USDA Forest Service
U.S. DEPARTMENT OF AGRICULTURE

Southwestern Region | Technical Publication TP-R3-16-38 | September 2021

Socioeconomic Vulnerability to Ecological Changes in the Southwest

An All Lands Assessment

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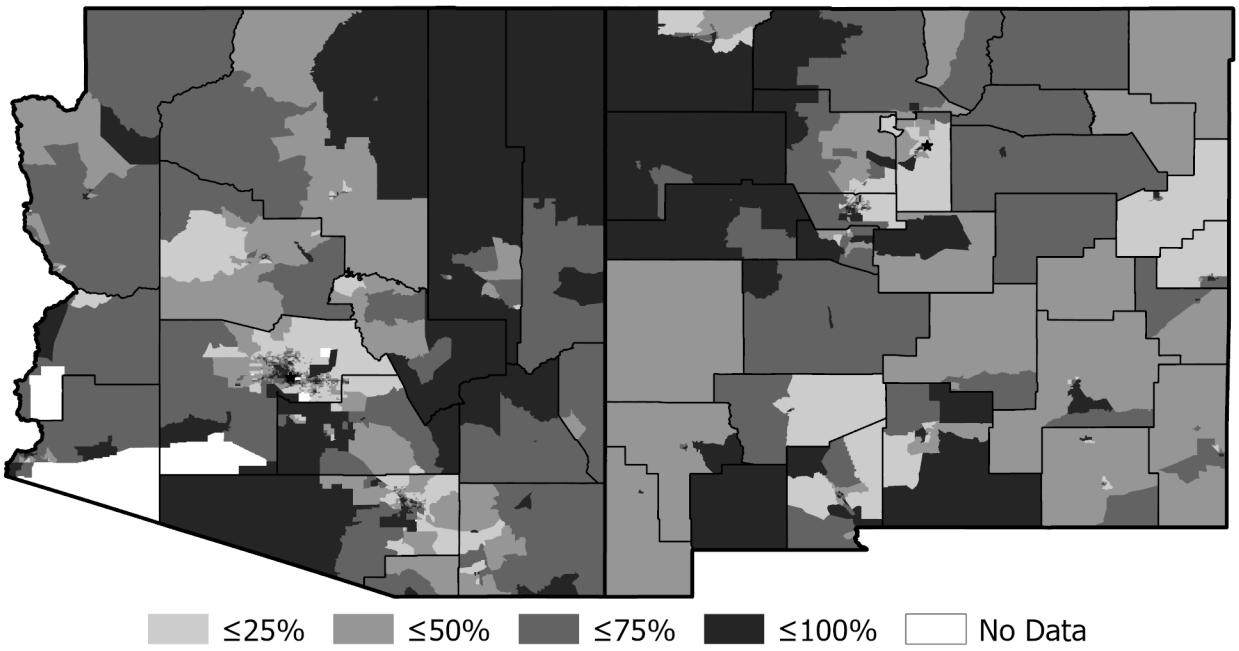

Borchers, Allison; Born, Ken; Triepke, F. Jack; Cobb, Jack; Rose, Anita. 2021. **Socioeconomic Vulnerability to Ecological Changes in the Southwest: An All Lands Assessment.** Tech. Pub. Southwestern Region TP-R3-16-38. Albuquerque, NM: U.S. Department of Agriculture, Forest Service, Southwestern Region. 112 p.

Abstract

A changing climate and its effects on ecosystem services will have broad impacts, however, not all people and communities will be equally affected. This assessment of vulnerability is concerned with identifying communities and geographic areas where climate-change-driven ecological changes have the potential to adversely affect human well-being due to changes in the provision of ecosystem services. Communities that are at greater risk of ecological changes and that lack adaptive capacity are considered more vulnerable. We analyzed vulnerability components of exposure, sensitivity, and adaptive capacity based on available socioeconomic and ecological data. Reporting here includes quantitative and spatially based summaries on community risk, resource sector dependence, and capacity to adapt, as well as an integration of the three vulnerability components. This report extends existing vulnerability reporting focused on national forests by assessing all lands, regardless of ownership, in Arizona and New Mexico.

Keywords: ecosystem services, socioeconomic vulnerability, economic dependance, vegetation change

Cover image: CDC's social vulnerability index, percentile ranking by census tract (CDC 2018). Darker areas indicate lower adaptive capacity and greater vulnerability.

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Acknowledgements

The authors gratefully acknowledge Michael Hand, Delilah Jaworski, and Henry Eichman who generously offered their time and expertise to discuss early direction in the planning and development of this report. We thank Catherine Doyle-Capitman for reviewing a draft of this report and providing thoughtful edits and suggestions. We thank Fay Dearing for help with geospatial analysis, Josh Meeks for research support, and Patricia Goude for careful editing and formatting of this manuscript.

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Chapter 1 – Introduction

Healthy, well-functioning ecosystems produce a variety of life-fulfilling goods and services, known collectively as "ecosystem services." Ecosystem services are defined as the components of nature directly enjoyed, consumed, or used to yield human well-being (Boyd and Banzhaf 2007; Daily 1997). Fundamentally, these services include not only those aspects of nature subject to direct human consumption (such as food, water, wood products, etc.), but also those functions that serve an indirect role in human well-being (such as the purification of water and air, the regulation of pests, disease, and wildlife, the provision of recreational opportunities, and cultural reverence). Personal well-being derived from these services includes safety, the basic materials for a viable livelihood, health, social and cultural relations, and freedom and choice (McMichael et al. 2005: 45). The flow of ecosystem services facilitates social and economic vitality and contributes to the general well-being of people and households.

Communities across the Southwest rely on ecosystem services to support the social and economic livelihoods of their people. However, forest and grassland ecosystems are likely to be altered due to a changing climate (IPCC 2007: 14). As climate change alters ecosystem functions, the type and amount of ecosystem services provided by forests and grasslands will also change (Alig et al. 2011).

Research in the Southwest suggests that the climate in the region will continue to grow more variable (Gutzler 2013; Overpeck et al. 2013). Increased climate variability is anticipated to cause an increase in the occurrence and intensity of weather-related hazards (e.g., floods, droughts, heat waves, intense storms) and environmental disturbances (e.g., wildfires, pest infestations, invasive species). Changing hazard patterns and disturbance regimes will alter the natural landscape in the Southwest and change the quality and quantity of ecosystem services. The magnitude and types of changes to the provision of ecosystem services depend on the sensitivity of various ecological, social, and economic systems (Gallopin 2006; Luers 2005).

Managers of forests and grasslands face a daunting task in developing land management plans under a changing climate and changing socioeconomic conditions. Although a changing climate and its effects on ecosystem services will have broad impacts, not all people and communities will be equally affected (IPCC 2007: 12). A number of factors may determine the extent to which people are vulnerable to changes in ecosystem service provision, including proximity to the forest or grassland, reliance on ecosystem services, level of use of outdoor recreation opportunities, and exposure to natural hazards that are related to the ecosystem. Further, people and communities have different capacities to adapt to changes in supply of ecosystem services, mitigate potential negative effects, and take advantage of potential opportunities related to climate change.

This report closely follows that published by Hand et al. (2018), Climate Change Vulnerability Assessment, also known as General Technical Report RMRS-GTR-383. Hand et al. (2018) focused on the ecosystem services delivered by National Forest System lands. We designed the analysis presented in this report to directly extend the assessment and methodology developed by Hand et al. (2018) to include all lands in Arizona and New Mexico. Adjustments, alternative data sources and, in some cases, different methods, are used, as appropriate, to address this larger scale. In general, however, this report seeks to directly replicate the approach in Hand et al. (2018) whenever reasonable as the most efficient means to address ecosystem service and socioeconomic vulnerability in this region. For this reason, this report should be considered a companion report to the Hand et al. (2018) report.

Study Scope and Outline

This assessment of vulnerability is concerned with identifying communities and geographic areas where climate-change-driven ecological changes have the potential to adversely affect human well-being due to

changes in the provision of ecosystem services. People who are at greater risk of changes in well-being are considered more vulnerable to ecological change.

Ecological change will impact people in many ways. The scope of this report focuses on how people will experience climate-induced ecological changes through ecosystem services. The intent is to provide those interested in the management of natural resources (including states and their partners) relevant information at a regional level.

Unlike Hand et al. (2018), where the focus was on provision by national forests and grasslands, the geographic scope of this report encompasses all lands in Arizona and New Mexico, and impacts are limited to the well-being of communities found in these two states (figure 1).

The analysis presented in this report is done at the county level. Reliable demographic and economic data are available at the county level. Sub-county (e.g., towns and cities) data are limited and have large margins of error, particularly in rural areas. The economic modeling software, IMPLAN, uses county-level datasets. Functional economic areas (typically a group of counties) are the primary scale for the social and economic analysis. While the two states have roughly the same land area, the size of their counties is quite different. Arizona is made up of 15 counties, while New Mexico contains 33 counties. When possible, analysis is also replicated at the census tract level to offer a finer spatial representation. Census tracts are smaller subdivisions of counties used by the U.S. Census Bureau. However, because they are created based on population, census tracts and counties may be equivalent in size in some of the more sparsely populated counties found in the Southwest.

Ecosystem services considered in this report are those affected by climate, including timber, forage, recreation, and water. Hand et al. (2018) outline the pathways in which climate change may affect the provision of ecosystem goods and services (see Hand et al. 2018, p. 4). While provision of minerals is an ecosystem good supplied by lands in the Southwest, the provision is not expected to be affected by climate change. A summary of the relevant ecosystem services and the ways provision may be affected by changes in climate is reproduced in table 1.

Hand et al. (2018) provide a detailed background into the conceptual model for assessing socioeconomic vulnerability, but those details will not be covered in this report. This report instead applies a portion of the model outlined there by analyzing the three components of vulnerability—exposure, sensitivity, and adaptive capacity. These three components are then combined to identify areas that exhibit high, moderate, and low socioeconomic vulnerability to ecological change. Alternative combinations could be explored depending on the management goals and constraints.

Chapter 2 addresses exposure by reviewing the assessment of Triepke et al. (2019) of climate-related ecological changes. Their analysis of the likelihood of climate-related vegetative change within the region is used to identify areas where climate change is likely to alter the composition of natural landscapes (Triepke et al. 2019). Adding geospatial data describing disturbances (such as fire and tree insect infestations) and uses of ecosystem services (such as municipal watersheds and livestock farming) identifies areas that may be exposed to climate-sensitive ecological stressors and that are critical for providing benefits from ecosystem services.

Chapter 3 addresses sensitivity by providing an analysis of regional economic dependence on ecosystem services. This approach differs from that in Hand et al. (2018). Hand et al. (2018) developed models to show the economic contribution of ecosystem services stemming from National Forest System lands. Instead, we used county-level data to understand the relative importance of economic sectors dependent on ecosystem services. Employment data are used to calculate a location quotient—a specific type of index—to show the relative concentration of economic activity in these sectors.

Chapter 4 addresses adaptive capacity by reporting county-level indexes developed by Hand et al. (2018) using socioeconomic data to assess which areas in the region may have a greater or lesser density of households that can adapt to changes in the provision of ecosystem services. A similar index the Centers for Disease Control and Prevention (CDC) developed is also presented. The county-level index is presented in this report, but unlike Hand et al.'s analysis, the CDC's index is also available at the census tract-level (a finer geographic scale in many places) to assess adaptive capacity at a smaller community level.

The final chapter of the report presents the county-level summaries of adaptive capacity compared with the economic dependence and ecosystem services assessments developed in previous chapters.

Appendix A provides additional details on the sources and methods used to develop each of the indicators presented. Appendix B is a summary dataset with county and census tract-level (when available) indicators. This includes a geographic id for mapping.

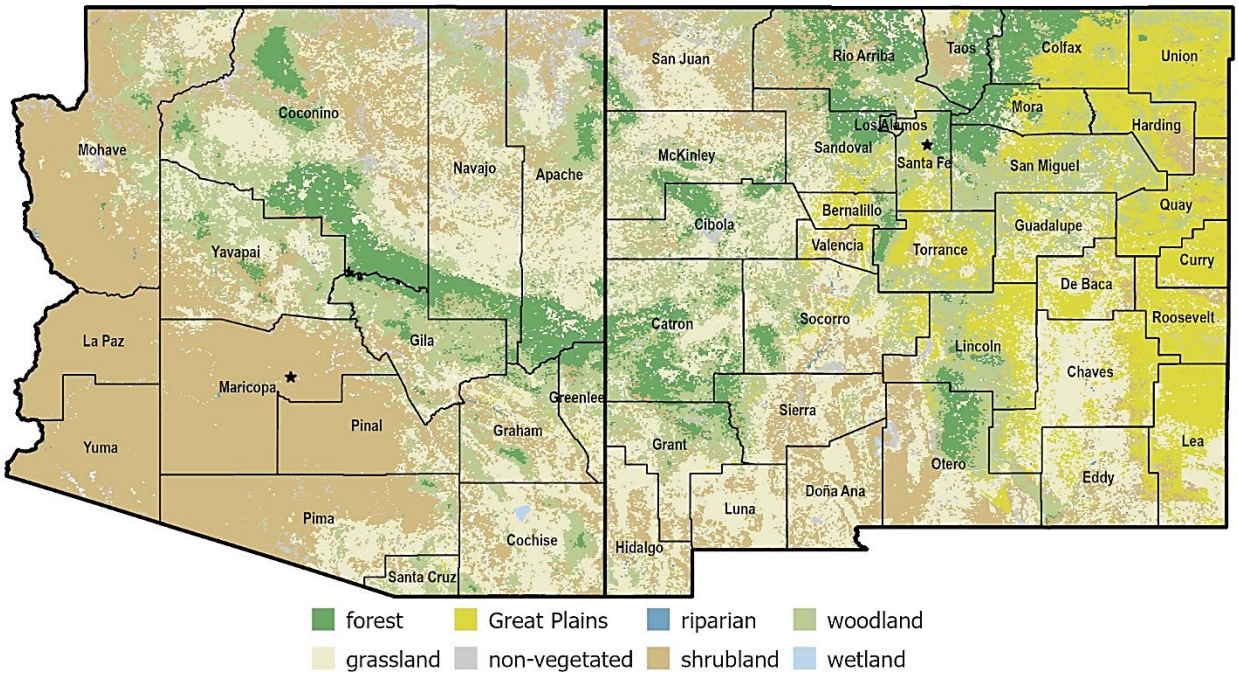


Figure 1. Region overview showing counties and ecological types (summary of ecological response units (ERUs) used in Triepke et al. 2019)

Table 1. Relevant ecosystem goods and services

Ecosystem good or service	Description	Pathways that may affect provision	Scope of beneficiaries
Water supply	Municipal, agricultural, commercial, and in-stream uses	**Direct** – Reduced precipitation and increased temperatures; **Disturbance regimes** – Increased incidence and severity of wildfires and erosion events	Within region; onsite; downstream users (e.g., Texas and Mexico)
Recreation opportunities	Site access and availability for onsite recreation opportunities	**Direct** – Reduced snowpack for skiing; **Vegetation vulnerability** – Suitable habitat for game mammals, fish; **Disturbance regimes** – Degradation or enhancement of sites due to wildfire	Benefits derived onsite, but could accrue to local and non-local beneficiaries
Forage for livestock	Forage availability and appropriate for grazing	**Vegetation vulnerability** – Changes in range or extent of suitable forage; **Disturbance regimes** – Incidence and severity of invasive plants	Onsite use by within-region livestock operations
Forest products – commercial use	Commercial timber and biomass	**Vegetation vulnerability** – Changes in range and extent of certain plant species; **Disturbance regimes** – Increased bark beetle mortality; increased incidence and severity of wildfire	Wood product market participants, ranging from local to global
Forest products – personal use	Fuelwood, food, and forage	**Vegetation vulnerability** – Changes in range and extent of certain plant species; **Disturbance regimes** – Increased bark beetle mortality; increased incidence and severity of wildfire	Mostly residents within the region, particularly those close to forests
Air quality	Forests as a source (dust, smoke) and a sink for emissions	**Disturbance regimes** – Increased smoke from wildfires	Local and regional residents within regional airshed
Climate regulation	Forests as a carbon sink and carbon sequestration option	**Vegetation vulnerability** – Reduced biomass/carbon sequestration; **Disturbance regimes** – Increased emissions from wildfire; loss of biomass due to bark beetle mortality	Global
Biodiversity and non-use species	Plant and animal genetic resources; non-use values for plant and animal species (e.g., cultural, spiritual, and existence values); biomass input for forest products and recreation opportunities	**Direct** – Loss of aquatic habitat due to reduced surface water flows; change in climate conditions for certain species; **Vegetation vulnerability** – Change in range or extent of habitat; **Disturbance regimes** – Wildfire; invasive plants; bark beetle mortality	Values accrue to residents within and outside the region
Spiritual, cultural, and historic significance	Sites, species, and landscape characteristics that hold spiritual, cultural, or historic value	**Vegetation vulnerability** – Change in range or extent of plants or habitat for animals for cultural and spiritual uses; **Disturbance regimes** – Damage to cultural sites from wildfire	Spiritual site users (within region); residents within and outside the region with cultural and historic ties to forests in the region
Offsite amenities	Viewsheds and landscape characteristics that hold aesthetic value that can be enjoyed offsite	**Vegetation vulnerability** – Change in vegetation composition of land adjacent to private properties; **Disturbance regimes** – Effects of wildfire on desirable viewsheds	Residents adjacent or close to forests

Source: Reproduced from Hand et al. 2018, table 1 pg. 6

Chapter 2 – Exposure: Climate-Related Changes to Ecosystem Services in the Southwest

People and communities in the Southwest depend on natural resources for the provision of a variety of ecosystem services. Since these ecosystem services depend on the supporting climate and landscape conditions, climate change may alter their provision, as these conditions change.

This section assesses the risk to the provision of selected ecosystem services due to projected climate change. First, we review an assessment of the likelihood of vegetation change based on climate projections. Second, we present the use or provision of ecosystem services. Finally, we evaluate ecosystem service provision against the likelihood of vegetation change or disturbance regimes to understand the exposure of ecosystem services to climate-related changes.

General relationships between climatic changes, ecosystems, and ecosystem services are understood. For example, decreases in snowpack are likely to have negative impacts on ecosystem services that directly rely on snow (for example, winter recreation) and stream flows (for example, surface water for irrigation). This analysis presents a spatial intersection of both the use and provision of ecosystem services and those areas vulnerable to projected climatic changes. Hand et al. (2018) present a more detailed overview of the relationships to climate and ecosystem services.

Vegetation Change due to Future Climate Projections

A study by Triepke et al. (2019) assessed the vulnerability of upland ecosystems in Arizona and New Mexico to the potential of climate-related changes based on climatological projections. By segmenting land areas into individual plant communities (referred to as ecological response units (ERUs)) and assessing the climatic conditions that support each community, downscaled climate projections (level of departures from pre-1990 climate) were used to predict vegetation change at a fine spatial resolution.

Triepke et al. (2019) assessed likelihood of vegetation change at a very fine spatial scale. These are summarized at scales appropriate to intersect with available ecosystem services and ultimately socioeconomic data—census tracts and counties—and provide the foundation on which exposure to climate-related changes are based in this report.

