

PhD Dissertation Defense

Candidate: Jill Lewandowski

Defense Date: April 15, 2015

Title: Transforming Conflict into Effective Action: A Case Study on the Effects of Anthropogenic Sound on Marine Mammals

Committee: Dr. Lee Talbot (Director), Dr. Al Fuertes, Dr. Joseph Maxwell, Dr. Chris Parsons, Dr. Alan Thornhill (USGS)

ABSTRACT

Like many wicked environmental problems of our time, marine sound and its potential effects on marine mammals is characterized by high levels of scientific uncertainty, diversified values across many stakeholder groups, political and regulatory complexities, a continually evolving ecological and social environment. Further, the history of the conflict and the relationships between major actors has now mired the issue firmly in identity conflict where prejudices lead to avoidance of working together. What results is continuing controversy, failed management decisions, litigation and an increasing frustration by all parties on why a better solution cannot be found.

Ultimately, the wickedness of the issue is not about the science, nor will the science ever tame the issue on its own. Rather, the issue is intractable because of the conflict *between* people about the most appropriate path forward. It is then imperative to understand, address, and transform this conflict in order to move off the decision carousel toward improved conservation outcomes and sustainable decisions for all.

This research used an explanatory case study approach to quantitatively and qualitatively investigate the context and reasoning underlying conflict on this issue. Three methods were used in order to triangulate the data, and thus add rigor, including a document review of 230 publications, semi-structured interviews with 58 stakeholders and participant review of selected analyses. Data elucidate how different stakeholder groups define the problem and potential solutions, how they see their role and view the role of other stakeholders, specific experiences that increased or reduced conflict, and design preferences for a collaborative effort. These data are combined with conflict transformation principles to provide recommendations for a collaborative, transformative framework designed to help build capacity for groups to work together and ultimately tame this wicked issue.