

The Department of Environmental Studies at San José State University is pleased to present a public research presentation:

Wednesday, December 1, 2021

12:30 PM – 1:45 PM

<https://sjsu.zoom.us/j/5858275843> pw: ENV@SJSU

## Dr. Dustin Mulvaney

*Professor, Department of Environmental Studies,  
San José State University*



### Utility scale solar development and energy sprawl: How energy policy and land use choice shapes environmental permitting and habitat mitigations

**Abstract:** In an effort to address climate change, California enacted a renewable energy portfolio standard that is driving a market for significant amounts of renewable energy deployment. Renewable energy development as a result is a leading cause of land use change in states like California and Nevada, much of which is occurring on lands that are important for threatened and endangered species. This talk will explain the drivers of these land use choices and the repercussions for habitat, permitting, construction times, and discuss the challenges with compensatory mitigations where projects impact lands with high biodiversity. A review of 16 case studies of utility scale solar projects indicate that developing utility-scale solar on low biodiversity value land resulted in shorter permitting timelines and required less compensatory mitigation. But research interviews also raise important questions about drivers attracting developers to high biodiversity lands as well as the effectiveness of using mitigations to offset impacts to high quality habitat.

*Dr. Mulvaney's research focuses on the social and environmental dimensions of food and energy systems, where he researches questions about innovation, emerging technologies and environmental change. His research on solar energy commodity chains is synthesized in his book entitled *Solar Power, Innovation, Sustainability, and Environmental Justice* (University of California Press, 2019). His new textbook *Sustainable Energy Transitions: Socio-Ecological Dimensions of Decarbonization* with Palgrave-MacMillan/Springer was published in December 2020.*