Table 2 provides a summarization of this likelihood for climate-related vegetation change by county based on percent area. Figure 2 illustrates the summary at the census tract. That is, the likelihood of vegetation change depicts the relative potential—as four classes of low, moderate, high, very high—how likely predominant vegetation is to change under future climate. Generally, the southern extent of the region is more vulnerable to vegetation change due to climate change (see table 2 and figure 2), but variability is found throughout the region. Over 70 percent of the region was at high or very high likelihood of change. These vulnerability findings varied with ecosystem type and location. For example, given that alpine in this region is found at its southernmost extent in the United States, this ecosystem type is found to be inherently vulnerable to climate change. Middle-elevation montane forests generally exhibit lower vulnerability than the higher-elevation systems. A majority of grassland types in the low-lying valleys and plains are high or very highly vulnerable. Overall, north-central New Mexico has concentrated areas of lower vulnerability while extents to the south and westward generally increase in vulnerability to vegetation change.

Summarizing the likelihood of vegetation change by county can show land managers where climate change impacts may be encountered. Later in this report, we assess the probability of these projected vegetation changes alongside the probability of other expected disturbances, dependence on ecosystem services, and adaptive capacity to better understand the most vulnerable ecosystems and communities.

Table 2. Percentage of county with high or very high likelihood of vegetation change*

County	Percentage of area	County	Percentage of area
Arizona		**New Mexico**	
Apache County	65%	Bernalillo County	84%
Cochise County	90%	Catron County	28%
Coconino County	74%	Chaves County	92%
Gila County	36%	Cibola County	56%
Graham County	66%	Colfax County	8%
Greenlee County	48%	Curry County	98%
La Paz County	97%	De Baca County	99%
Maricopa County	88%	Dona Ana County	98%
Mohave County	67%	Eddy County	97%
Navajo County	80%	Grant County	52%
Pima County	89%	Guadalupe County	92%
Pinal County	76%	Harding County	64%
Santa Cruz County	92%	Hidalgo County	90%
Yavapai County	32%	Lea County	94%
Yuma County	100%	Lincoln County	80%
		Los Alamos County	55%
		Luna County	99%
		McKinley County	57%
		Mora County	14%
		Otero County	85%
		Quay County	95%
		Rio Arriba County	23%
		Roosevelt County	90%
		Sandoval County	62%
		San Juan County	78%
		San Miguel County	56%
		Santa Fe County	37%
		Sierra County	74%
		Socorro County	69%
		Taos County	12%
		Torrance County	54%
		Union County	43%
		Valencia County	94%

Source: Summary based on Triepke et al. 2019

* Calculated as the area of the county where the ecological response unit polygons vegetation change rating is assessed with high or very high likelihood of vegetation change and low or moderate uncertainty. High and very high likelihood of change are areas where projected future climatic conditions are likely to fall outside of the range of conditions that support current vegetation types.

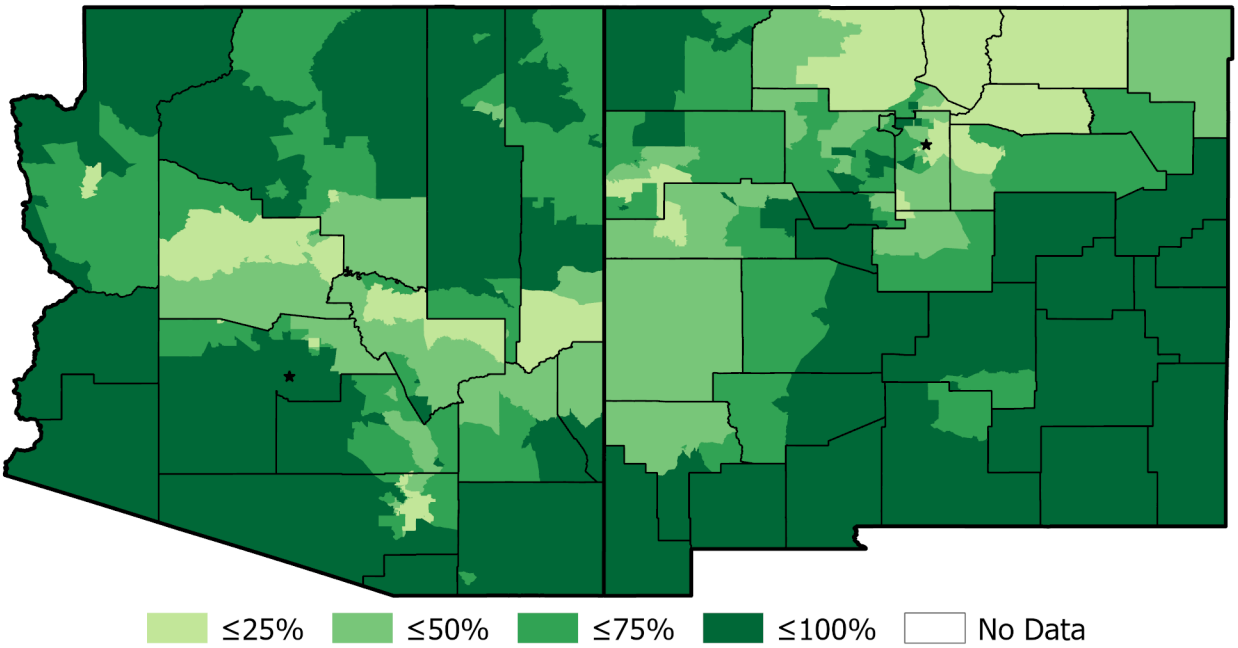


Figure 2. Proportion of census tract with high or very high likelihood of vegetation change (summary based on Triepke et al. 2019)

Disturbance Regimes

Wildfire

Wildfire plays an important role in shaping ecosystem functions and resulting ecosystem services. For example, wildfire directly impacts provision of timber and forage and the desirability of recreation opportunities. Fire also directly and indirectly affects a wide range of resources people value such as air quality, municipal watersheds, and wildlife habitat.

A wildfire hazard potential (WHP) geospatial product was developed by the Forest Service's Rocky Mountain Research Station, Fire Modeling Institute to help inform evaluations of wildfire risk or prioritization of fuels management across large spatial scales (Dillon 2018). Table 3 provides a summarization of this potential by county. That is, the WHP depicts the relative potential—as five classes of very low, low, moderate, high, very high—for wildfire that would be difficult for suppression resources to contain. The WHP is created by assessing large and small wildfire potential weighted by the difficulty they pose to suppression efforts and resistance to control based on fire line construction rates. Table 3 shows the percentage of each county with a high or very high wildfire hazard potential classification. High-hazard areas identified by WHP are characterized by relatively high likelihood of wildfire occurring and burning at high intensities that tend to be damaging for ecosystem services and functions (Fire Modeling Institute 2014). Arizona and New Mexico rank sixth and tenth, respectively, in terms of land area in the high and very high WHP class.

Table 3. Percentage of area, by state and county, with high or very high wildfire hazard potential

County	Percentage of area	County	Percentage of area
Arizona	**19%**	**New Mexico**	**18%**
Apache County	11%	Bernalillo County	5%
Cochise County	9%	Catron County	59%
Coconino County	27%	Chaves County	29%
Gila County	77%	Cibola County	3%
Graham County	36%	Colfax County	34%
Greenlee County	43%	Curry County	4%
La Paz County	1%	De Baca County	28%
Maricopa County	5%	Dona Ana County	0%
Mohave County	20%	Eddy County	2%
Navajo County	15%	Grant County	46%
Pima County	8%	Guadalupe County	2%
Pinal County	13%	Harding County	3%
Santa Cruz County	22%	Hidalgo County	2%
Yavapai County	30%	Lea County	24%
Yuma County	<1%	Lincoln County	14%
		Los Alamos County	43%
		Luna County	1%
		McKinley County	2%
		Mora County	30%
		Otero County	21%
		Quay County	6%
		Rio Arriba County	30%
		Roosevelt County	28%
		Sandoval County	4%
		San Juan County	14%
		San Miguel County	17%
		Santa Fe County	24%
		Sierra County	22%
		Socorro County	17%
		Taos County	37%
		Torrance County	4%
		Union County	2%
		Valencia County	<1%

Source: Dillon 2018

Climate change is likely to alter wildfire regimes in the Southwest due to higher temperatures, changes in fuels accumulations, and earlier spring snowmelt and runoff (Dale et al. 2001; Westerling et al. 2006; Rocca et al. 2014), resulting in greater wildfire activity (Flannigan et al. 2000; Littell et al. 2009). Climate effects on vegetation may exacerbate wildfire risk through increased tree mortality due to warming and extreme fire behavior, water deficits, and drought stress (van Mantgem et al. 2009; Williams et al. 2010), although long-term effects may vary with changes in vegetation and fuel availability in the future.

Insects and Disease

Insects and diseases are natural occurrences, but tree mortality can occur, and severe outbreaks can damage forest ecosystems (Moser et al. 2009; Tkacz et al. 2008) and impact the ecosystem services provided.

Tree mortality risk due to insect and disease in the Southwest is summarized using National Insect and Disease Risk Map (NIDRM) (Krist et al. 2014; Forest Health Project 2019b). The primary purpose for NIDRM is as a strategic, broad-scale planning tool that can be used for administrative activities and work planning. This dataset presents 'at risk' as the expectation that 25 percent or more of the live standing trees greater than 1 inch in diameter will be lost over a 15-year time frame due to mortality from insects and disease. Table 4 presents the 2018 update to the 2012 NIDRM, which adjusts for areas no longer at risk for significant damage due to areas that have experienced disturbances. The 2018 update shows a reduction in areas at risk, due to disturbances that have occurred, but does not account for increases in hazards due to tree growth or new pests.

In Arizona, Coconino and Apache Counties have the largest treed areas and also the largest percentage of that treed area at risk for insect and disease mortality (table 4). Both counties are found on the northern border of the state. Seven New Mexico counties have greater than 10 percent of their treed areas at risk. Six of these counties are clustered in the northern part of the state—Taos, Santa Fe, Sandoval, Rio Arriba, Mora, and Colfax. Otero County, with 20 percent of the treed area at risk, is the exception found in the southern part of the state.

The NIDRM estimates presented above do not include hazards related to a changing climate. However, the expectation is that climate change will significantly increase the number of acres at risk, as well as increase risk from the most destructive pests and diseases (Krist et al. 2014). The annual Forest Insect and Disease Conditions report finds the regionwide bark beetle tree mortality at over 394,500 acres in 2018. This is over three times the mortality in 2017, and is attributed to lack of winter precipitation and warm spring temperatures (Forest Health Project 2019a).

Intersecting Risk of Climate Change Effects and Disturbances

The above sections illustrated a single disturbance regime and the overlap with climate-induced vegetative changes. Following the method introduced in Hand et al. (2018), the likelihood of vegetation changes are combined with the data on disturbance risk (fire, insect, and disease mortality) to provide insight into areas where multiple stressors overlap and may further threaten the provision of ecosystem services.

The risk of multiple stressors is calculated as an expected probability and not a spatial mapping exercise. That is, the area share (county or census tract) is interpreted as a probability that a given acre is in the high or very high category for a given stressor (Hand et al. 2018). The probability of an acre being in the high or very high category for two of the three stressors is the pairwise product of the three area shares:

> Probability (any 2 stressors) = (vegetation change risk * Insect and Disease) + (vegetation change risk * Wildfire Hazard Potential) + (Insect and Disease * Wildfire Hazard Potential).

Most counties have relatively low amount of area at high or very high risk of two stressors; the highest value is about 39 percent for Otero County, New Mexico. Four Arizona counties and eight New Mexico counties have at least 20 percent of their area in the high or very high risk category for at least two stressors. About 40 percent of counties in each state are expected to have less than 10 percent of area in the high or very high risk category for at least two stressors.

Table 4. Percentage of area (by state and county) that is treed and 'at risk' *

County	Percent treed	Percentage treed at risk	County	Percent treed	Percentage treed at risk
Arizona			**New Mexico**		
Apache County	52%	12%	Bernalillo County	36%	9%
Cochise County	29%	1%	Catron County	68%	2%
Coconino County	46%	7%	Chaves County	4%	0%
Gila County	71%	0%	Cibola County	60%	2%
Graham County	40%	1%	Colfax County	51%	14%
Greenlee County	66%	3%	Curry County	0%	0%
La Paz County	1%	0%	De Baca County	0%	0%
Maricopa County	9%	0%	Dona Ana County	2%	0%
Mohave County	25%	0%	Eddy County	6%	0%
Navajo County	46%	1%	Grant County	51%	0%
Pima County	21%	0%	Guadalupe County	8%	0%
Pinal County	10%	0%	Harding County	10%	2%
Santa Cruz County	78%	0%	Hidalgo County	5%	0%
Yavapai County	51%	0%	Lea County	0%	0%
Yuma County	0%	0%	Lincoln County	29%	3%
			Los Alamos County	99%	8%
			Luna County	0%	0%
			McKinley County	43%	4%
			Mora County	47%	14%
			Otero County	26%	20%
			Quay County	3%	0%
			Rio Arriba County	82%	17%
			Roosevelt County	0%	0%
			Sandoval County	43%	14%
			San Juan County	23%	4%
			San Miguel County	48%	9%
			Santa Fe County	54%	14%
			Sierra County	22%	1%
			Socorro County	25%	4%
			Taos County	65%	34%
			Torrance County	29%	3%
			Union County	14%	5%
			Valencia County	8%	0%

Source: Forest Health Project 2019a.

* 'At risk' represents the expectation that, without remediation, 25 percent or more of the standing live basal area of trees greater than 1 inch in diameter will die over the 15-year (2013 to 2027) time frame due to insects and diseases. This 2018 updated value is a reduction from the 2012 report to account for disturbance events that occurred.

The intersection of all three stressors is not reported because the very low or zero risk of insect and disease at the county level pushes the probability of all three stressors close to zero for most counties. Hand et al. (2018) report this intersection for National Forest System lands where, given the higher proportion of treed area, the risk for these types of disturbances is higher.

Table 5. Expected area with high or very high ranking of two out of three hazard variables

County	Expected area	County	Expected area
Arizona		**New Mexico**	
Apache County	16%	Bernalillo County	12%
Cochise County	9%	Catron County	18%
Coconino County	27%	Chaves County	27%
Gila County	28%	Cibola County	3%
Graham County	25%	Colfax County	9%
Greenlee County	23%	Curry County	4%
La Paz County	1%	De Baca County	28%
Maricopa County	4%	Dona Ana County	0%
Mohave County	14%	Eddy County	2%
Navajo County	13%	Grant County	24%
Pima County	8%	Guadalupe County	2%
Pinal County	10%	Harding County	3%
Santa Cruz County	20%	Hidalgo County	2%
Yavapai County	10%	Lea County	23%
Yuma County	1%	Lincoln County	14%
		Los Alamos County	31%
		Luna County	1%
		McKinley County	4%
		Mora County	10%
		Otero County	39%
		Quay County	6%
		Rio Arriba County	16%
		Roosevelt County	25%
		Sandoval County	12%
		San Juan County	14%
		San Miguel County	16%
		Santa Fe County	17%
		Sierra County	17%
		Socorro County	15%
		Taos County	21%
		Torrance County	4%
		Union County	3%
		Valencia County	1%

Source: Calculation based on Triepke et al. 2019, Dillon 2018, Forest Health Project 2019a.

Uses and Roles of Ecosystems in the Southwest

Assessing the likelihood of vegetation change and disturbances is useful for evaluating the exposure of southwestern lands to climate-related changes in the provision of ecosystem services. Vegetation change and changing disturbance regimes may alter the provision of water, recreation opportunities, grazing, and commercial and noncommercial forest products. In turn land-regulating services (e.g., long-term storage of carbon, climate regulation, water filtration, soil stabilization) and land-supporting services (e.g., pollination, seed dispersal, nutrient cycling) can change. Land-supported cultural services (e.g., education, aesthetics, spiritual connection, recreation experiences, tourism opportunities) may also be affected. These relationships are broadly recognized, but spatial data (where available) can provide more detailed information on the extent of threat to many of these uses and the spatial distribution of areas that are relatively more or less exposed to climate-related changes.

Forage for Livestock

Grazing of livestock plays an important economic and social role for communities in the Southwest, and area residents identify with the tradition, land use, and history of this activity. Rangelands also provide a variety of nongrazing ecosystem services, such as cultural heritage services, biodiversity, wildlife habitat, and offsite scenic and lifestyle amenities enjoyed by nearby residents and communities (Brown and MacLeod 2011, Havstad et al. 2007, Torell et al. 2005).

Areas available for livestock grazing cover more than 15 million acres of national forests and grasslands in the Southwest (calculated by summing the total area in range management units where livestock operators may have permits to graze livestock) (Hand et al. 2018). A study using data from the U.S. Department of Agriculture (USDA), the U.S. Census Bureau, public land management and conservation agencies, and other sources to estimate the use of several broad classes and subclasses of all land in the United States finds that 122.8 million acres across the two states are pasture and range, including forested lands that are grazed (Bigelow and Borchers 2017). This is 86 and 78 percent of the total land area of New Mexico and Arizona, respectively. Livestock is grazed on most land types in the Southwest (USDA Forest Service 2019). To assess the importance of livestock grazing across the Southwestern Region, the USDA's National Agriculture Statistic Service's estimates of livestock farms and inventory of cattle are reported below. A discussion of the economic dependence (using sector employment as the indicator) of grazing is presented in a later section (see Rangeland grazing).

Beef cattle ranching and farming (North American Industry Classification System (NAICS) classification 112111) is a significant percentage of all farm types in both states (table 6, table 7). In 2017, just over one-third of all farms in the two states were classified as primarily beef cattle ranching and farming (table 6). Arizona has significant concentration of beef cattle ranching and farming—Apache and Navajo Counties combined have 47 percent of all beef and cattle specialization farms in Arizona. The same two counties have 79 percent of all sheep and goat farms in Arizona. This likely is capturing an abundance of small farms. About two-thirds of both Apache and Navajo Counties form all or part of the Hopi Indian Reservation, Navajo Nation, and the Fort Apache Indian Reservation, respectively. (USGS 2012). In some areas, small-scale noncommercial family herds for local use have been a tradition for centuries (Atencio 2004).

Table 6. Beef cattle, sheep and goat ranches and farms, Arizona

	Beef cattle ranches and farms	As a percentage of all farm types	Sheep and goat farms	As a percentage of all farm types
Arizona	**5,572**	**29%**	**5,139**	**27%**
Apache County	1,494	27%	2,467	44%
Cochise County	373	34%	53	5%
Coconino County	873	41%	731	34%
Gila County	181	61%	7	2%
Graham County	221	49%	11	2%
Greenlee County	68	55%	12	10%
La Paz County	13	13%	0	0%
Maricopa County	267	14%	129	7%
Mohave County	141	44%	16	5%
Navajo County	1,144	27%	1,596	38%
Pima County	217	33%	32	5%
Pinal County	180	24%	23	3%
Santa Cruz County	111	51%	6	3%
Yavapai County	266	31%	45	5%
Yuma County	23	5%	11	2%

Source: USDA NASS 2019

Beef cattle and sheep and goat farms are variably distributed across New Mexico counties (table 7). McKinley and Sandoval Counties have notably higher numbers of both beef cattle and sheep and goat farms compared to other New Mexico counties. Combined, these counties contain 60 percent of all sheep and goat farms, and 20 percent of beef cattle farms.

Ranching in the Southwestern Region includes both large and small operations. Looking at cattle inventory shows a different distribution than the data on number of farms (table 8). This is a result of large operations and feedlots skewing the concentration of the inventory of animals toward a few counties. Pinal County, in central Arizona, and Curry County, in northeastern New Mexico, were the region's first and second largest cattle producers, containing 33 and 19 percent of their respective state total cattle inventory (including feedlots) (USDA NASS 2019).

