SUSTAINABLE FOREST MANAGEMENT IN THE CONTEXT OF DoD FACILITIES

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In general terms, sustainable forest management aims to ensure that the goods and ecosystem services provided by forests are not diminished. On DoD lands, this must be accomplished in a manner that is consistent with the specific mission of each facility. Presented here is a case study of forest management needs and challenges in a specific location, the Marine Corps Base at Camp Lejeune (MCBCL), North Carolina. Management of diverse stands of longleaf pine at the MCBCL is particularly focused on maintenance of species diversity and habitat for the endangered red-cockaded woodpecker. Management strategies include frequent, low intensity prescribed fire and attention to the unique, uneven-aged structure of longleaf pine populations. Adaptive management is focused on unknowns associated with the behavior and reproduction of the woodpecker and the effects of different fire regimes on its habitat. Much of the MCBCL is dominated by second-growth; even-aged stands of loblolly pine that were planted on land once forested by both longleaf and loblolly pines. The primary management goals in these forests are restoration of historic forest composition, particularly longleaf pine, and restoration of woodpecker habitat where that is feasible and appropriate. Such restoration has historically included a range of practices including clear-cutting and forest thinning, usually associated with longleaf pine planting. Treatments may also include mechanical fuel manipulations to facilitate restoration of the natural low intensity, high frequency fire regime. In these situations, adaptive management focuses on uncertainties associated with effects of different harvest protocols on species diversity and habitat, and the challenges of restoring historical fire regimes. In both of these management situations, the impacts of military maneuvers, large-scale disturbance such as hurricanes and invasive non-native species are matters of concern.