**Ecosystem Type: BARREN/ROCK AND SAND**

**Category: Natural Hazard Mitigation**

1. **Materials**

***Supplier*** – no literature review available

***Driver*** – not applicable

***Demander*** – not applicable

1. **Nutrition**

***Supplier*** – not applicable

***Driver*** -not applicable

***Demander*** - not applicable

1. **Energy**

***Supplier*** – not applicable

***Driver*** – not applicable

***Demander*** – not applicable

1. **Mediation of Waste, Toxics, and Other Nuisances**

***Supplier*** – no literature review available

***Driver*** – not applicable

***Demander*** – not applicable

1. **Mediation of Flows**

***Supplier*** – Desert ecosystems exchange dust particles with each other, which contain nutrients like phosphorus to support plant productivity (Okin et al., 2004). The capture of particles is an important service to mitigate the effects of dust storms.

***Driver*** – not applicable

***Demander*** – not applicable

1. **Maintenance of Physical, Chemical, and Biological Indicators**

***Supplier*** – A study found that shrublands that had previously been burnt retained more nutrients than those species not burnt (Negi, Sharma, and Lepcha, 1991). This indicates that shrubs can regulate the chemicals that might leach from natural hazards.

***Driver*** – not applicable

***Demander*** – not applicable

1. **Spiritual, Symbolic, Religious, and Social Experiences**

***Supplier*** – not applicable

***Driver*** – not applicable

***Demander*** – not applicable

1. **Physical and Intellectual Interactions w/ Biota, Ecosystems, and Land/Seascapes**

***Supplier*** – not applicable

***Driver*** – not applicable

***Demander*** - not applicable

**Sources:**

Okin, G.S. et al. (2004) Impact of desert dust on the biogeochemistry of phosphorus in terrestrial ecosystems. *Global Biogeochemical Cycles, 18*(2), GB2005. DOI: 10.1029/2003GB002145.