Table 7. Beef cattle, sheep and goat ranches and farms, New Mexico

	Beef cattle ranches and farms	As a percentage of all farm types	Sheep and goat farms	As a percentage of all farm types
New Mexico	**9,530**	**38%**	**2,785**	**11%**
Bernalillo County	287	23%	126	10%
Catron County	221	65%	18	5%
Chaves County	215	38%	33	6%
Cibola County	362	57%	92	14%
Colfax County	170	56%	15	5%
Curry County	196	31%	24	4%
De Baca County	118	52%	13	6%
Dona Ana County	96	5%	26	1%
Eddy County	199	39%	9	2%
Grant County	252	62%	13	3%
Guadalupe County	194	65%	10	3%
Harding County	142	77%	3	2%
Hidalgo County	88	58%	3	2%
Lea County	240	43%	42	8%
Lincoln County	277	61%	7	2%
Los Alamos County	0	0%	0	0%
Luna County	58	27%	10	5%
McKinley County	973	40%	961	39%
Mora County	337	48%	21	3%
Otero County	189	40%	23	5%
Quay County	304	50%	34	6%
Rio Arriba County	541	38%	52	4%
Roosevelt County	289	39%	29	4%
Sandoval County	968	33%	717	24%
San Juan County	569	49%	22	2%
San Miguel County	366	36%	86	9%
Santa Fe County	181	28%	47	7%
Sierra County	105	41%	18	7%
Socorro County	243	37%	83	13%
Taos County	206	25%	66	8%
Torrance County	420	59%	49	7%
Union County	268	73%	2	1%
Valencia County	456	34%	131	10%

Source: USDA NASS 2019

Table 8. Cattle, including calves, inventory

	Percentage of state total	Inventory		Percentage of state total	Inventory
Arizona		**891,436**	**New Mexico**		**1,498,731**
Apache County	4%	38,995	Bernalillo County	<1%	3,187
Cochise County	14%	129,042	Catron County	2%	23,241
Coconino County	5%	47,193	Chaves County	13%	193,315
Gila County	2%	15,114	Cibola County	1%	15,083
Graham County	2%	13,759	Colfax County	2%	28,472
Greenlee County	1%	9,495	Curry County	19%	278,763
La Paz County	(NA)	(D)	De Baca County	2%	37,350
Maricopa County	24%	210,980	Dona Ana County	4%	66,423
Mohave County	2%	21,650	Eddy County	3%	39,602
Navajo County	3%	29,746	Grant County	2%	27,059
Pima County	2%	16,745	Guadalupe County	2%	24,960
Pinal County	33%	294,237	Harding County	2%	22,658
Santa Cruz County	2%	16,475	Hidalgo County	2%	22,692
Yavapai County	5%	48,005	Lea County	6%	96,690
Yuma County	(NA)	(D)	Lincoln County	2%	31,767
			Los Alamos County	0%	0
			Luna County	2%	26,639
			McKinley County	1%	22,139
			Mora County	1%	18,264
			Otero County	1%	16,279
			Quay County	3%	40,579
			Rio Arriba County	1%	16,973
			Roosevelt County	10%	147,068
			Sandoval County	1%	16,523
			San Juan County	3%	46,194
			San Miguel County	<1%	12,159
			Santa Fe County	1%	14,965
			Sierra County	1%	20,267
			Socorro County	3%	42,521
			Taos County	<1%	5,121
			Torrance County	3%	38,770
			Union County	5%	78,954
			Valencia County	2%	24,054

Source: USDA NASS 2019

Note: (D) indicates data withheld by USDA NASS to avoid disclosing data for individual operations.

Increased CO_2 concentrations and changes in temperature and precipitation directly affect rangeland productivity. Increased CO_2 concentrations and longer growing seasons may increase productivity on rangelands (Baker et al. 1993), but higher temperatures and increased variability of precipitation, interactions with disturbances such as fire and invasive plants and hazards such as erosion and landslides, and increased human impacts may stress rangeland productivity in some areas (Chambers and Pellant 2008). Greater climate variability can also have an impact; for example, optimal livestock stocking rates may decline as precipitation becomes more variable (Ritten et al. 2010). In the Southwest, projections of the effects of climate change on forage quantity and cattle production indicate overall reductions in rangeland productivity and increased vulnerability of cattle production in the future (Reeves and Bagne 2016).

Rangeland Exposure

This assessment of the exposure of forage for livestock to climate-related forest and grassland changes relies on identifying areas that are important for livestock grazing and most at risk of vegetation change. To examine the exposure of grazing activities to climate-related change, vegetation risk summaries are paired with the number of livestock farms located within each county. Figure 3 illustrates the distribution of counties by the number of farms in the county and the likelihood of vegetation change. In Arizona, over 54 percent of all farms are in counties where the likelihood of vegetation change is over 70 percent. In New Mexico, 36 percent of all farms are in counties with a greater than 70 percent likelihood of vegetation change.

A grazing exposure index is calculated as the number of beef cattle, sheep or goat farms in a county multiplied by the share of area at high or very high risk of vegetation change. This index is included in the data appendix.

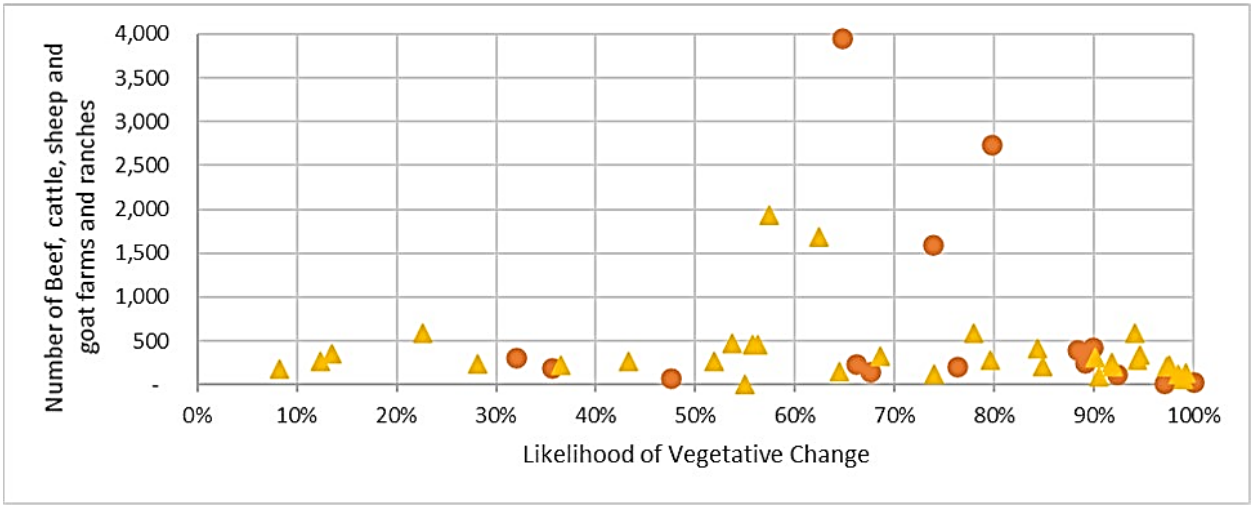


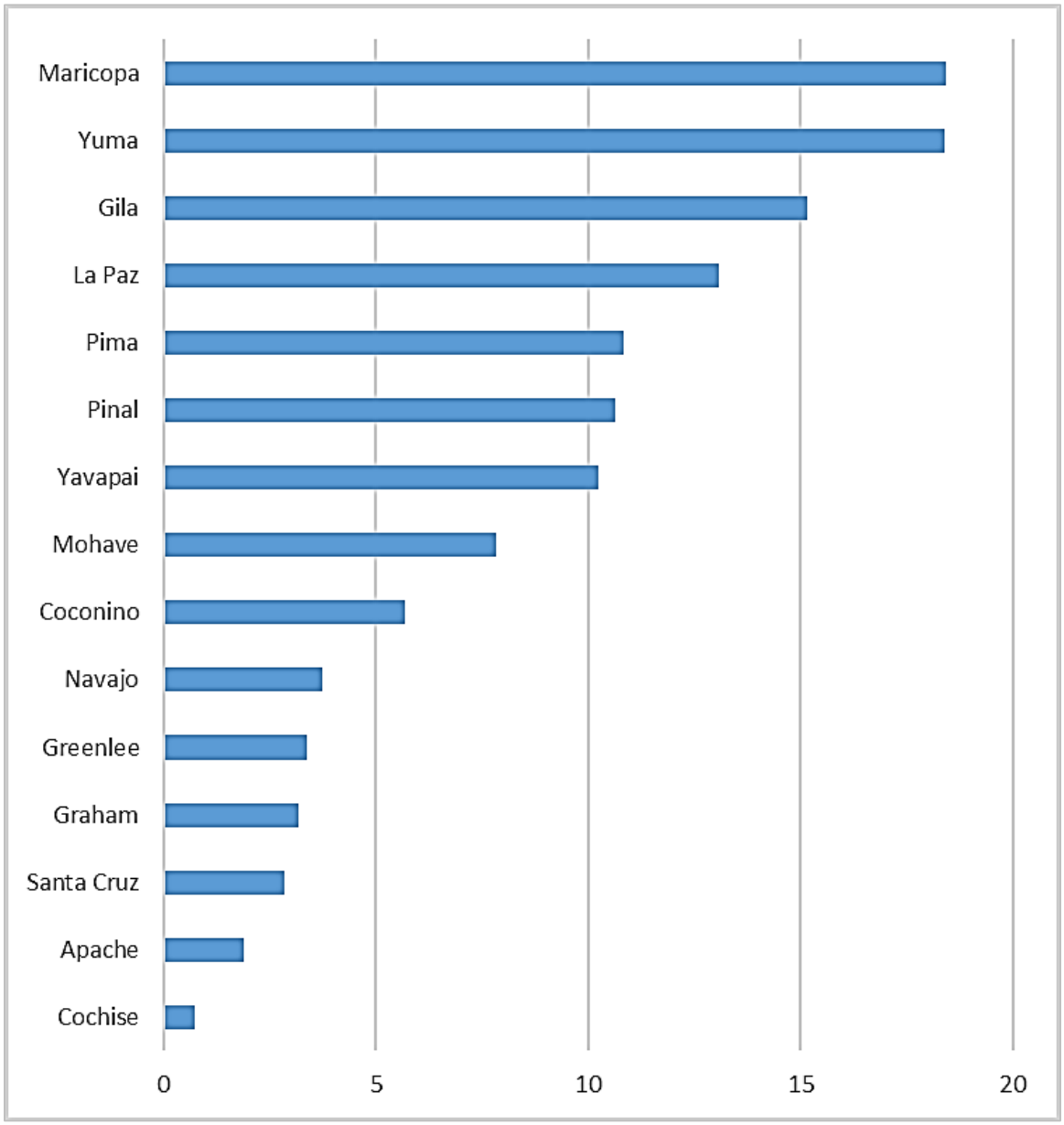
Figure 3. Exposure of farms to climate-induced vegetation change in the Southwestern Region. Triangles represent New Mexico counties; circles represent Arizona counties.

Surface Water Supply and Exposure

The importance of watersheds for municipal surface drinking water is summarized by using *From the Forest to the Faucet Drinking Water and Forests in the U.S.* data ("*Forests to Faucets*") from Weidner and Todd (2011). Importance of surface water sources for municipal drinking water is measured by using the 'IMP' index field in the *Forests to Faucets* data. The value of IMP for each 12-digit HUC is a standardized index value between 0 and 100 that summarizes relative mean annual water supply, the flow of water (e.g., from upstream to downstream watersheds), and water demand (i.e., of the municipality

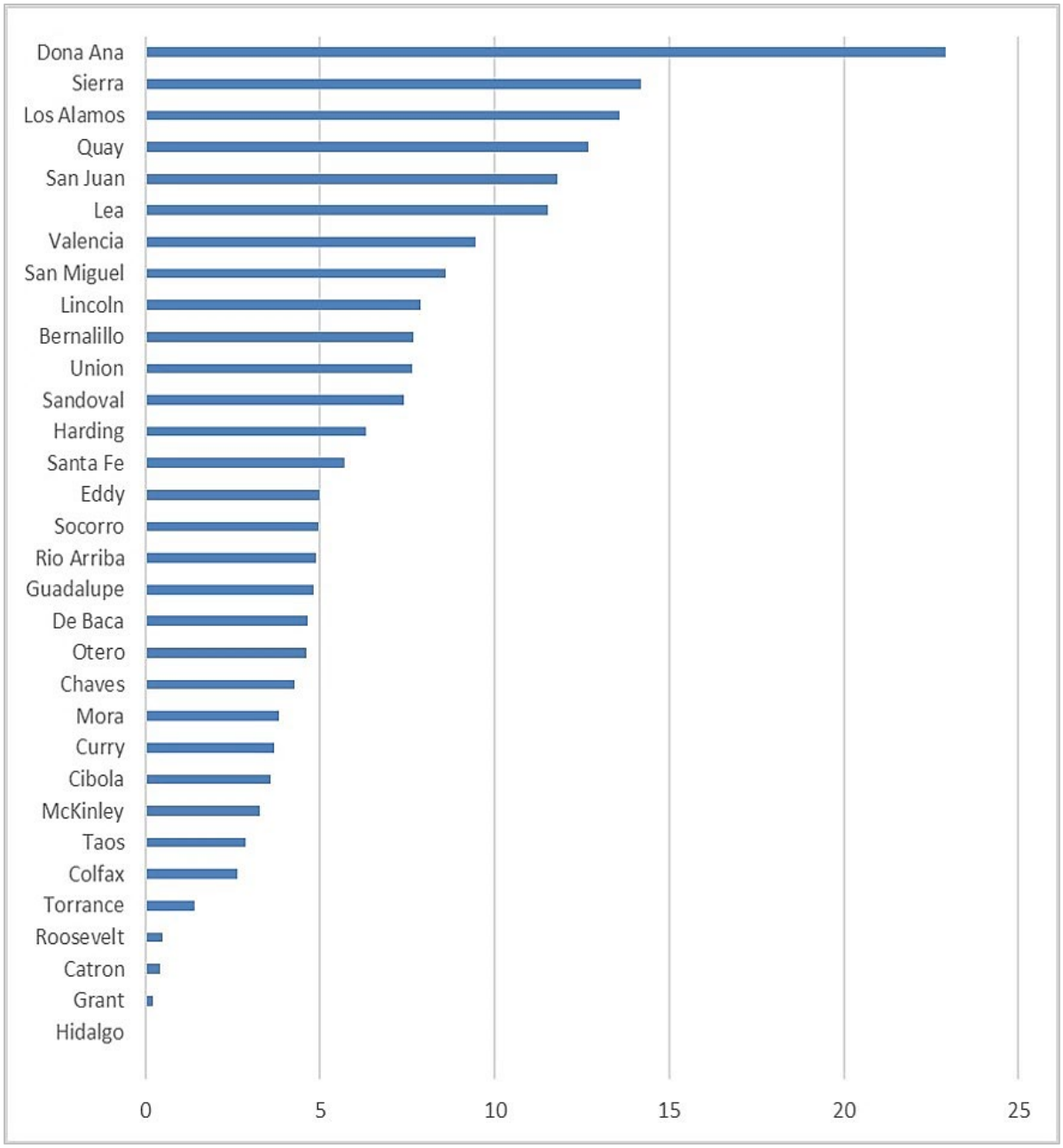
where water is eventually consumed). This index is presented in the following section Dependence on Resources not Measured in Market Transactions.

Identification of watershed exposure to climate-related changes is based on the intersection of the likelihood of vegetation change due to climate change and the importance of watersheds for surface water users. Likelihood of vegetation change is used as a proxy for climate impacts that may affect surface water supply. Greater likelihood of vegetation change is interpreted as an indicator of greater exposure to climate-related changes to surface water supply.



Note: Larger values represent greater exposure of important watersheds to the likelihood of climate change-induced vegetation change. County averages are acre-weighted averages of HUC-12-level water exposure for all watersheds within each county.

Figure 4. Watershed exposure to likelihood of vegetation change in Arizona (summary based on Weidner and Todd (2011) and Triepke et al. (2019))



Note: Larger values represent greater exposure of important watersheds to the likelihood of climate change-induced vegetation change. County averages are acre weighted averages of HUC-12-level water exposure for all watersheds within each county.

Figure 5. Watershed exposure to likelihood of vegetation change in New Mexico (summary based on Weidner and Todd (2011) and Triepke et al. (2019))

Higher exposure counties tend to be associated with surface water sources that supply urban areas and larger populations. Maricopa County, for example, contains the city of Phoenix and is the most populous county in Arizona. Phoenix 's water supply comes primarily from the Salt River Project that brings water by canal and pipeline from the Salt and Verde Rivers, whose headwaters are in Gila and Yavapai Counties, respectively. Dana Ana County, New Mexico, has a very high watershed importance index, and also a high likelihood of vegetation change. Other New Mexico counties with high watershed importance

indexes, such as Mora and Colfax Counties, have lower vulnerability to climate-related vegetation change, and therefore, lower watershed exposure. Because this index relies on a surface water importance rating, some counties, for example Luna County, New Mexico, has a zero importance rating index because the county almost entirely relies on ground water, not surface water. Hidalgo County, New Mexico, has a very low index score, again because of the reliance on ground water instead of surface water.

Timber Products and Exposure

Detailed geospatial data on areas available and suitable for timber do not exist on a regionwide basis. However, the Forest Service Forest Inventory and Analysis program provides estimates of timberland (defined as forest land exclusive of reserved lands) that is capable of producing at least 20 cubic feet of wood per acre per year; forest land is defined as land that is at least 10 percent stocked by forest trees and not currently developed for nonforest use (Nelson and Vissage 2007).

Table 9. Nonreserved[a] timberland and harvested product, by ownership class, 2012

Ownership class	Thousand acres	Percentage of nonreserved timberland	Percentage of harvested timber product[b]
Arizona			
National Forest	2,227	74%	96.2%
Private and tribal	756	25%	3.7%
Other public	39	1%	0.2%
Total	3,022	100%	100%
New Mexico			
National Forest	2,674	63%	49.7%
Private and tribal	1,412	33%	50.3%
Other public	158	4%	-
Total	4,244	100%	100%

Source: Sorenson et al. 2016

a Timberlands are forests that are capable of producing at least 20 cubic feet per acre per year, which are not reserved (withdrawn from wood extraction by law or statute).

b Timber product includes sawlogs, house logs, fuelwood, fiber logs, energywood logs, posts and poles, furniture logs and viga logs.

Although limited data availability precludes a detailed analysis of climate-change effects on suitable timberland, the ERU vegetation risk data can be leveraged to identify areas where timber vegetation types may be at higher likelihood of change due to climatic changes. Spruce-Fir Forest (ERU code SFF), Mixed Conifer with Aspen (ERU code MCW), Mixed Conifer – Frequent Fire (ERU code MCD), and Ponderosa Pine Forest (ERU code PPF) ERUs are identified as vegetation types that support species appropriate for timber production. Many counties throughout the Southwest have little or no timber vegetation types (table 10).

Summarizing the likelihood of vegetation change for these ERUs associated with timber production can provide an indication of exposure to climate-related vegetation change for areas with vegetation types suitable for timber production. Overall, Triepke et al. (2019) finds Spruce-Fir Forest to be less vulnerable than other ecosystems found at higher elevations. And Mixed Conifer (both types) and Ponderosa Pine Forest found at middle elevations exhibit lower vulnerability in general than high-elevation systems. Table 10 shows counties with minimal timber vegetation are also generally found to be at high risk of

vegetation change. This is due to multiple factors, one of which may be that the timber vegetation types often occupy extents at their lower ecotone and are therefore inherently vulnerable to climate change.

