek Watershed Healthy Forest Initiative Project is consistent with National Forest Management Act (NFMA) requirements (36 CFR 219.27) regarding resource protection, vegetative manipulation, silvicultural practices, even-aged management, riparian areas, soil and water, and diversity.

The NFMA requirements for resource protection (36 CFR 219.27(a)) state that all management prescriptions shall:

(1) Conserve soil and water resources and not allow significant or permanent impairment of the productivity of the land;
The Proposed Action, with implementation of all of project design standards, which includes Best Management practices designed to assure compliance with the Clean Water Act and protection of soil and water resources, would fully comply with this requirement. The Cumulative Watershed Effects analysis, contained in the Project Files, indicates that the project activities present a low risk for adverse cumulative impacts on water quality or beneficial uses in the Boswell Creek watershed.

(2) Consistent with the relative resource values involved, minimize serious or long-lasting hazards from flood, wind, wildfire, erosion, or other natural physical forces unless these are specifically excepted, as in wilderness;
The objectives of the Proposed Action are consistent with management direction contained in the Revised Land and Resource Management Plan for the National Forests and Grasslands in Texas. This project's purposes are to reduce hazardous fuels and to reduce the southern pine beetle hazard. Fuel reductions provide greater effectiveness in fire management, greater safety for firefighters and the public, and protection and improvement of habitat for the endangered RCW. Reduced SPB hazard on the pine-dominated uplands lessens the likelihood of accelerated losses when infestations do occur. The other physical factors of the environment would not be altered by the proposal, although the potential for reduced soil productivity resulting from a wildfire would also be reduced through implementation of the Proposed Action.

(3) Consistent with the relative resource values involved, prevent or reduce serious, long lasting hazards and damage from pest organisms, utilizing principles of integrated pest management. Under this approach all aspects of a pest-host system should be weighed to determine situation-specific prescriptions that may utilize a combination of techniques including, as appropriate, natural controls, harvesting, use of resistant species, maintenance of diversity, removal of damaged trees, and judicious use of pesticides. The basic principle in the choice of strategy is that, in the long term, it be ecologically acceptable and compatible with the forest ecosystem and the multiple use objectives of the plan;
The Proposed Action is consistent with the principles of integrated pest management and is compatible with multiple use objectives and long-term forest and ecosystem health. One of the express purposes of the project is to reduce SPB hazard by removing pine trees and increasing the spacing between trees through thinning.

(4) Protect streams, streambanks, shorelines, lakes, wetlands, and other bodies of water as provided under paragraphs (d) and (e) of this section;
The Proposed Action includes project design standards which specifically insure protection of all water-related resources. The proposal employs all applicable Best Management Practices to assure compliance with the Clean Water Act. All intermittent and perennial streams will be incorporated into Management Area 4, Streamside Management Zones, as described in the Plan. No thinning will be done in MA-4 and prescribed fire will be used in accordance with the Plan's standards and guidelines for the management area to assure protection of aquatic resources. Ephemeral streams will have minimum 33-foot protection zones identified on the ground.

(5) Provide for and maintain diversity of plant and animal communities to meet overall multiple-use objectives, as provided in paragraph (g) of this section;
Detailed analysis has been completed for threatened, endangered and Forest Service sensitive wildlife species in a Biological Evaluation (see Project Files), with the determination made that the Proposed Action "may effect, but is not likely to adversely affect" red-cockaded woodpecker and there would be "no effect" on bald eagle, piping plover, American burying beetle, American Chaffseed, American alligator, Houston toad, and Louisiana black bear. Analysis was also completed for management indicator species (MIS) (see Project Files), with the determination that the proposal would have little effect on any of the species. Those species that preferred somewhat more open stands would be favored, with slight decreases in habitat for species that preferred closed stands. The Proposed Action with its design standards will provide for and maintain the full diversity of plant and animal communities and their habitat, and help insure their long-term viability through activities designed to improve forest health and reduce the potential for high intensity wildfires and losses to southern pine beetle.

(6) Provide for adequate fish and wildlife habitat to maintain viable populations of existing native vertebrate species and provide that habitat for species chosen under Sec. 219,19 is maintained and improved to the degree consistent with multiple-use objectives established in the plan;
See answer to #5.

(7) Be assessed prior to project implementation for potential physical, biological, aesthetic, cultural, engineering, and economic impacts and for consistency with multiple uses planned forthe general area;
As described in the above responses, the Proposed Action is consistent with management direction and objectives for the Planning Area contained in other planning documents. In addition, a team of resource specialists (hydrologist, silviculturist, fuels planner, botanists, wildlife biologists, archaeologists, landscape architect/recreation planner, and transportation planner) have conducted surveys of conditions within the Planning Area and completed project analyses based upon field observations and information contained in the Forest GIS database. This information has been brought together in an interdisciplinary setting to develop the Proposed Action, with its project design standards, in order to best achieve the multiple use objectives for the Boswell Creek Watershed Project.

