

WEBINAR

Renewable energy development and terrestrial and aquatic wildlife conservation: the new frontier

Thursday, December 13th 2012, 9:00 AM Pacific / 10:00 AM Mountain / 11:00 AM Central

Dr. Jeff Lovich, USGS, Southwest Biological Science Center, will present a review of peer-reviewed published information on impacts from renewable energy development in the Desert Southwest on non-volant (non-flying) terrestrial and aquatic wildlife. Although there is little published available data to evaluate effects on non-flying species, some conclusions can be drawn from existing studies and similar analog activities (e.g., large scale oil and gas mining). Dr. Lovich will also discuss additional research needs related to facility design effects, the efficacy of site selection criteria, and the cumulative effects of utility-scale renewable energy development on wildlife populations.



Summary: Renewable energy development is experiencing a renaissance particularly in the Desert Southwest United States where wind and especially solar energy potential is high. The region is characterized by high biodiversity including threatened and sensitive species like Agassiz's desert tortoise. We surveyed the peer-reviewed scientific literature for information on the known and potential effects of utility-scale renewable energy development and operation on non-flying terrestrial and aquatic wildlife. In comparison to the large body of literature on the effects of wind energy facilities on birds and bats, very little is available to evaluate the effects of wind or solar facilities on other wildlife. Effects due to construction and eventual decommissioning of utility-scale renewable energy facilities include direct mortality, environmental impacts of fugitive dust and dust-suppressants, destruction and modification of habitat, and offsite impacts related to construction material acquisition, processing and transportation. Known and potential effects due to operation and maintenance of facilities include habitat

fragmentation and barriers to gene flow, as well as effects due to noise, vibration, electromagnetic field generation, microclimate change, pollutant spills, water consumption, predator attraction, and increased fire risk.