Table 10. Percentage of timber vegetation type ERU area at risk of vegetation change

	Percentage of county with timber vegetation types	Percentage of timber at risk		Percentage of county with timber vegetation types	Percentage of timber at risk
Arizona			**New Mexico**		
Santa Cruz County	0.3%	100%	Eddy County	0.1%	100%
Maricopa County	<0.1%	100%	Harding County	0.1%	100%
Mohave County	0.7%	99%	Chaves County	<0.1%	100%
Cochise County	0.8%	96%	Dona Ana County	<0.1%	100%
Gila County	3.2%	96%	Hidalgo County	<0.1%	100%
Navajo County	9.0%	95%	Luna County	<0.1%	100%
Pima County	0.1%	91%	Bernalillo County	9.4%	90%
Yavapai County	1.2%	91%	Otero County	12.4%	90%
Graham County	2.6%	72%	Valencia County	0.3%	89%
Coconino County	18.8%	51%	Torrance County	4.2%	88%
Apache County	17.3%	39%	Grant County	6.3%	87%
Greenlee County	14.9%	25%	Sierra County	4.6%	84%
La Paz County	0.0%	na*	Lincoln County	6.3%	82%
Pinal County	0.0%	na	Socorro County	4.7%	71%
Yuma County	0.0%	na	McKinley County	8.5%	62%
			San Juan County	18.3%	62%
			Cibola County	14.4%	57%
			Los Alamos County	63.3%	55%
			Catron County	23.1%	44%
			Union County	0.7%	40%
			San Miguel County	4.1%	27%
			Sandoval County	11.1%	26%
			Mora County	29.4%	23%
			Colfax County	38.4%	17%
			Rio Arriba County	38.3%	16%
			Santa Fe County	14.2%	14%
			Taos County	41.0%	9%
			Curry County	0.0%	na
			De Baca County	0.0%	na
			Guadalupe County	0.0%	na
			Lea County	0.0%	na
			Quay County	0.0%	na
			Roosevelt County	0.0%	na

Source: Summary based on Triepke et al. (2019)

* na = not applicable

Recreation

Outdoor recreation is an important benefit provided by the natural environment in the Southwestern Region. According to the Outdoor Industry Association annual report, 59 percent of Arizona residents and 65 percent of New Mexico residents participate in outdoor recreation each year (OIA 2017). National forests in the region receive an estimated 14 million visits per year and represent a wide variety of recreation activities and sites (table 11). BLM estimates 11.6 million visitors annually in both New Mexico and Arizona (table 12). National Park Service sites, which include very high visitation sites such as Grand Canyon National Park and Glen Canyon and Lake Mead National Recreation Areas, estimate 17.5 million visitors annually across the two states (BLM 2019). State parks include an additional 8.2 million recreation visitors (table 14).

Table 11. National forest annual visits with and without downhill skiing

National forest	National forest downhill skiing visits (thousands)	National forest non-downhill skiing visits (thousands)	Total (thousands)
Apache-Sitgreaves	0	830	830
Carson	218	420	638
Cibola	20	1,571	1,591
Coconino	121	4,269	4,390
Coronado	0	1,417	1,417
Gila	0	390	390
Kaibab	1	370	372
Lincoln	57	508	564
Prescott	0	619	619
Santa Fe	152	384	536
Tonto	0	2,580	2,580
Total	**568**	**13,358**	**13,927**

Source: USDA Forest Service, 2020. Year collected varies by forest. Apache-Sitgreaves NF (FY 2018);Carson NF (FY 2018); Cibola NF (FY 2016); Coconino NF (FY 2015);Coronado NF (FY 2017);Gila NF (FY 2016);Kaibab NF (FY 2015);Lincoln NF (FY 2019);Prescott NF (FY 2017);Santa Fe NF (FY 2019);Tonto NF (FY 2016)

Notes:
Ski area management and expense is primarily paid by the private companies who run the ski resorts under special use permit. Given that the Forest Service doesn't need to allocate as many dollars to ski area management relative to other Forest Service facilities, regional planners felt it was important to display recreation use with and without ski use included.

A national forest visit is defined as the entry of one person upon a national forest to participate in recreation activities for an unspecified period of time. A national forest visit can be composed of multiple site visits.

Table 12. Visitation on BLM-managed lands in Arizona and New Mexico

State	Number of visits (thousands)
Arizona	11,632
New Mexico	11,667

Source: BLM 2019

Table 13. National Park Service annual visitation, 2019

National Park Service units, Arizona	Number of visits (thousands)	National Park Service units, New Mexico	Number of visits (thousands)
Canyon de Chelly NM	461	Aztec Ruins NM	64
Casa Grande Ruins NM	68	Bandelier NM	201
Chiricahua NM	61	Capulin Volcano NM	82
Coronado NM	130	Carlsbad Caverns NP	441
Fort Bowie NHS	8	Chaco Culture HP	47
Glen Canyon NRA	4,331	El Malpais NM	159
Grand Canyon NP	5,974	El Morro NM	69
Hubbell Trading Post NHS	50	Fort Union NM	11
Lake Mead NRA*	1,200	Gila Cliff Dwellings NM	67
Montezuma Castle NM	376	Manhattan Project National HP	80
Navajo NM	50	Pecos NP	44
Organ Pipes Cactus NM	263	Petroglyph NM	294
Petrified Forest NP	644	Salinas Pueblo Missions NM	32
Pipe Spring NM	27	White Sands NP	609
Saguaro NP	1,020		
Sunset Crater Volcano NM	108		
Tonto NM	29		
Tumacacori HP	40		
Tuzigoot NM	99		
Walnut Canyon NM	152		
Wupatki NM	187		
Total	**15,278**		**2,200**

Source: NPS 2019a; NPS 2019b

Notes:

National Monument (NM); National Historic Park (NHP); National Park (NP); National Recreation Area (NRA); National Historic Site (NHS)

* Lake Mead NRA visitation has been adjusted to reflect visitation to Arizona locations and exclude visitation to locations in Nevada.

Table 14. State park attendance, FY 2018

State	Visitors total of all day areas (thousands)	Visitors total of all overnight areas (thousands)	Visitors total of all areas (thousands)
Arizona	2,349	840	3,190
New Mexico	1,703	3,306	5,010

Source: Leung et al. 2019

Recreation Activity Exposure to Climate Change

Recreation may be exposed to climatic changes because nature and ecosystem characteristics are key features of the overall outdoor recreation experience. This section discusses recreation exposure to climatic changes based on broad climate-sensitive recreation categories. Hand et al. (2018b) provide a

more detailed discussion of climate effects on recreation. Table 15 is reproduced from Hand et al. (2018b) and provides a summary of expected effects.

Table 15. Summary of climate change effects on recreation

All categories of recreation considered to be potentially sensitive to the effects of climate change were aggregated into five activity categories. Positive (+) and negative (-) signs indicate expected direction of effect on overall benefits derived from recreation activity; (+/-) indicates that both positive and negative effects may occur.
Warm-weather activities (e.g., hiking, camping, sightseeing)
• Magnitude of climate effect: Moderate (+)
• Likelihood of climate effect: High
• Direct effects: Warmer temperature (+), higher likelihood of extreme temperatures (-)
• Indirect effects: Increased incidence, area, and severity of wildfire (+/-); increased smoke from wildfire (-)
Snow-based winter activities (e.g., downhill skiing, cross-country skiing, snowmobiling)
• Magnitude of climate effect: High (-)
• Likelihood of climate effect: High
• Direct effects: Warmer temperature (-), reduced precipitation as snow (-)
• Indirect effects: Increased incidence, area, and severity of wildfire (+/-); increased smoke from wildfire (-)
Wildlife activities
• Magnitude of climate effect: Terrestrial wildlife: low (+); fishing: moderate (-)
• Likelihood of climate effect: Moderate
• Direct effects: Warmer temperature (+); higher incidence of low streamflow (fishing: -); reduced snowpack (hunting: -)
from wildfire (-); reduced cold-water habitat, incursion of warm-water tolerant species (fishing: -)
Gathering forest products
• Magnitude of climate effect: Low (+/-)
• Likelihood of climate effect: Moderate
• Direct effects: Warmer temperature (+)
• Indirect effects: More frequent wildfires (+/-), higher severity wildfires (-)
Water-based activities (not including fishing)
• Magnitude of climate effect: Moderate (+)
• Likelihood of climate effect: Moderate
• Direct effects: Warmer temperature (+), higher likelihood of extreme temperatures (-)
• Indirect effects: Lower streamflows and reservoir levels (-), increase in algal blooms (-)

Source: Reproduced from Hand et al. 2018b.

The 2016 update to the Forest Service Resource Planning Act Assessment provides projections of recreation participation, including an examination of whether climate change is likely to impact these projections and how impacts differ by activity and regions (USDA Forest Service 2016a). These projections span large assessment regions, where Arizona and New Mexico are included in a larger 12-state Rocky Mountain region. Nevertheless, these projections shed light on expected impacts on recreation trends. Climate change could have large effects on participation in some outdoor activities, and smaller impact on others.

Warm-weather activities are the most common climate-sensitive activity by visitors to national forests (table 16) and BLM-managed lands (table 17). Warm-weather activities, such as hiking, camping, and picnicking, are sensitive to climatic change direct effects such as temperature, and indirect effects of climate change on site quality, including vegetation such as wildflowers and shade, and wildfires. Temperature may affect participation as an increase in warm-weather days is positively correlated with participation, while extreme heat is negatively associated. Wildfires have varied effects. Research

suggests that visitation is immediately lower during and after high wildfire activity, but there is limited long-term impact. Climate-induced changes in vegetation could impact nature study and visitor experience.

Table 16. Participation in recreational activities on national forests in Arizona and New Mexico

Activity	Participation* (percentage)	Main activity‡ (percentage)
Warm-weather activities		**48.1%**
Backpacking	0.9%	0.4%
Bicycling	4.2%	2.9%
Developed Camping	5.7%	2.3%
Gathering Forest Products	2.1%	0.6%
Hiking / Walking	58.1%	35.7%
Horseback Riding	0.6%	0.4%
Motorized Trail Activity	2.4%	0.7%
Nature Study	8.3%	0.5%
OHV Use	3.1%	1.7%
Other Motorized Activity	0.2%	0.1%
Picnicking	9.6%	2.0%
Primitive Camping	3.5%	0.9%
Water-based activities, not including fishing		**4.6%**
Motorized Water Activities	2.7%	1.7%
Non-motorized Water	3.4%	2.9%
Wildlife activities		**9.5%**
Fishing	8.4%	5.2%
Hunting	2.3%	1.8%
Viewing Wildlife	34.2%	2.4%
Winter activities		**5.0%**
Cross-country Skiing	0.6%	0.6%
Downhill Skiing	4.6%	4.4%
Snowmobiling	0.1%	0.0%

Source: USDA Forest Service, 2020. Year collected varies by forest. Apache-Sitgreaves NF (FY 2018);Carson NF (FY 2018); Cibola NF (FY 2016); Coconino NF (FY 2015);Coronado NF (FY 2017);Gila NF (FY 2016);Kaibab NF (FY 2015);Lincoln NF (FY 2019);Prescott NF (FY 2017);Santa Fe NF (FY 2019);Tonto NF (FY 2016).

* Survey respondents could select multiple activities. Not all activities are reported as not are included in climate-sensitive categories (e.g., nature center activities, visiting historic sites).

‡ Survey respondents were asked to select just one of their activities as their main reason for the forest visit. Percentages do not sum to 100 because not all visitors report activities, and not all activities are included in climate-sensitive categories (e.g., nature center activities, visiting historic sites).

Table 17. Participation in recreational activities on BLM-managed lands in Arizona and New Mexico

Activity	New Mexico participation* (percentage)	Arizona participation* (percentage)
Warm-weather activities	**39.5**%	**40.4**%
Camping & Picnicking	9.3%	19.6%
Non-Motorized Travel (hiking, biking, and horseback riding)	23.0%	10.4%
Off-Highway Vehicle Travel	7.2%	10.4%
Water-based activities, not including fishing	**4.0**%	**20.4**%
Boating/Motorized	0.1%	15.3%
Boating/Non-Motorized	3.3%	0.4%
Swimming & Other Water Based Activities	0.6%	4.7%
Wildlife activities	**8.4**%	**4.2**%
Fishing	2.1%	1.7%
Hunting & Trapping	6.3%	2.5%
Winter activities	**0.004**%	**0.002**%
Winter/Non-Motorized Activities	0.003%	0.002%
Snowmobiling	0.001%	NA

Source: BLM 2020

* Percentages may not sum to 100 because not all visitors report activities, and not all activities are included in climate-sensitive categories (e.g., nature center activities, visiting historic sites).

Temperature and precipitation changes will have impacts on stream flow and water levels, which affect white water rafting, swimming, boating, and other water sports, making them less available. The Forest Service Resource Planning Act Assessment projections find climate effects decrease participation rates for fishing and hunting (USDA Forest Service 2016a). Fishing activity could be sensitive to changes that impact desired species and catch rates when there is a higher incidence of low streamflow.

Three of the four developed downhill ski areas in Arizona are located on National Forest System lands (or national forest lands) and operated under special use permit. Pajarito Mountain and Angel Fire in New Mexico are located on private land. The remaining seven areas are operated, at least in part, under a special use permit from the Forest Service (table 18).

Projected participation rates in developed skiing show increases across all scenarios included in the Forest Service Resource Planning Act Assessment projections (USDA Forest Service 2016a). The growth in participation rate is primarily driven by higher levels of income. Climate change has mixed effects across regions and scenarios; those effects, in general, are small. The Rocky Mountain region (which includes Arizona and New Mexico in the report) shows a projected 18 percent increase in days per participant, reduced to a 17 percent increase when accounting for climate change. Climate variables may, in fact, be a more significant factor in Arizona and New Mexico if winters with higher maximum temperatures reduce the available opportunities for developed skiing (USDA Forest Service 2016). Other studies find larger negative impacts on recreation visits to developed skiing locations due to reductions in winter season lengths (Wobus et al. 2017). This same study, however, finds locations in arid regions of the Southwest are projected to see increases in season length driven by increases in precipitation, which offset increases in temperature. While still other studies, although not specific to the Southwest, suggest ski area adaptative measures, snow making for example, can mitigate some of the climate-induced impacts (Dawson et al. 2009). Snow making in water-scarce regions will have its own complications.

As with developed skiing, higher maximum winter temperatures would drive declines for undeveloped skiing. Nationally, Forest Service Resource Planning Act Assessment projections suggest considerable effects from warmer and drier conditions as snowmobilers recreate fewer days per year (USDA Forest Service 2016a).

Table 18. Location of winter recreation resorts on National Forest System lands in Arizona and New Mexico

National forest	Ski area
Coconino	Arizona Snowbowl
Coronado	Mt. Lemmon Ski Valley
Kaibab	Elk Ridge – Williams
Carson	Taos Ski Valley Red River Ski Area Sipapu Ski
Lincoln	Ski Apache Ski Cloudcroft
Santa Fe	Santa Fe Ski Basin
Cibola	Sandia Peak

Chapter 3 – Sensitivity: Economic Dependence on Ecosystem Services in the Southwest

Communities in the Southwest depend on ecosystem goods and services from national forests and grasslands in many ways and to various degrees. Patterns of use and trade of ecosystem services, along with other economic characteristics at the local and regional level, influence economic dependence. This chapter provides an analysis of economic dependence on a subset of the ecosystem goods and services listed in table 1.

Regional economic reliance on ecosystem services can be measured through market transactions. Contributions to employment and income from market transactions can be measured by using input-output (I-O) analysis conducted with software packages such as IMPLAN (IMPLAN 2016). However, unlike the previous analysis, this report will use a location quotient to illustrate the relative economic dependence of counties on ecosystem services.

Because the scale of this analysis was the entirety of the two states, I-O analysis to measure the contributions to employment and income from ecosystem services was not appropriate. The intent here is not to measure the contribution of ecosystem services to the entire state, but rather develop an indicator to gauge the relative importance of these goods and services to local economies. Using a metric—a location quotient—allows for comparison across the region of employment and income in various sectors related to ecosystem service provision. The location quotient approach is presented below. This analysis provides insight into the economic reliance of local economies and sectors on ecosystem goods and services.

This chapter also considers economic dependence on other ecosystem services in a qualitative way. These assessments evaluate the reliance on water provided by forests and firewood gathered for personal use and home heating.

Assessing Market Dependence on Resource Sectors by Using Location Quotients

A location quotient is a statistic that measures a region's (in this case, a county's) industrial specialization relative to a larger geographic unit (in this case the state). A location quotient is computed as an industry's share of a county's total for some economic statistic (income, employment, etc.) divided by the industry's share of the state total for the same statistic. For example, a location quotient of 1.0 in ranching means that the county and the state are equally specialized in ranching; while a location quotient of 1.8 means that the county has a higher concentration in ranching related employment, for example, than the state.

An advantage of this approach is that it avoids making assumptions about the structure of the regional economy in the future as climate change affects ecosystem services (Rosenberg 1993). Similarly, no assumptions about input substitution and changes in local and regional trade patterns that may result from the effects of climate change on ecosystem services are made (Rose et al. 2000). Thus, this analysis simply provides a current "snapshot" of the relative size of various resource-dependent sectors in the economy, but not what the economy will look like in the future under a changed climate.

This analysis uses IMPLAN datasets without completing an I-O analysis. IMPLAN data contain 536 sectors representing all private industries in the United States. These 536 sectors are a compilation of the North American Industry Classification System (NAICS) codes. Employment and employee compensation, among other data points are compiled by IMPLAN for each of the 536 sectors and are available at the national, state, and county level. In many cases, county-level published data are not available from other sources. For example, Bureau of Economic Analysis data contain non-disclosed data points to preserve industry confidentiality. For the researcher, this would mean additional work to generate valid assumptions and inferences needed to interpolate missing data. IMPLAN's scientists compile and convert data from multiple data sources into a single consistent, comprehensive dataset.

Therefore, the use of IMPLAN's underlying data provides a single comprehensive economic dataset for the needed county-level data for this analysis. This analysis is only completed at the county level.

Timber and Forest Products

Timber harvests from lands in Arizona and New Mexico have varied over time with changing market and policy conditions. Trends on timber products harvested from all lands in Arizona and New Mexico were obtained from the Four Corners Timber Harvest and Forest Products Industry, 2012 report (Sorenson et al. 2016). Trends on the harvest of forest products from national forests in the Southwestern Region were obtained from reports on cut and sold timber (USDA Forest Service 2018). National forests account for 74 and 63 percent of nonreserved timberland in Arizona and New Mexico, respectively (table 9; Sorenson et al. 2016). In 2012, these national forest lands contributed 96 and 50 percent of all timber products harvested in Arizona and New Mexico, respectively (table 9; Sorenson et al. 2016). National forest lands contribution to total harvest has varied over time and by state. Arizona saw a marked increase in the share of timber from national forests since the 2007 report (Sorenson et al. 2016). Sorenson et al. (2016) report this is due to inactivity of the major users of timber from public and tribal lands (Sorenson et al. 2016, p. 15).

Timber harvests on national forest lands have decreased sharply from the late 1980s throughout the Nation and in the Southwest (figure 6) and remained at comparatively low levels during the 2000s. This suggests a change in the role of public forest land from traditional commodity use to ecosystem service protection (Hand et al. 2018). Timber harvested from all land ownerships (national forest, private, tribal and other public) in each state follows similar trends (table 19, table 20).

