

ROAD EFFECTS AND SOURCE HABITAT TRENDS FOR TERRESTRIAL VERTEBRATES OF CONCERN IN THE INTERIOR COLUMBIA BASIN^{TWS}

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We assessed habitat trends and summarized knowledge about species-road relations for 91 species of terrestrial vertebrates that were of viability concern within 145 million acres of public and private lands in the Interior Columbia Basin. Our assessment was conducted as part of the Interior Columbia Basin Ecosystem Management Project. Our results indicated that habitats for species associated with old-forest structural stages, with native grasslands, or with native shrublands have undergone strong, widespread decline. Implications of these results for managing old-forest structural stages include the potential to (1) conserve habitats in areas where decline in old forests has been strongest; (2) use silvicultural manipulations in mid-seral forests to accelerate development of late-seral stages; and (3) accommodate fire and other disturbance regimes in all forested structural stages to hasten development and improvement in the amount, quality, and distribution of old-forest stages. Implications of our results for managing rangelands include the potential to (1) conserve native grasslands and shrublands that have not undergone large-scale reduction in composition of native plants; (2) control or eradicate exotic plants on native grasslands and shrublands where invasion potential or spread of exotics is highest; and (3) restore native plant communities, using intensive range practices, where potential for restoration is highest. Our analysis also indicated that >70 percent of the 91 species are affected negatively by one or more factors associated with roads. Comprehensive mitigation of road effects will require a substantial reduction in the density of existing roads as well as effective control of road access in relation to management of livestock, timber, recreation, hunting, trapping, mineral development, and other human activities.