A case for conservation of outer space: missions, human exploration, and protection of the lunar environment

Sarah E. Swiersz¹

¹ Planetary Science Group, University of Central Florida, FL 32816 sswiersz@Knights.ucf.edu

Abstract. Further exploration, mining, and even colonization of outer space are becoming less a science-fiction fantasy and more an approaching reality, especially as a robust space exploration industry rapidly develops—and the Moon is the first stop of it all, the gateway to the solar system. Scientific, government, and industry interests are becoming both increasingly differentiated and entangled. Amidst these forces, there is a concern for maintaining the integrity of the lunar environment. This presentation provides an outline of the issue of conservation of the lunar environment and some practical suggestions for conservation strategies. While this presentation develops a case for implementing conservation strategies into missions and human exploration endeavors on the Moon, it does not presuppose a need for conservation: A brief historical analysis of the concept of conservation provides a tool for deconstructing how the need for conservation of outer space environments ultimately results from the political, socio-cultural, and economic frameworks within which we pursue space exploration.