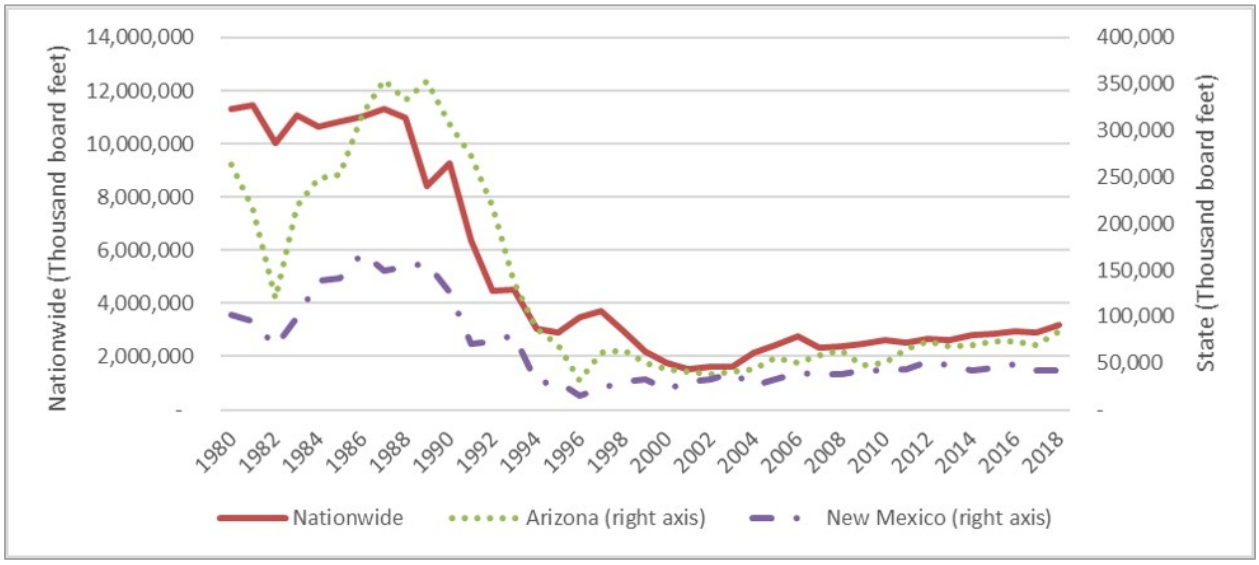


Figure 6. Annual timber cut from national forest land in Arizona, New Mexico, and total from all national forest land in the United States (USDA Forest Service 2018)

Timber harvest data may not reflect the economic dependence of local economies on the forest product sector. For this, industry employment in the timber harvesting and processing sectors are presented to determine a county's relative economic dependence, in terms of employment, on timber and forest products. Sorenson et al. (2016) reports that the majority (97 percent in 2012) of Arizona timber harvest was processed in-state. Some harvested timber flows to Colorado for processing, while a small amount flows into Arizona from New Mexico and Oregon for processing (Sorenson et al. 2016). New Mexico also processed the majority of timber harvested in-state (78 percent in 2012). Colorado and Texas

processed much of the remainder of the timber harvest, and a small amount from Colorado and Montana flowed into New Mexico for processing.

Table 19. Timber harvest by Arizona county, selected years

County	1984	1998	2002	2007	2012	1984	1998	2002	2007	2012
	----------Thousand board feet----------					----------Percentage[b]----------				
Apache	171,128	15,641	6,350	31,610	23,916	44.7	20.5	5	58.8	33.5
Coconino	150,727	15,314	14,889	14,353	32,118	39.4	20.1	11.6	26.7	45
Gila	931	5,405	39,960	1,960	2,729	0.2	7.1	31.2	3.6	3.8
Graham	-	-	1,100	1,100	-	-	-	0.9	2	-
Greenlee	4,623	1,515	-	-	-	1.2	2	-	-	-
Maricopa	-	-	-	-	-	-	-	-	a	a
Navajo	52,745	38,384	64,027	3,094	8,938	13.8	50.3	49.9	5.8	12.5
Pima	-	33	-	-	12	-	a	-	-	0
Santa Cruz	-	-	-	48	120	-	-	-	0.1	0.2
Yavapai	2,220	20	1,895	1,612	3,585	0.6	a	1.5	3	5
Arizona Total	382,674	76,312	128,220	53,777	71,418	100	100	100	100	100

Source: Table reproduced from Sorenson et al. 2016

a Less than 0.05 percent

b Percentages may not sum to 100 percent due to rounding.

Industries included in the forest products sector are described in table 21. We discussed the advantages of using the IMPLAN dataset earlier. One drawback for this analysis is the aggregation of all forestry and agriculture support service sectors (NAICS 115) into a single IMPLAN sector (19). This aggregation results in a sector representation much larger than desirable for an analysis of only forestry-related industries, and therefore, support service jobs are excluded from this analysis.

Total employment in the timber and forestry products sectors is small relative to the state-wide economy (table 21). The 18 timber and forest product sectors considered in this analysis make up less than 1 percent of total state-wide employment in both Arizona and New Mexico.

Table 22 presents the forest product sector employment as a percentage of all employment in each county as well as the location quotient. Forest product sector employment is nearly 6 times more concentrated in Navajo County than the state average (table 22). Gila, Graham and Apache Counties in Arizona have location quotients greater than 1, indicating higher than average concentration of forestry product sector employment. In New Mexico, Luna County forest sector employment is over nine times more concentrated than the state average. Similarly, Cibola, McKinley, Catron, Colfax, Mora, San Miguel, Torrance, and Valencia Counties have higher concentrations of forest product sector employment than the state.

The use of the location quotient helps to quantify a county's uniqueness and dependence on these jobs. Understanding areas more susceptible to changes in sector employment may help to inform policy or management actions.

Table 20. Timber harvest by New Mexico county, selected years

County	1966	1986	1997	2002	2007	2012	1966	1986	1997	2002	2007	2012
	----------Thousand board feet----------						----------Percentage[b]----------					
Bernalillo	691	-	490	100	-		0.3	-	0.5	0.1	-	-
Catron	25,588	29,494	2,973	250	1,500	3,009	10.6	17.7	3	0.3	3.8	10.4
Cibola	-	13,857	7,973	15	-	1,523	-	8.3	8.2	a	-	5.3
Colfax	32,853	4,000	18,450	3,777	9,423	4,030	13.6	2.4	18.9	5.1	23.7	14
Eddy	-	548	-	-	-	-	0.3	-	-	-	-	
Grant	538	663	-	-	279	646	0.2	0.4	-	-	0.7	2.2
Lincoln	-	1,450	198	-	1,800	5,495	-	0.9	0.2	-	4.5	19.1
Los Alamos	54	-	-	-	-		a	-	-	-	-	-
McKinley	36,692	-	2,000	-	-		15.1	-	2	-	-	-
Mora	957	3,830	2,040	10,864	215	224	0.4	2.3	2.1	14.6	0.5	0.8
Otero	17,335	16,982	36,866	30,825	18,835	5,121	7.2	10.2	37.8	41.5	47.4	17.8
Rio Arriba	37,156	69,367	17,107	17,869	1,733	4,472	15.3	41.7	17.5	24	4.4	15.5
Sandoval	66,619	5,932	4,360	1,200	2,190	1,849	27.5	3.6	4.5	1.6	5.5	6.4
San Juan	-	8,159	500	-	-		-	4.9	0.5	-	-	-
San Miguel	9,140	2,075	2,259	8,100	795	365	3.8	1.2	2.3	10.9	2	1.3
Santa Fe	-	2,865	-	670	1,000	601	-	1.7	-	0.9	2.5	2.1
Socorro	2,739	-	1,025	220	-	1.1	-	1	0.3	-	-	
Taos	6,767	7,066	1,245	175	2,000	1,506	2.8	4.2	1.3	0.2	5	5.2
Torrance	-	-	120	175	-		-	-	0.1	0.2	-	-
Valencia	4,548	-	20	120	-		1.9	-	a	0.2	-	-
New Mexico Total	242,313	166,342	97,626	74,361	39,770	28,839	100	100	100	100	100	100

Source: Table reproduced from Sorenson et al. 2016

a Less than 0.05 percent

b Percentages may not sum to 100 percent due to rounding.

Table 21. IMPLAN sectors used to assess dependence on timber and forest products, Arizona

IMPLAN sector	Description	Arizona sector employment	Percentage of total Arizona employment	New Mexico sector employment	Percentage of total New Mexico employment
	Total, all timber and forest products sectors	6,076	0.17%	2,306	0.21%
15	Forestry, forest products, and timber tract production	123	<0.01%	36	<0.01%
16	Commercial logging	328	0.01%	596	0.05%
134	Sawmills	172	<0.01%	197	0.02%
135	Wood preservation	18	<0.01%	28	<0.01%
136	Veneer and plywood manufacturing	21	<0.01%	0	<0.01%
137	Engineered wood member and truss manufacturing	829	0.02%	127	0.01%
138	Reconstituted wood product manufacturing	47	<0.01%	0	<0.01%
139	Wood windows and door manufacturing	776	0.02%	169	0.02%
140	Cut stock, resawing lumber, and planing	41	<0.01%	57	0.01%
141	Other millwork, including flooring	414	0.01%	155	0.01%
142	Wood container and pallet manufacturing	770	0.02%	53	<0.01%
143	Manufactured home (mobile home) manufacturing	1,123	0.03%	370	0.03%
144	Prefabricated wood building manufacturing	281	0.01%	76	0.01%
145	All other miscellaneous wood product manufacturing	427	0.01%	97	0.01%
146	Pulp mills	0	<0.01%	0	<0.01%
147	Paper mills	17	<0.01%	200	0.02%
148	Paperboard mills	76	<0.01%	0	<0.01%
149	Paperboard container manufacturing	614	0.02%	143	0.01%

Source: IMPLAN 2016

Table 22. Timber and forest product sector employment by county

	Percentage of total employment	Location quotient		Percentage of total employment	Location quotient
Arizona	**0.2%**		**New Mexico**	**0.2%**	
Apache County	0.3%	1.5	Bernalillo County	0.2%	0.8
Cochise County	0.1%	0.3	Catron County	0.9%	4.4
Coconino County	0.1%	0.7	Chaves County	0.1%	0.5
Gila County	0.5%	3.1	Cibola County	1.2%	5.6
Graham County	0.5%	3.0	Colfax County	0.4%	2.0
Greenlee County	0.1%	0.3	Curry County	0.1%	0.3
La Paz County	0.1%	0.6	DeBaca County	0.0%	0.1
Maricopa County	0.2%	1.0	Dona Ana County	0.1%	0.7
Mohave County	0.1%	0.4	Eddy County	0.0%	0.1
Navajo County	0.9%	5.6	Grant County	0.1%	0.4
Pima County	0.1%	0.6	Guadalupe County	0.0%	0.1
Pinal County	0.1%	0.7	Harding County	0.1%	0.3
Santa Cruz County	0.1%	0.5	Hidalgo County	0.0%	0.1
Yavapai County	0.1%	0.7	Lea County	0.1%	0.4
Yuma County	0.2%	1.0	Lincoln County	0.3%	1.3
			Los Alamos County	0.0%	0.0
			Luna County	2.0%	9.4
			McKinley County	1.0%	4.7
			Mora County	0.7%	3.4
			Otero County	0.1%	0.4
			Quay County	0.1%	0.3
			Rio Arriba County	0.2%	0.8
			Roosevelt County	0.1%	0.4
			San Juan County	0.2%	1.0
			San Miguel County	0.5%	2.4
			Sandoval County	0.1%	0.5
			Santa Fe County	0.1%	0.7
			Sierra County	0.4%	1.8
			Socorro County	0.0%	0.1
			Taos County	0.4%	1.7
			Torrance County	0.5%	2.5
			Union County	0.1%	0.3
			Valencia County	0.5%	2.2

Source: IMPLAN 2016

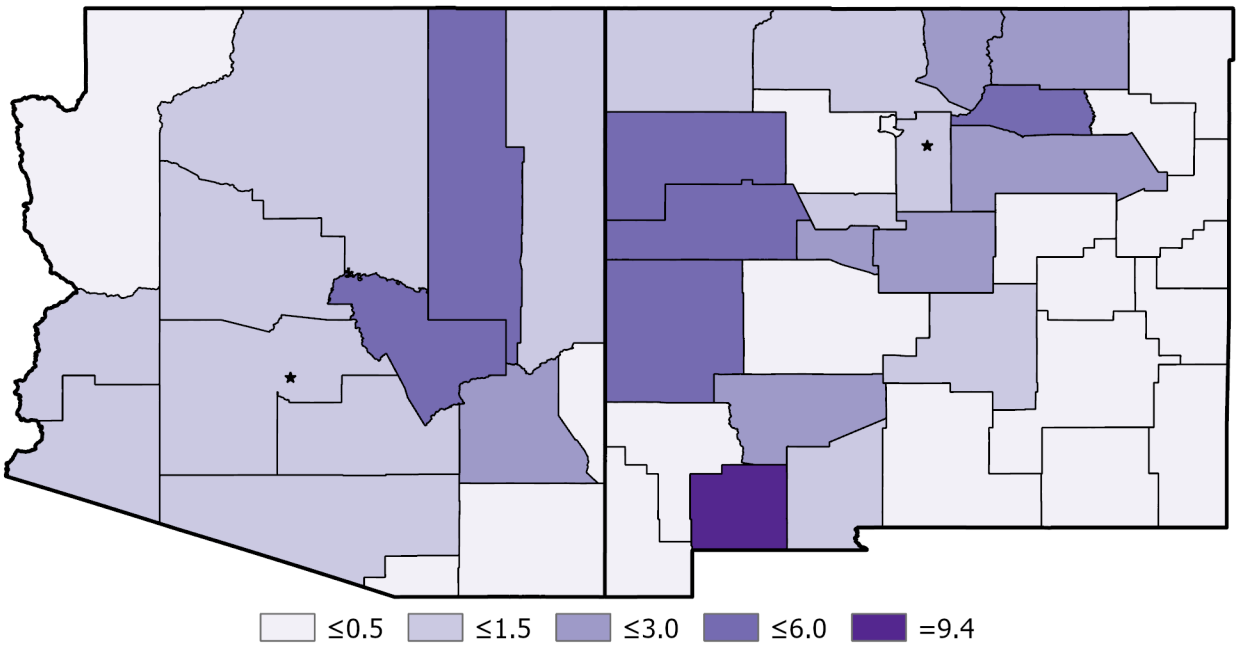


Figure 7. Timber and forest product sector employment location quotient (IMPLAN 2016)

Rangeland grazing

Livestock grazing is an important cultural tradition in the Southwestern communities, but also supports employment and income in local economies. The section Uses and Roles of Ecosystems in the Southwest presents inventories and numbers of livestock producing farms as a proxy for the prevalence of rangeland as a utilized ecosystem service as well as assessing these farm's exposure to climate induced vegetation change. Estimates of employment in livestock economic sectors will be used to gauge local economic dependence on this ecosystem service.

Industries included in the livestock sector are described in table 23. This follows the selection used in Hand et al. (2018). Using IMPLAN data provides a single comprehensive economic dataset for the needed county-level data for this analysis, as discussed earlier (Assessing Market Dependence on Resource Sectors by Using Location Quotients). IMPLAN Sector 14 is included to capture non-cattle livestock that require forage, such as sheep and goats. IMPLAN estimates of employment include self-employed individuals as is common in the agricultural sector.

Table 23. IMPLAN sectors used to asses economic contributions of livestock grazing

IMPLAN sector	Description	Arizona employment	Percentage of total Arizona employment	New Mexico employment	Percentage of total New Mexico employment
11	Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	5,285	0.15%	12,767	1.2%
14	Animal production, except cattle and poultry and eggs	1,226	0.03%	620	0.1%

Source: IMPLAN 2016

While the number of farms and number of animals are one indicator of the importance of grazing within and across counties, employment is another means to assess the economic importance of these sectors.

Grazing sector employment location quotients are presented, which, as discussed earlier, are a means to illustrate the relative concentration, or relative dependence across counties.

Apache and Navajo Counties in Arizona have extremely high concentrations of employment in these grazing-related sectors at 40 and 26 times more concentrated than the state average. Harding and Mora Counties in New Mexico have grazing-related employment concentrations over 31 and 24 times the state average. Carton and Union Counties in New Mexico also have significantly greater concentrations of employment in these sectors relative to the state.

Table 24. Employment in grazing-related sectors, by county

	Percentage of total employment	Location quotient		Percentage of total employment	Location quotient
Arizona	**0.2%**		**New Mexico**	**1.2%**	
Apache County	7.2%	40.0	Bernalillo County	0.1%	0.1
Cochise County	0.2%	1.1	Catron County	18.7%	15.4
Coconino County	1.3%	7.0	Chaves County	0.9%	0.8
Gila County	0.3%	1.4	Cibola County	3.7%	3.1
Graham County	0.5%	2.6	Colfax County	3.1%	2.6
Greenlee County	0.5%	2.9	Curry County	1.5%	1.2
La Paz County	0.1%	0.5	DeBaca County	11.0%	9.0
Maricopa County	0.0%	0.1	Dona Ana County	0.4%	0.3
Mohave County	0.1%	0.7	Eddy County	0.5%	0.4
Navajo County	4.7%	25.9	Grant County	2.4%	2.0
Pima County	0.0%	0.1	Guadalupe County	11.0%	9.1
Pinal County	0.3%	1.8	Harding County	37.9%	31.2
Santa Cruz County	0.4%	2.3	Hidalgo County	3.2%	2.7
Yavapai County	0.4%	2.3	Lea County	0.6%	0.5
Yuma County	0.0%	0.3	Lincoln County	2.7%	2.2
			Los Alamos County	0.0%	0.0
			Luna County	0.5%	0.4
			McKinley County	6.1%	5.0
			Mora County	29.9%	24.6
			Otero County	1.0%	0.8
			Quay County	10.7%	8.8
			Rio Arriba County	6.5%	5.3
			Roosevelt County	3.5%	2.9
			San Juan County	1.1%	0.9
			San Miguel County	6.1%	5.0
			Sandoval County	1.3%	1.1
			Santa Fe County	0.3%	0.3
			Sierra County	1.6%	1.3
			Socorro County	4.5%	3.7
			Taos County	2.5%	2.1
			Torrance County	9.2%	7.6
			Union County	13.3%	11.0
			Valencia County	3.1%	2.6

Source: IMPLAN 2016

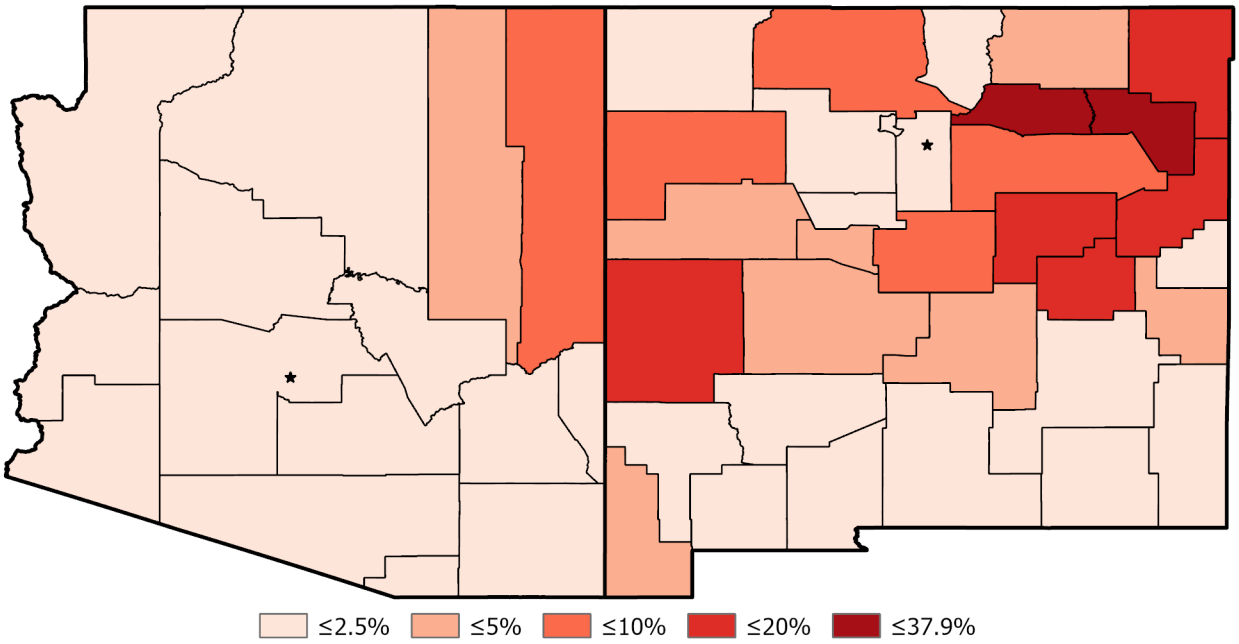


Figure 8. Employment in grazing-related sectors as a percentage of total county employment (IMPLAN 2016)

Nature-Based Recreation

The outdoor recreation economy accounted for 2.2 percent of the Nation's gross domestic product (GDP) in 2017 (BEA 2019) and grew faster than the overall U.S. economy. New statistics released in 2019 present estimates of the outdoor recreation economy by state. Arizona and New Mexico have outdoor recreation contributions to state GDP slightly higher than the national average at 2.7 and 2.5 percent, respectively. For context, state-level contributions ranged from 5.4 percent of GDP in Hawaii to 1.4 percent of GDP in Connecticut. Activities included in this accounting span from conventional outdoor recreation activities such as camping, hiking, and boating to other outdoor recreation activities such as gardening and outdoor concerts, and includes supporting activities such as travel and tourism, and construction and government expenditures. Conventional outdoor recreation actives—including boating and fishing, "RVing" and snow activities—make up about 25 percent of the total outdoor recreation GDP contribution in both states.

