**Ecosystem Type: SCRUBLANDS/SHRUBLANDS**

**Category: Clean Air**

1. **Materials**

***Supplier*** – Shrubland ecosystems provide materials that support clean air because they have the ability to accumulate atmospheric nitrogen deposition that occurs from expanding population (Zorba-Denison, 2006) as well as carbon (Feng et al., 2013).

***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*** – not applicable

***Driver*** – not applicable

***Demander*** – not applicable

1. **Mediation of Flows**

***Supplier*** – not applicable

***Driver*** – not applicable

***Demander*** – not applicable

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

***Supplier*** – not applicable

***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:**

Feng, X. et al. (2013) How ecological restoration alters ecosystem services: an analysis of carbon sequestration in China’s Loess Plateau. *Scientific Reports, 3,* 2846. DOI: 10.1038/srep02846.

Zorba-Denison, G. (2006) “Soil nutrient cycling and storage in semi-arid shrubland ecosystems exposed to high N deposition in Southern California.” Unpublished dissertation, California State University San Marcos, San Marcos, California. Retrieved from <http://csusm-dspace.calstate.edu/handle/10211.3/139979>. [abstract only]