**Ecosystem Type: SCRUBLANDS/SHRUBLANDS**

**Category: Climate Stabilization**

1. **Materials**

***Supplier*** – Shrubland ecosystems provide materials that support climate stabilization because of their ability to accumulate and store carbon (Feng et al., 2013; Ward et al., 2014).

***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*** –

1. **Mediation of Flows**

***Supplier*** – Shrublands help maintain the flow of sediment into waterways (Ausseil and Dymond, 2010).

***Driver*** – not applicable

***Demander*** – not applicable

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

***Supplier*** – Shrubs provide a stable climate for the growth of seedlings for trees like oak because of their low, lightly shaded understory (Li and Ma, 2003).

***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.

Li, Q. and Ma, K. (2003) Factors affecting establishment of *Quercus liaotungensis* Koidz. Under mature mixed oak forest overstory and in shrubland. *Forest Ecology and Management, 176*(1-3), 133-146. <https://doi.org/10.1016/S0378-1127(02)00274-8>. [abstract only]

Ward, A. et al. (2014) A global estimate of carbon stored in the world’s mountain grasslands and shrublands, and the implications for climate policy. *Global Environmental Change, 28*, 14-24. <https://doi.org/10.1016/j.gloenvcha.2014.05.008>.