(8) Include measures for preventing the destruction or adverse modification of critical habitat for threatened and endangered species;

There is no critical habitat for threatened and endangered species in the project vicinity. As described under #5, the Biological Evaluation (BE) concluded that the Proposed Action "may effect, but is not likely to adversely affect" the red-cockaded woodpecker. The Proposed Action would result in beneficial effects to the RCW by improving the long-term sustainability of habitat by reducing the potential for loss of habitat due to southern pine beetle infestations and wildfire (see Project Files).

(9) Provide that existing significant transportation and utility corridors and other significant right-of-ways that are capable and likely to be needed to accommodate the facility or use from an additional compatible right-of-way be designated as a right-of-way corridor. Subsequent right-of-way grants will, to the extent practicable, and as determined by the responsible line officer, use designated corridors;
Not applicable. The existing transportation network needed to serve the area is in place, with no additions or right-of-way grants needed or anticipated.

(10) Ensure that any roads constructed through contracts, permits, or leases are designed according to standards appropriate to the planned uses, considering safety, cost of transportation, and effects upon lands and resources;
The needed road system is in place and no new roads would be constructed under the Proposed Action.

(11) Provide that all roads are planned and designed to re-establish vegetative cover on the disturbed area within a reasonable period of time, not to exceed 10 years after the termination of a contract, lease or permit, unless the road is determined necessary as a permanent addition to the National Forest Transportation System, and
Not applicable as no new roads will be constructed. Several roads, with existing templates, have been identified for use during project activities and would be hydrologically stabilized.

(12) Be consistent with maintaining air quality at a level that is adequate for the protection and use of National Forest System resources and that meets or exceeds applicable Federal, State and/or local standards or regulations.
Smoke production related to the predicted prescribed burning would be within the National Ambient Air Quality Standards for criteria pollutants. To conduct the prescribed burns a Burn Plan would first be written that would have a smoke management plan that complies with state and federal regulations.

The NFMA requirements for vegetative manipulation (36 CFR 219.27(b)) state that management prescriptions that involve vegetative manipulation of tree cover for any purpose shall:

(1) Be best suited to the multiple-use goals established for the area with potential environmental, biological, cultural resource, aesthetic, engineering, and economic impacts considered in this determination.
The Proposed Action is consistent with management direction for lands within Management Areas 2 and 4. The proposed treatments are designed to improve forest health, and reduce fuel loading and fire behavior, thereby providing for protection of a multitude of resource values including: private structures within the project vicinity, wildlife habitat for the red-cockaded

woodpecker, and streamside management zones. The Proposed Action is responsive to the project Purpose and Need objectives while protecting wildlife, watershed, visual resource and cultural values as documented in the Specialist Reports, the Environmental Impacts section of the EA, and the BE.

(2) Assure that lands can be adequately restocked, except where permanent opening are created for other uses.
The Proposed Action does not propose to create any permanent openings. All harvest prescriptions consist of commercial thinning. Since none of prescriptions are regeneration harvests, no openings will be created through harvest activities.

(3) The proposal is not chosen primarily because it returns the greatest amount of dollars or timber, although these factors shall be considered.
The Proposed Action responds to the Purpose and Need objectives of: reduced risk of high intensity wildfire, improved forest health through SPB hazard reduction, and providing for protection/development of red-cockaded woodpecker habitat. The proposal was not based upon greatest returns of dollars or timber.

(4) Be chosen after considering potential effects on residual trees and adjacent stands.
The stated objectives of the Proposed Action are to improve forest health by reducing SPB hazard and fuels reduction to reduce the risk of high intensity wildfires. Selection of residual trees for retention in prescriptions focuses on selection of the healthiest pines in the young stands and the best pines for RCW habitat in the older stands. The objective of the treatment is to reduce stand basal area to that which provides for healthy and sustainable stands, thereby reducing the potential for competition and SPB-induced mortality, which contributes to heavy accumulations of fuel and results in fire behavior with the potential to cause unacceptable stand and resource damage.

(5) Avoid permanent impairment of site productivity and ensure conservation of soil and water resources.
Implementation of the Proposed Action, as shown in the Cumulative Watershed Effects analysis, does not result in unacceptable cumulative effects. Additionally, implementation of the project design standards identified as part of the Proposed Action, Best Management Practices and site-specific erosion control measures assure that soil and water resources and site productivity are not impaired.

(6) Provide desired effects on water quality, quantity, wildlife and fish habitat, regeneration of desired tree species, forage production, recreation uses, aesthetic values and other resource yields.
As detailed in the preceding discussions, the Specialists Reports and Environmental Impacts section of the EA, implementation of The Proposed Action provides the best balance in providing for all resource needs and achieving the project's purpose and need.

(7) Be practical in terms of transportation and harvest requirements.

The Proposed Action utilizes an existing transportation system and standard harvest methods and equipment, which are both practical and economical, and entails no special or unusual circumstances.