National forests and grasslands provide multiple benefits to people and communities including supporting local economies. Annually, the Forest Service estimates the economic links between natural resource management on National Forest System lands and local jobs and income. Recreation is often a large contributor to local economies relative to other resource areas. Table 25 shows the recreation visitor expenditures, which along with visitation estimates (table 11), are used to estimate the tie between management actions and economic activity in the communities surrounding national forests and grasslands. Expenditures of local and non-local visitors to National Forest System lands are used to estimate the contributions to the local economy (table 26).

Climate-induced impacts to recreation will not be felt evenly across all regions or communities. The diversity of visitation (table 11, table 12, table 13, table 14), activities (table 16, table 17) and expenditures (table 25) illustrate the importance and diversity of recreation to local economies.

Table 25. Annual expenditures (in thousands of $2016) by visitors to national forests in Arizona and New Mexico, by recreation use

	Wildlife and fish Local	Wildlife and fish Non-local	Downhill resorts Local	Downhill resorts Non-local	All other recreation activities Local	All other recreation activities Non-local
Arizona	$16,093	$38,232	$1,071	$9,984	$90,662	$443,525
New Mexico	$3,883	$12,318	$5,759	$41,917	$33,266	$84,676

Source: USDA Forest Service, n.d.

Note: Non-local refers to trips by visitors who reported a ZIP code greater than 30 miles from a national forest boundary. Expenditures within 50 miles of a national forest.

Table 26. Jobs and labor income supported by visitors to national forests in Arizona and New Mexico

	Recreation by local visitors		Recreation by non-local visitors	
	Total jobs (average annual)	Total labor income (annual, 1,000 $2016)	Total jobs (average annual)	Total labor income (annual, 1,000 $2016)
Arizona	1,440	$45,328	6,900	$232,428
New Mexico	630	$17,845	1,880	$51,312

Source: USDA Forest Service, n.d.

Dependence on Resources not Measured in Market Transactions

Water

Regional dependence on land areas most important for drinking water is examined to demonstrate surface area role in providing this ecosystem service. This analysis is based directly on the USDA Forest Service *Forests to Faucets* project that uses GIS to model and map continental United States land areas most important to surface drinking water.

Higher indexed counties tend to be associated with surface water sources that supply urban areas and larger populations. Maricopa County, Arizona, is the most populous county in the state, while Gila County contains parts of the Salt River Project, which conveys surface water from the Verde River and Salt River watersheds that lie to the north and east of Phoenix, and supplies about half of the water for the city (City of Phoenix 2020). Because this index relies on a surface water importance rating, some counties, for example Luna and Hidalgo Counties, New Mexico, have a zero-importance rating index because the county almost entirely relies on ground water, not surface water.

Table 27. Importance of surface water sources for municipal drinking water

	Surface Drinking water Importance Index		Surface Drinking water Importance Index
Arizona		**New Mexico**	
Gila County	44.8	Colfax County	31.5
Yavapai County	32.7	Mora County	30.0
Maricopa County	24.0	Rio Arriba County	29.0
Yuma County	18.4	Los Alamos County	24.1
La Paz County	13.4	Dona Ana County	23.0
Pinal County	12.8	Sierra County	22.9
Greenlee County	11.8	Taos County	21.6
Mohave County	11.7	San Miguel County	19.5
Pima County	11.5	Santa Fe County	17.7
Coconino County	10.3	Union County	16.9
Apache County	6.8	San Juan County	16.1
Graham County	6.5	Sandoval County	15.6
Navajo County	6.4	Quay County	13.5
Santa Cruz County	3.0	Lea County	12.2
Cochise County	0.9	Valencia County	10.6
		Lincoln County	10.3
		Harding County	9.8
		Bernalillo County	9.7
		Socorro County	7.8
		Otero County	6.9
		Cibola County	6.1
		McKinley County	5.4
		Eddy County	5.4
		Chaves County	5.1
		Guadalupe County	5.1
		De Baca County	4.7
		Curry County	3.8
		Torrance County	2.8
		Catron County	1.8
		Grant County	0.7
		Roosevelt County	0.5
		Hidalgo County	0.0
		Luna County	0.0

Source: Weidner and Todd. 2011

Note: Larger values represent important watersheds for drinking water.

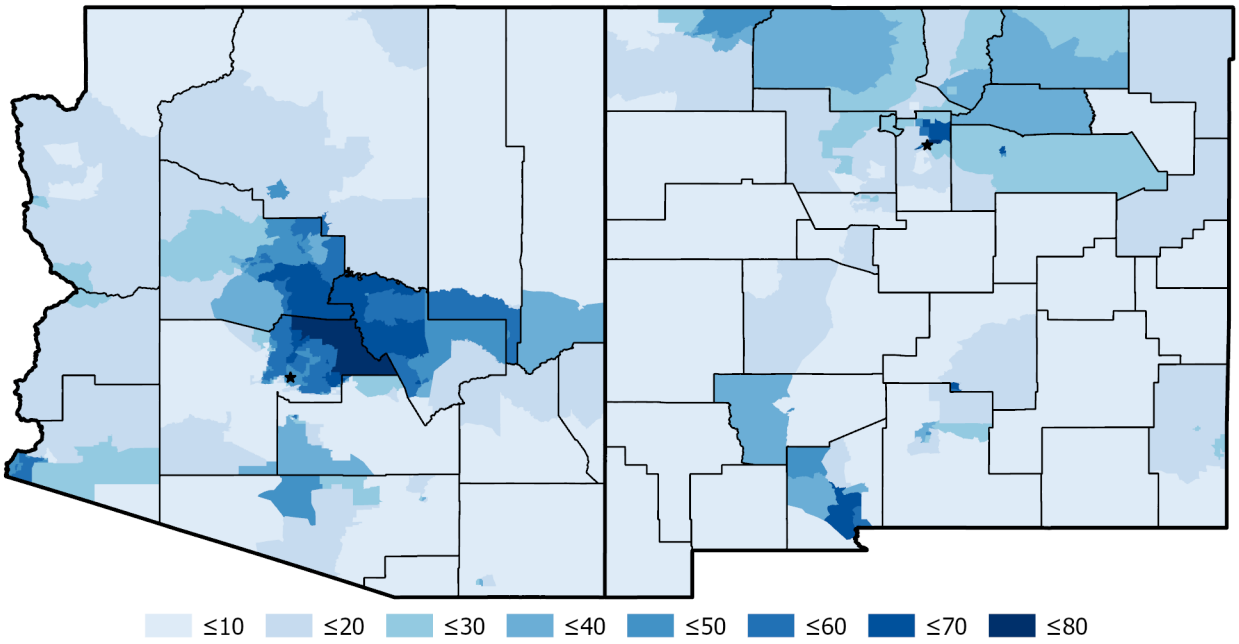


Figure 9. Surface drinking water importance index, by census tract (Weidner and Todd 2011)

Wood as a Home Heating Source

Harvesting firewood from forests supports both heritage values and economic well-being, and national forests are a major source of firewood in the Southwest. Indeed, demand for woody material from the Tonto National Forest, for example, is at present largely driven by fuelwood needs (USDA Forest Service 2017). Firewood provides fuel for cooking and winter heating, offers economic opportunities, and contributes to traditional ceremonies. For some in the region, gathering firewood also strengthens ties to ancestral lands.

Firewood gathering is particularly important in northern New Mexico. For centuries, Hispano communities in northern New Mexico have relied on firewood as their primary fuel and as a part of their cultural heritage (Raish 2000). High poverty rates in the region underscore the importance of affordable fuel sources, such as firewood.

In addition to high firewood dependence in northern New Mexico, these data show the importance of firewood gathering to tribes in Arizona. The three Arizona counties with high firewood dependence also contain large shares of tribal lands (table 28). Nearly 40 percent of Coconino County and about two-thirds of both Apache and Navajo Counties form all or part of the Hopi Indian Reservation, Navajo Nation, and the Fort Apache Indian Reservation (USGS 2012). Many homes on the Hopi and Navajo Reservations heat with both wood and coal. Recent closures of coal mines in this region will likely put upward pressure on wood for home heating (KANU 2020).

Communities that are highly dependent on wood heating may be vulnerable to changes in the availability of firewood. Firewood availability may be affected if climate change induces vegetation change through fire or disease, affects the price of alternative fuel sources, and alters the demand for firewood.

Table 28. Use of wood for home heating, by county, 2017

County	Percentage of households heating with wood	County	Percentage of households heating with wood
Arizona		**New Mexico**	
Apache County	62.1%	Bernalillo County	1.9%
Cochise County	3.3%	Catron County	45.4%
Coconino County	17.2%	Chaves County	1.6%
Gila County	13.2%	Cibola County	17.2%
Graham County	4.6%	Colfax County	13.2%
Greenlee County	4.2%	Curry County	1.3%
La Paz County	2.5%	De Baca County	5.9%
Maricopa County	0.1%	Dona Ana County	2.0%
Mohave County	2.7%	Eddy County	0.9%
Navajo County	37.1%	Grant County	12.4%
Pima County	0.4%	Guadalupe County	9.2%
Pinal County	0.4%	Harding County	32.0%
Santa Cruz County	2.0%	Hidalgo County	9.3%
Yavapai County	4.4%	Lea County	0.5%
Yuma County	0.1%	Lincoln County	13.1%
		Los Alamos County	2.2%
		Luna County	3.4%
		McKinley County	39.2%
		Mora County	70.7%
		Otero County	8.2%
		Quay County	4.5%
		Rio Arriba County	19.0%
		Roosevelt County	2.2%
		San Juan County	14.4%
		San Miguel County	39.2%
		Sandoval County	5.0%
		Santa Fe County	5.8%
		Sierra County	5.9%
		Socorro County	19.5%
		Taos County	27.8%
		Torrance County	21.2%
		Union County	9.9%
		Valencia County	8.0%

Source: U.S. Census Bureau 2018

Cultural and Spiritual Values Associated with Southwestern Region Lands

Numerous sites and resources contribute to cultural and spiritual values. Special forest products such as boughs and plants are collected for food, medicinal and ceremonial uses from public and private lands (USDA Forest Service 2008, 2009b). Species that are collected for medicinal or ceremonial use include manzanita, cacti and agave, emery oak, pinyon pine, cattails, willow, and other seed and plant. The collection of these materials is an integral part of individuals' connection to the land.

One example, piñon nuts or seeds have been a key dietary staple to people of the Southwest and are still a popular food item available in grocery stores and at road-side stands. The Santa Fe National Forest Assessment Report finds harvest of piñon nuts on National Forest System lands decreased following drought because piñon nuts are highly susceptible to drought. In addition, die-off of pinyon pines weakened by drought and attacked by Ips beetles in New Mexico forests has further decreased seed production (USDA Forest Service 2016b). Climate change may continue to influence the availability of these products.

In addition to fuelwood, forests of the Southwest also supply small wood products, such as vigas, latillas, cedar posts, and fencing. The Santa Fe National Forest reports these small miscellaneous products comprise the majority of material cut from National Forest System lands (USDA Forest Service 2016b). These materials are unique to southwestern architecture and the supply could be affected by climate-related vegetation change.

Unique to New Mexico and southern Colorado are acequias, or community ditches. Many of New Mexico's acequia associations have been in existence since the Spanish colonization period of the 17th and 18th centuries. They not only supply water in acequia cultures, but also provide the basis of local government structure. Acequias are recognized under New Mexico law as political subdivisions of the state. While not impervious to changing temperatures and precipitation, these communal irrigation canals' tradition of sharing water in times of water shortages, such as drought, could provide resilience when adapting to climate change.

Sites on National Forest System lands such as the San Francisco Peaks in the Coconino National Forest, Mount Graham in the Coronado National Forest, and the White Mountains in the Lincoln National Forest have particular spiritual importance for tribes in the region. As do sites found on tribal lands or public lands in the Southwest managed by the National Park Service and Bureau of Land Management such as Ribbon Falls, I'ito (Montezuma's Head), 'Oks Daha (Old Woman Sitting), Canyon de Chelly, Mt. Baboquivari, Black Mesa, Zuni Salt Lake, Chaco Canyon, and Stone Lion shrines of Yapashi. Although climate change may not alter the presence or spiritual importance of these sites, it may affect ecological health and access to the sites. Such changes may inhibit enjoyment of sacred sites around the region. In addition, paleontological resources, heritage resources, and research areas in the region offer opportunities for scientific discovery of national or global importance (USDA Forest Service 2011). More frequent and intense wildfires could result in site and artifact damage.

Cultural and spiritual values may be difficult—and undesirable—to quantify and monetize. These are nonmarket values: goods and services that lack markets, and therefore, prices. The lack of prices, however, does not reflect a lack of value. The spiritual and cultural services provided in the Southwest contribute to resilience, health, and quality of life for the individuals and communities that rely on them.

Chapter 4 – Adaptive Capacity

Household socioeconomic conditions may play a role in the resilience of households to adapt to ecological and economic changes. Wealth, education, and other observable characteristics are associated with the ability to adjust household activities in response to changes in the supply of ecosystem services.

Income is a primary factor in household well-being and is believed to be negatively correlated with vulnerability (Yohe and Tol 2002). Similarly, household wealth and poverty status may also indicate a household's resources and therefore ability to withstand and adapt to external changes. Higher average education generally reflects more employment opportunities, and therefore, resilience to changes in the labor market. A more detailed overview of the relationship between observable socioeconomic household characteristics and vulnerability is presented in Hand et al. (2018) and CDC (2018).

Hand et al. (2018) developed a county-level index to summarize household socioeconomic conditions that may be related to household adaptive capacity. Their index represents the average household within a county and can be used to indicate where in the Southwest there may be a greater or lesser concentration of households that would have difficulty adapting to changing ecological conditions. Hand et al. (2018). used measures from the American Community Survey, such as income, education and age to generate these indicators (table 29).

Analyzing county-level data is standard for many efforts. This largely is a result of the ease of data availability at this geographic level. However, this level of analysis may mask relevant variability at the community level (for example, where there is high income inequality) and may hide more or less vulnerable populations. For this reason, this report is supplementing the county-level adaptability index presented in Hand et al. (2018) by presenting the Center for Disease Control's Social Vulnerability Index (SVI), which is available at both the county and census tract level.

The CDC created the SVI to provide spatially specific socioeconomic information to help public officials and local planners better prepare communities to respond to emergency events such as severe weather, floods, disease outbreaks, or chemical exposure. The CDC's indicator uses some of the same observable household characteristics that Hand et al. (2018) developed to form their indicators. Table 29 presents the variables used in each of these two approaches.

The SVI ranks census tracts and counties within each state to enable mapping and analysis of vulnerability relative to other census tracts or counties within individual states. The percentile ranking values range from 0 to 1, with higher values indicating greater vulnerability (lower adaptive capacity). The entire dataset, including census tract indexes and rankings is available to all users (CDC 2018) and included in the appendix to this report. Figure 10 presents the county-level SVI ranking for Arizona and New Mexico, and figure 10 show the census-tract ranking for the two states.

The measures developed by Hand et al. (2018) are generally consistent with those in the CDC's SVI in their relative ranking of county adaptive capacity. Counties that consistently show low adaptive capacity include Apache, Santa Cruz, La Paz, Navajo, and Yuma Counties in Arizona, and Luna, McKinley, Cibola, and Guadalupe Counties in New Mexico. The counties that tend to show higher adaptive capacity are urban counties (except for Doña Ana in New Mexico), including Maricopa and Pima Counties in Arizona (which contain Phoenix and Tucson, respectively), and Sandoval, Santa Fe, and Bernalillo Counties in New Mexico (which contain Rio Rancho, Santa Fe, and Albuquerque, respectively). Los Alamos County in New Mexico consistently had the highest index values, indicating the county was the least socioeconomically vulnerable to changes in the provision of forest ecosystem services.

