

Data sources

Once we had developed the list of potential cross-boundary resource conflicts summarized in table 1 (page 28) we identified and harvested corresponding geospatial data from the following readily available data sources:

- “Streets” GIS layer, ESRI (Economic and Social Research Institute) Map and Data DVD, dated 2005.
- National Land Cover Database (2006). U.S. Geological Survey. Available at <http://www.mrlc.gov/nlcd2006.php>.
- National Park Service. 2011. NPScape Upstream Watershed Delineation Processing SOP. Upstream Watershed Analysis for Select National Park Units. National Park Service, Natural Resource Program Center, Fort Collins, Colorado, USA. Available at <https://irma.nps.gov/Reference.mvc/Profile?Code=2173077>.
- National Hydrography Dataset—NHDPlus. U.S. Geological Survey. Available at <http://www.horizon-systems.com/nhdplus/data.php>.
- State Soil Geographic (STATSGO) Database, May/2011. USDA Natural Resources Conservation Service. Available at <http://soildatamart.nrcs.usda.gov/USDGSM.aspx>.
- National Wetlands Inventory (NWI). U.S. Fish and Wildlife Service. Available at <http://wetlands.fws.gov>.
- Critical Habitat Portal. U.S. Fish and Wildlife Service. Downloaded 3 August 2011 at <http://criticalhabitat.fws.gov/crithab/>.
- Protected Areas Database of the United States (PAD-US), version 1.2. U.S. Geological Survey, Gap Analysis Program. Available at <http://www.protectedlands.net>.
- Theobald, D. M. 2010. Estimating natural landscape changes from 1992 to 2030 in the conterminous U.S. *Landscape Ecology* 25:999–1011.
- Theobald, D. M., S. E. Reed, K. Fields, and M. Soulé. 2012. Connecting natural landscapes using a landscape permeability model to prioritize conservation activities in the United States. *Conservation Letters* 5(2):123–133.
- Defense Meteorological Satellite Program. NOAA National Geographic Data Center, Earth Observation Group. Available from <http://www.ngdc.noaa.gov/dmsp>.
- National Elevation Dataset (NED) 30-meter digital elevation model (DEM). Available at <http://ned.usgs.gov/>.

Many of these data sources needed to be used in combination to derive useful information for the resource conflict analysis. For example, the NPScape landscape dynamics monitoring project supplied roads data for use in conjunction with National Land Cover data to determine roadless natural areas. Likewise, NPScape data coupled with National Hydrography Data Sets allowed us to delineate upstream watersheds. We combined STATSGO soils data and digital elevation models with the logic of BLM’s Mojave and Central Basin and Range Rapid Ecoregional Assessments (REAs) to obtain wind and water erosion potential. U.S. Fish and Wildlife Service wetlands and critical habitat for threatened and endangered species were used to identify habitats of concern. We evaluated habitat quality and landscape connectivity through data from two research-based Naturalness and Landscape Permeability data sets. The Protected Areas Database of the United States facilitated our understanding of landownership of various protected areas. Finally, we performed a GIS analysis of potential visual resource impairments that included ambient light pollution measurements from a nighttime lights data set.