The NFMA requirements for silvicultural practices (36 CFR 219.27 (c)(1)) state that the following management requirements apply to timber harvest and cultural treatments:

(1) No timber harvest shall occur on lands classified as not suited for timber production except for salvage sales, sales necessary to protect other multiple-use values or to meet other objectives.
The Proposed Action only proposes harvest of timber on lands that are suitable for timber production. As stated in the Purpose and Need and the responses to the above factors, the primary purpose of the treatments proposed in the Proposed Action are to reduce fire behavior and improve forest health by reducing SPB hazard, with the production of timber a by-product of accomplishing these objectives.

(2) When trees are cut to achieve timber production objectives, the cuttings shall be made in such a way as to assure that the technology and knowledge exists to adequately restock the lands within 5 years after final harvest.
The Proposed Action is consistent with this requirement as discussed under the NFMA vegetative manipulation factor (b)(2) above; however, timber production is a by-product, not the primary objective of the proposed treatments.

(3) Cultural treatments such as thinning, weeding, and other partial cutting may be included in the forest plan where they are intended to increase the rate of growth of remaining trees, favor commercially valuable tree species, favor species or age classes which are most valuable for wildlife, or achieve other multiple-use objectives.
As stated in the Purpose and Need, the objectives of the commercial thinning proposed under The Proposed Action are to reduce fire behavior and improve forest health to, in part, benefit wildlife habitat.

(4) Timber harvest cuts designed to regenerate an even-aged stand of timber shall be carried out in a manner consistent with the protection of soil, watershed, fish and wildlife, recreation, and aesthetic resources, and the regeneration of the timber resource.
The Proposed Action does not propose any regeneration harvest; only intermediate harvests that utilize commercial thinning prescriptions are proposed.

(5) Timber harvest and other silvicultural treatments shall be used to prevent potentially damaging populations of forest pest organisms and shall not be applied where likely to increase stand susceptibility to pest-caused damage levels.
The Proposed Action is consistent with this factor. Increasing forest health and reducing southern pine beetle hazard is part of the project's stated Purpose and Need. Thinning would reduce stand susceptibility to SPB.

The NFMA requirements for even-aged management (36 CFR 219.27(d)) state that when openings are created in the forest by the application of even-aged silviculture, the following management requirements apply:

(1) Openings shall be located to achieve the desired combination of multiple-use objectives…
(2) Individual cut blocks, patches or strips shall conform to the maximum size limits to be cut inone harvest operation...
Neither of these requirements applies to the Boswell Creek Watershed Healthy Forest Initiative Project since no openings will be created under the commercial thinning prescriptions proposed under the Proposed Action.

The NFMA requirements for riparian areas (36 CFR 219.27(e)) state that: **Special attention shall be given to land and vegetation for approximately 100 feet from the edges of all perennial streams, lakes, and other bodies of water. This area shall correspond to at least the recognizable area dominated by the riparian vegetation. No management practices causing detrimental changes in water temperature or chemical composition, blockages of watercourses, or deposits of sediment shall be permitted within these areas which seriously and adversely affect water conditions or fish habitat. Topography, vegetation type, soil, climatic conditions, management objectives, and other factors shall be considered in determining what management practices may be performed within these areas or the constraints to be placed upon their performance.**

Perennial and intermittent streams in the project are managed under the standards and guidelines for Management Area 4, Streamside Management Zones. These zones will be identified according to the direction in the Plan. No thinning will take place in MA-4 and prescribed fire will be used in accordance with the direction for MA-4. T. Implementation of BMPs would assure that erosion was minimized and water quality standards met.

The NFMA requirements for soil and water (36 CFR 219.27(f)) states that: **Conservation of soil and water resources involves the analysis, protection, enhancement, treatment, and evaluation of soil and water resources and their responses under management and shall be guided by instructions in official technical handbooks. These handbooks must show specific ways to avoid or mitigate damage, and maintain or enhance productivity on specific sites. These handbooks may be regional in scope, or where feasible, specific to physiographic or climatic provinces.**

Implementation of Best Management Practices and design criteria, which are tailored to on the ground, site-specific conditions are intended to assure protection of soil and water resources.

The NFMA requirements for diversity (36 CFR 219.27(g)) state that: **Management prescriptions, where appropriate and to the extent practicable, shall preserve and enhance the diversity of plant and animal communities, including endemic and desirable naturalized plant and animal species, so that it is at least as great as that which would be expected in a natural forest and the diversity of tree species similar to that existing in the planning area. Reductions in diversity of plant and animal communities and tree species**

from that which would be expected in a natural forest, or from that similar to the existing diversity in the planning area, may be prescribed only where needed to meet overall multiple-use objectives. Planned type conversion shall be justified by an analysis showing biological, economic, social, and environmental design consequences, and the relation of such conversions to the process of natural change.

As stated in several of the above responses the biological diversity of plant and animal communities will be retained within the Planning Area. Project design standards are included in the management prescriptions to maintain a diversity of tree species and maintain and enhance habitat conditions for the array of species found within the Planning Area. The Proposed Action does not propose any type conversions, but is designed to improve forest health and reduce fuel loading in order to avoid the potential of a high intensity wildfire, which would likely have adverse consequences to plant and animal diversity within the Planning Area.