Table 29. Household socioeconomic conditions used in vulnerability and adaptability indices

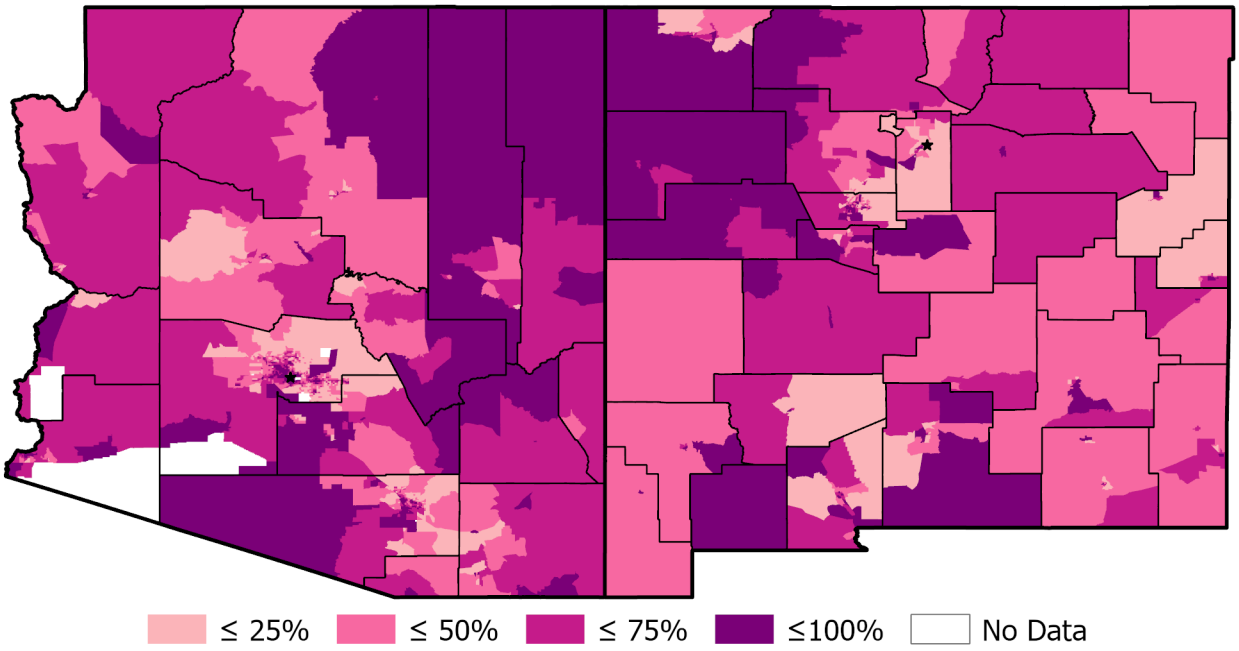
Adaptive Capacity Indices Hand et al. (2018)	Social Vulnerability Index CDC (2018)
Labor force participation	Unemployed
Income	Income
Poverty rate	Below poverty
No high school diploma	No high school diploma
Aged 65 or older	Aged 65 or older
Aged 17 or younger	Aged 17 or younger
Health uninsured	Civilian with a disability
Household receiving public assistance	Single-parent households
	Minority
	Speak English “less than well”
	Multi-unit structures
	Mobile homes
	Crowding
	No vehicle
	Group quarters

Source: Hand et al. 2018 and CDC 2018

The Hand et al. (2018) report was targeted toward National Forest System lands and found no clear trend in adaptive capacity for counties with or without large shares of their land base in national forests and grasslands. Figure 10 presents the census tract-level SVI rankings for Arizona and New Mexico. Figure 11 and figure 12 show two selected counties showing this same information, but at a closer scale to better illustrate the variability of the SVI within a county at the census tract-level.

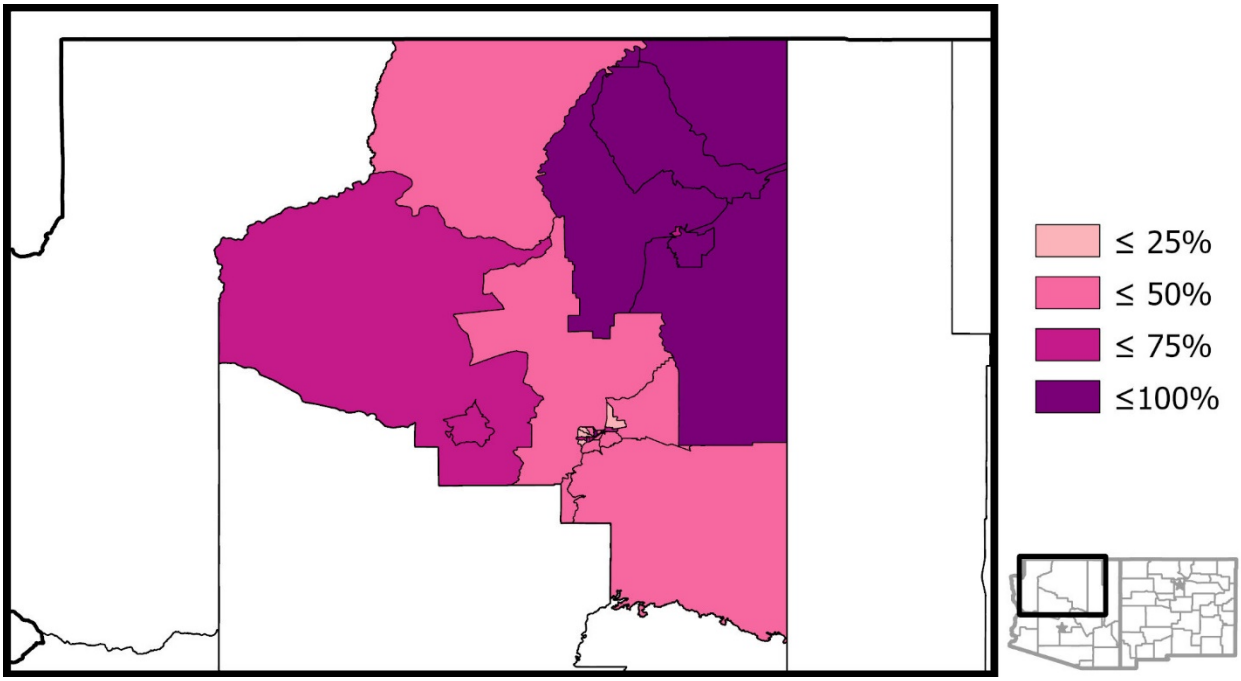
As examples, McKinley County shows minimal variability in SVI across census tracts, while Coconino shows much larger census tract-level variation that might otherwise be masked by the county-level index (figure 11; figure 12). Looking at the SVI measures at a sub-county level may be desirable for certain planning and management activities occurring at a more local level, where a closer understanding of the local population is required.

The presentation of the SVI data in this report is intended to introduce planners to the availability of this type of index, which may help them identify areas where additional support, protection, resources, or aid might be most needed. The vulnerability or ability to adapt is not uniform across households in the Southwest, or even within a county or census tract. So other assessment methods, such as case studies, scenario building, and participatory methods, may overcome some of the limitations of an indicator method (Fischer et al. 2013; Murphy et al. 2015), and could be applied as complementary assessments at scales appropriate to specific management action or decisions. In addition, community-level characteristics, such as social capital, community facilities, and strong governance and institutions, may help households adapt. Adaptive capacity may be a function of both internal and external characteristics and factors (Murphy et al. 2015).



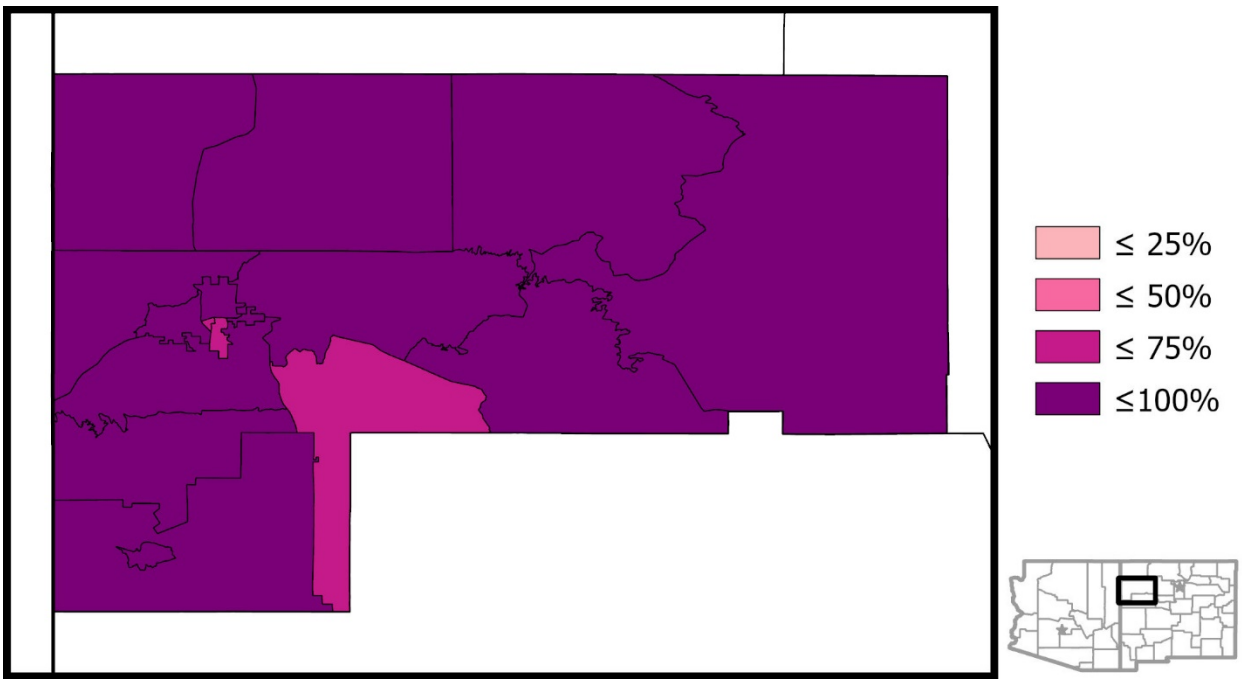
Higher values (darker colors) indicate lower adaptive capacity and greater vulnerability relative to other census tracts within the same state.

Figure 10. CDC's social vulnerability index, percentile ranking by census tract (CDC 2018)



Higher values (darker colors) indicate lower adaptive capacity and greater vulnerability relative to all other census tracts within the same state.

Figure 11. Census tract variability of the social vulnerability index, Coconino County, Arizona (CDC 2018)



Higher values (darker colors) indicate lower adaptive capacity and greater vulnerability relative to all other census tracts within the same state.

Figure 12. Census tract variability of the social vulnerability index, McKinley County, New Mexico (CDC 2018)

Chapter 5 – Incorporating Socioeconomic Vulnerability Assessment Information into Planning

The data and analysis presented in this report are intended to present planners and land managers with information to better understand connections between ecosystem services, socioeconomic well-being, and climate change. This information can be used to plan for the effects of climate change on open space and the effects on the people and communities relying on ecosystem services derived from these lands.

The primary ways in which this information is intended to support planning is to describe ways people and communities are exposed to the potential for climate change to impact ecosystem services and the dependence people and communities may have on these ecosystem services. Further, the quantitative indicators of exposure, sensitivity, and adaptive capacity can be compared throughout the region to indicate areas where climate-related changes are expected to have larger or smaller effects. This information could be used to support planning, increase understanding of tradeoffs, or contribute to prioritization of different management actions.

To support these land management efforts, we created appendix A, which details the sources and methods used to develop each of the indicators presented in the report. In addition, in appendix B, a summary dataset is available with the county and census tract level (when available) indicators. This includes a geographic id for mapping.

Intersecting Exposure, Sensitivity, and Adaptive Capacity

The analysis of adaptive capacity can be used with the analysis of exposure and sensitivity to assess whether socioeconomic conditions may exacerbate or mitigate exposure and sensitivity to ecological changes.

The following figures illustrate all three elements: exposure, sensitivity, and adaptive capacity. In the figures, the overall size of each bubble represents the county's adaptive capacity. A larger bubble is a county with lower average adaptive capacity. As the bubbles move toward the upper right quadrant, the county increases in both exposure to climate-induced vegetation change and sensitivity to such change. A very large bubble found in the far upper right corner of the figure would indicate a county that is highly vulnerable to changes in the ecosystem service represented.

The presentation of a few Arizona counties with very large numbers of livestock farms skews the presentation of data (figure 13). These counties—Apache, Coconino, and Navajo—with 3,961, 1,604, and 2,740 farms, respectively, all fall near the average exposure levels. Coconino County, however, has an adaptive capacity index above average, suggesting households are more resilient to change, on average. Navajo and Apache Counties have adaptive capacity index well below average, as represented by the large bubble sizes.

Yuma County, with the lowest relative adaptive capacity, and the highest likelihood of vegetation change, also has a more minimal number of livestock farms, suggesting the sensitivity to rangeland exposure is low.

Gila County, Arizona, stands out in figure 15 with its very high Watershed Importance Index. Although exposure is below average and adaptive capacity is above average. Yuma and La Paz Counties in Arizona are found to have high values for all three indexes, placing these counties as among the most vulnerable (figure 15 and figure 16).

Arizona

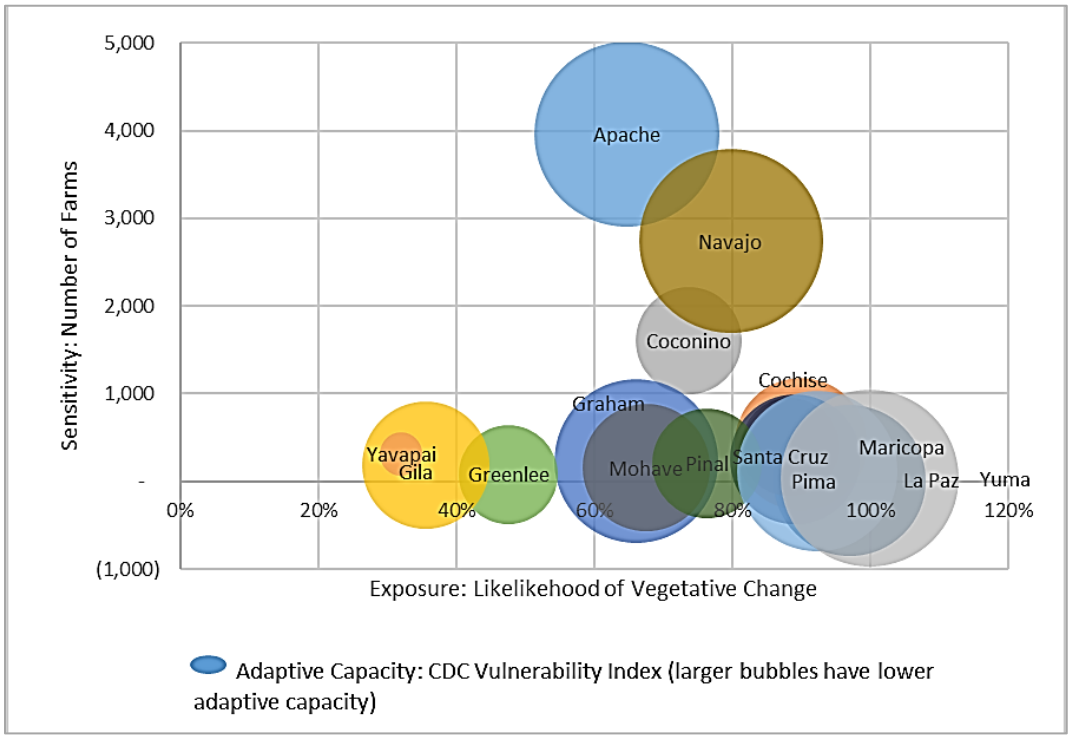
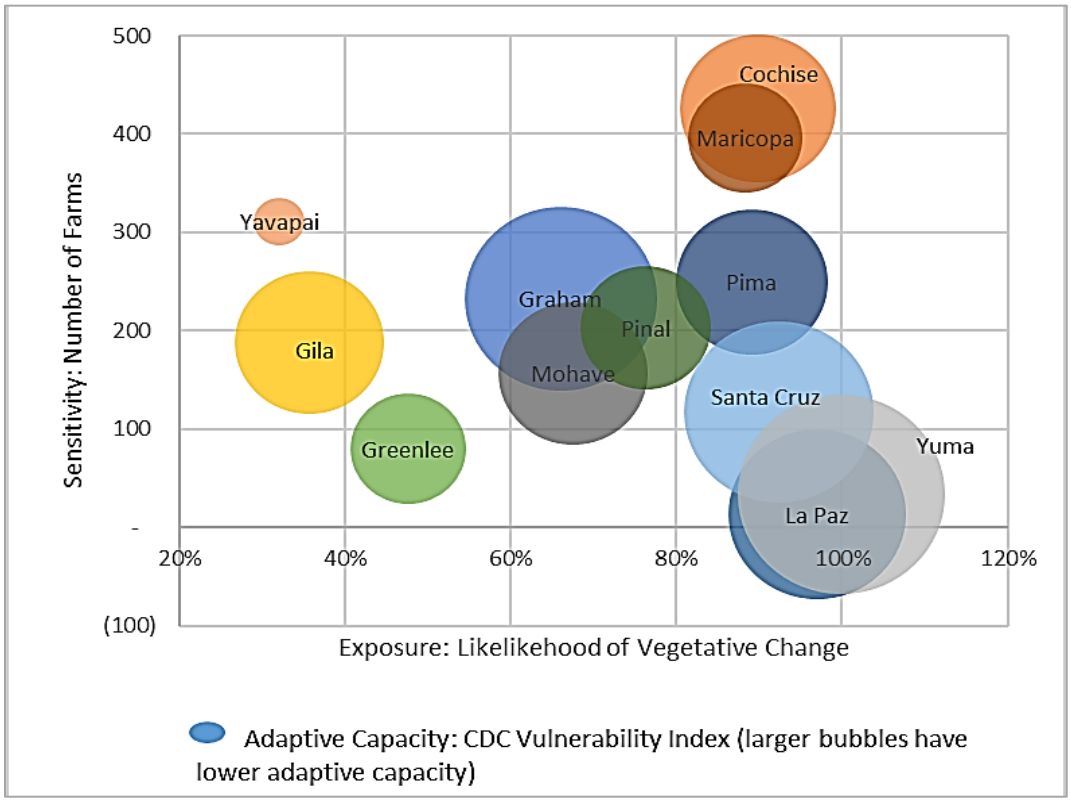


Figure 13. Range exposure, sensitivity, and adaptive capacity, all Arizona counties



Note: Apache, Navajo, and Coconino Counties are not represented to show details of remaining counties.

Figure 14. Range exposure, sensitivity, and adaptive capacity, by selected Arizona county

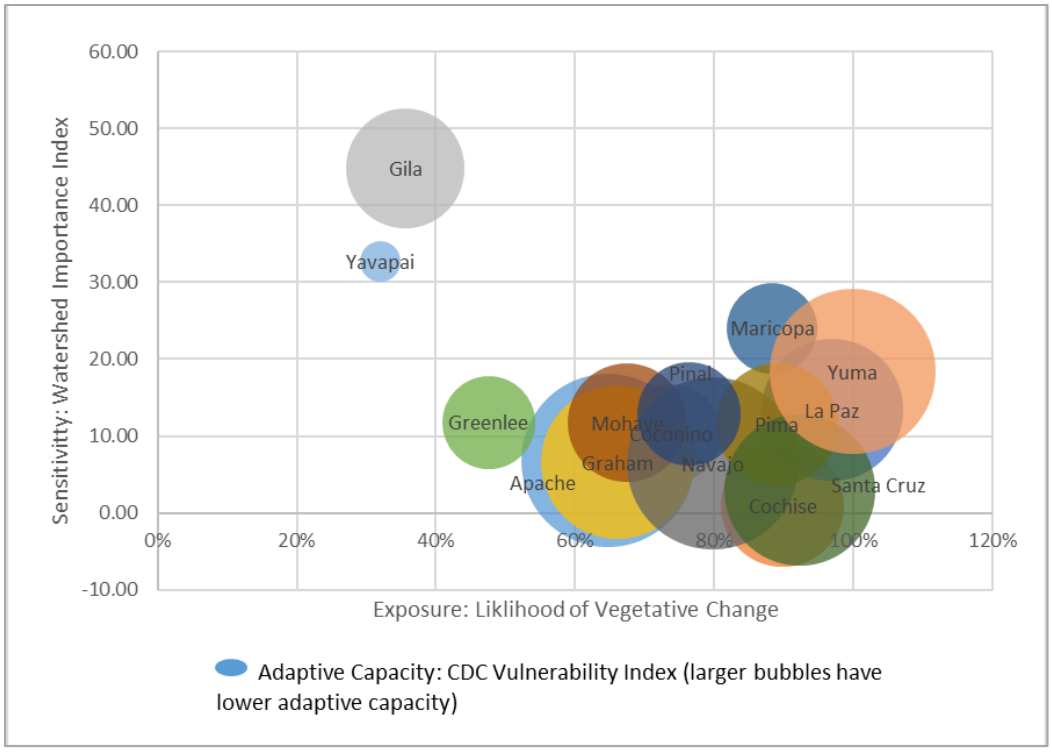
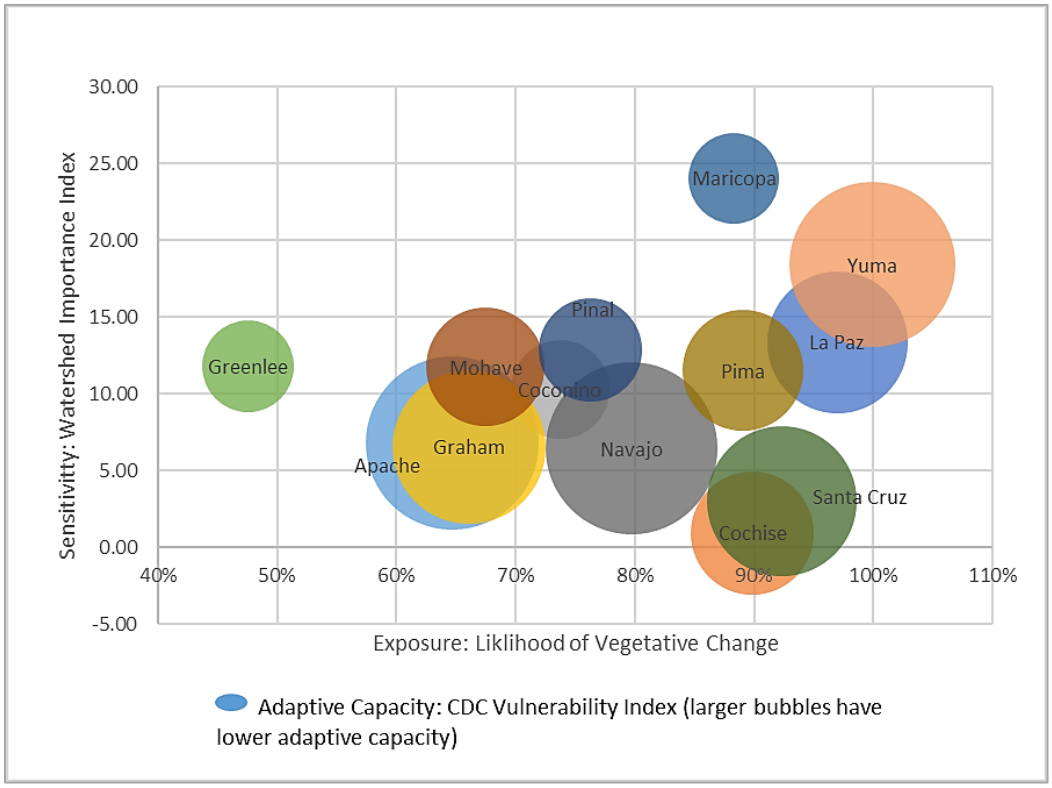


Figure 15. Watershed exposure, sensitivity, and adaptive capacity, all Arizona counties



Note: Gila and Yavapai Counties are not represented to show detail of remaining counties.

Figure 16. Watershed exposure, sensitivity, and adaptive capacity, by selected Arizona county

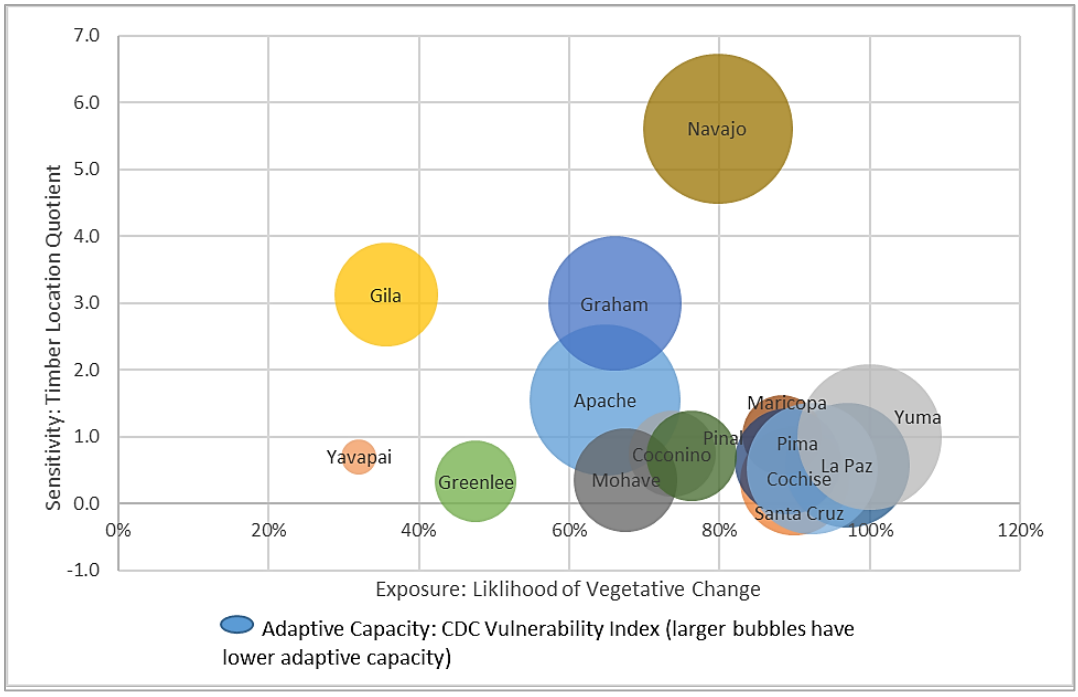
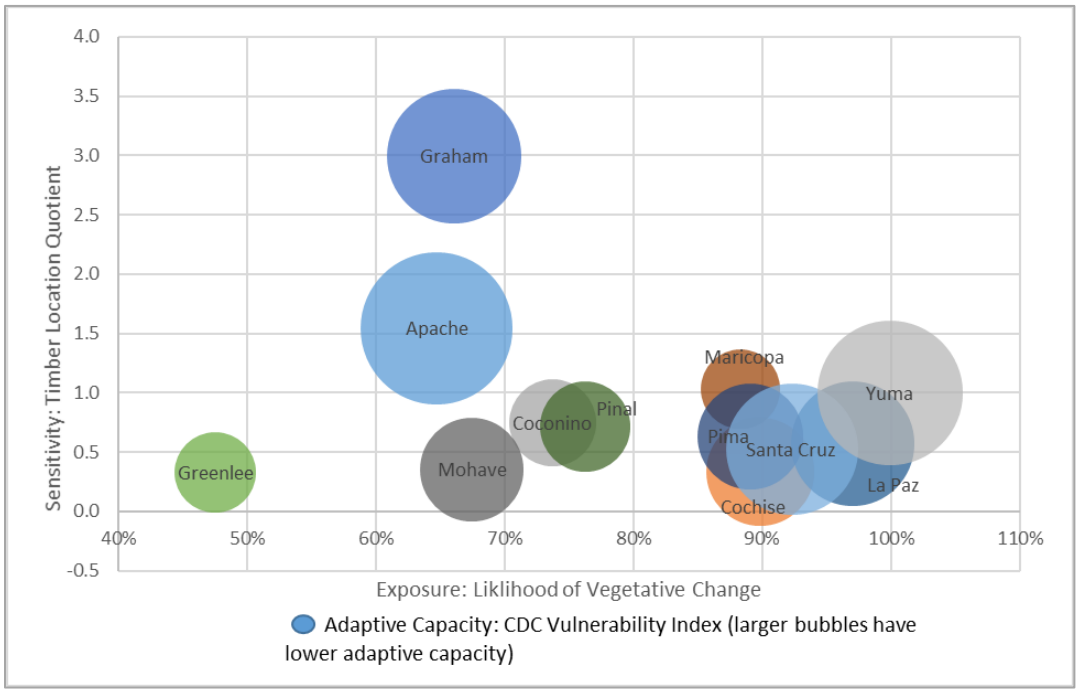


Figure 17. Timber exposure, sensitivity and adaptive capacity, all Arizona counties



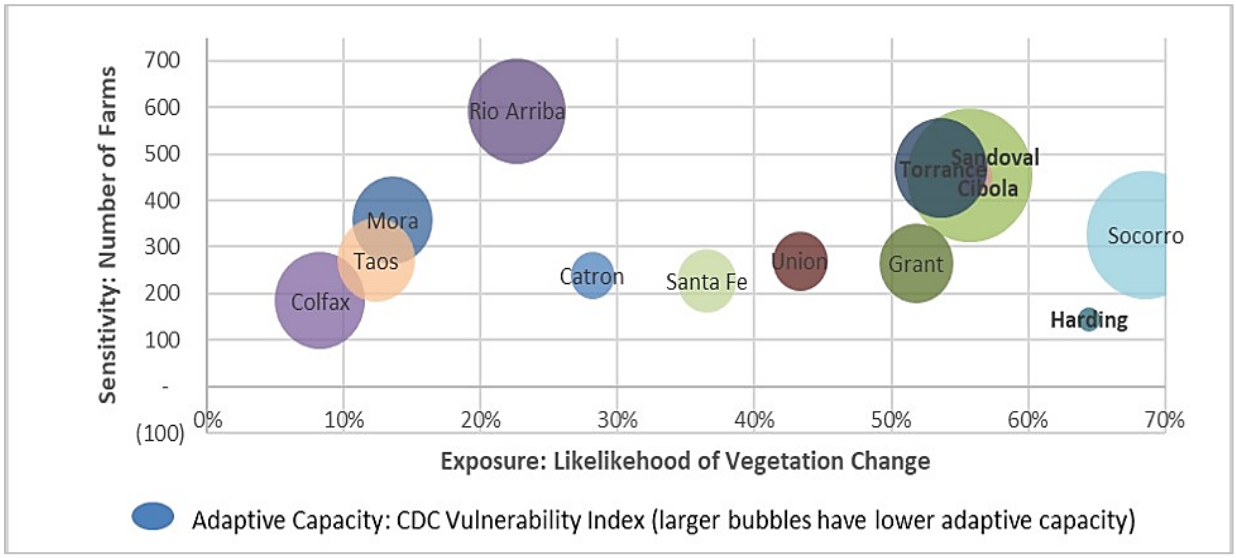
Note: Yavapai, Gila, and Navajo Counties are not represented to show detail of remaining counties.

Figure 18. Timber exposure, sensitivity, and adaptive capacity, by selected Arizona counties

Navajo County, Arizona, is the outlier in figure 17 with high values for all three indexes—notably a very high location quotient indicating a high concentration of timber sector jobs in the county—suggesting this county is vulnerable in regards to timber as an ecosystem service. Again, Yuma County has high values

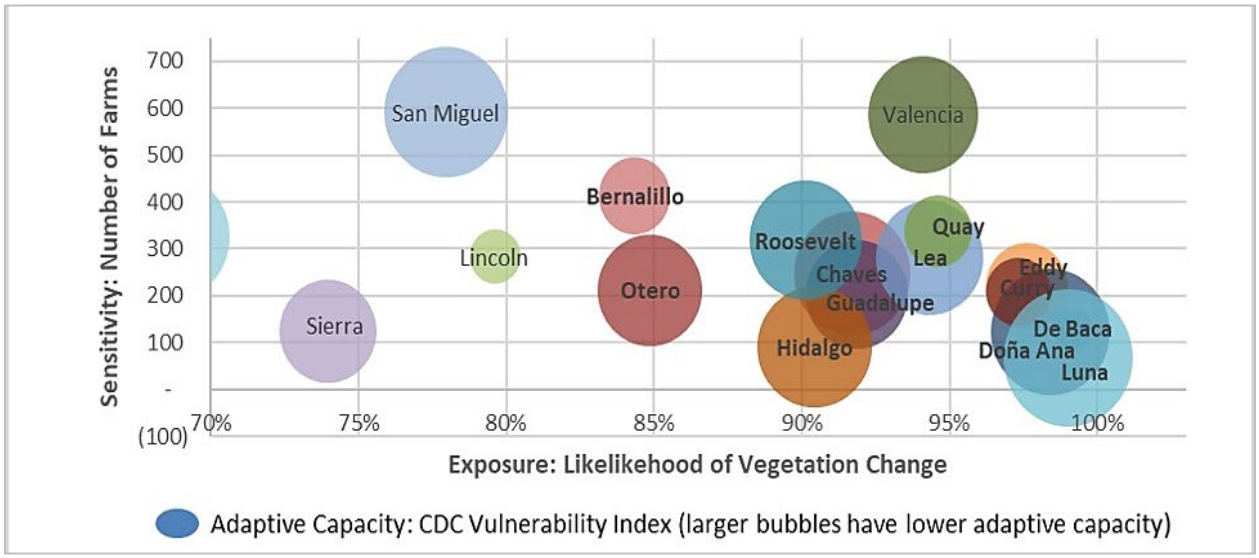
for exposure and low adaptive capacity, but a location quotient of 1, indicating average timber sector employment.

New Mexico



Note: McKinley and San Juan Counties are not represented to show detail of remaining counties. Figure 20 is a horizontal (x-axis) continuation of this figure.

Figure 19. Range exposure, sensitivity and adaptive capacity, New Mexico, by county with exposure below 70 percent



Note: McKinley and San Juan Counties are not represented to show detail of remaining counties. This figure is a horizontal (x-axis) continuation of figure 19.

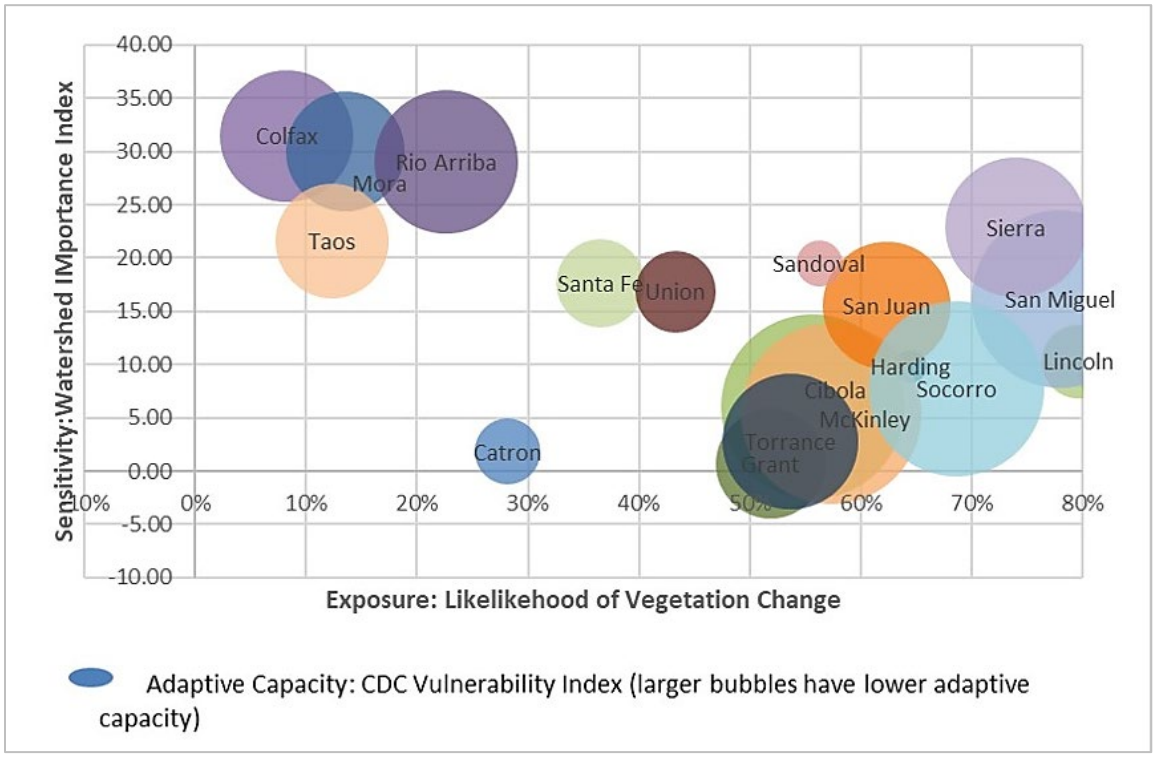
Figure 20. Range exposure, sensitivity and adaptive capacity, New Mexico, by county, with exposure greater than 70 percent

The presentation of a few New Mexico counties with very large numbers of livestock farms would skew the presentation of data. These counties, McKinley and San Juan Counties, with 1,934 and 1,685 livestock farms, respectively, fall near the average exposure levels. McKinley County, however, has adaptive

capacity index well below average, indicating it is more vulnerable. These two counties are not represented in figure 19 and figure 20.

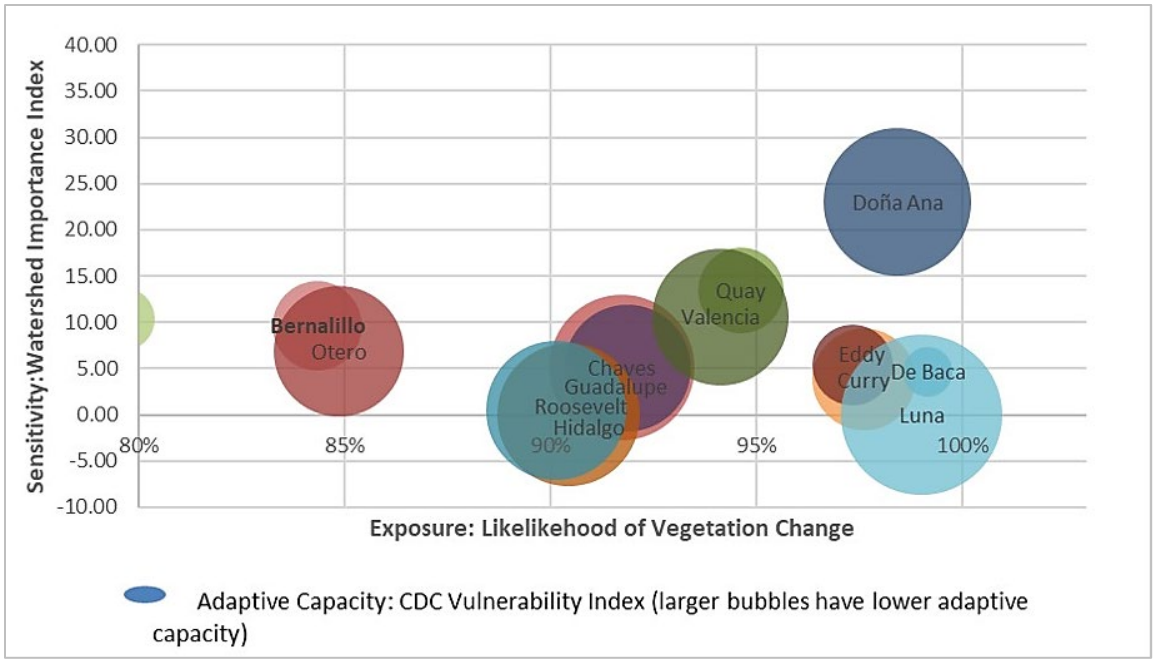
Luna County, with the lowest relative adaptive capacity, and the highest exposure, also has a more minimal number of livestock farms, suggesting the sensitivity to rangeland exposure is low (figure 20).

Lea County, New Mexico is not shown on figure 21 with its very high Watershed Importance Index. Although exposure is above average and adaptive capacity is about average. Dona Ana and Valencia counties are found to have high values for all three indexes placing these counties as among the most vulnerable (figure 22).



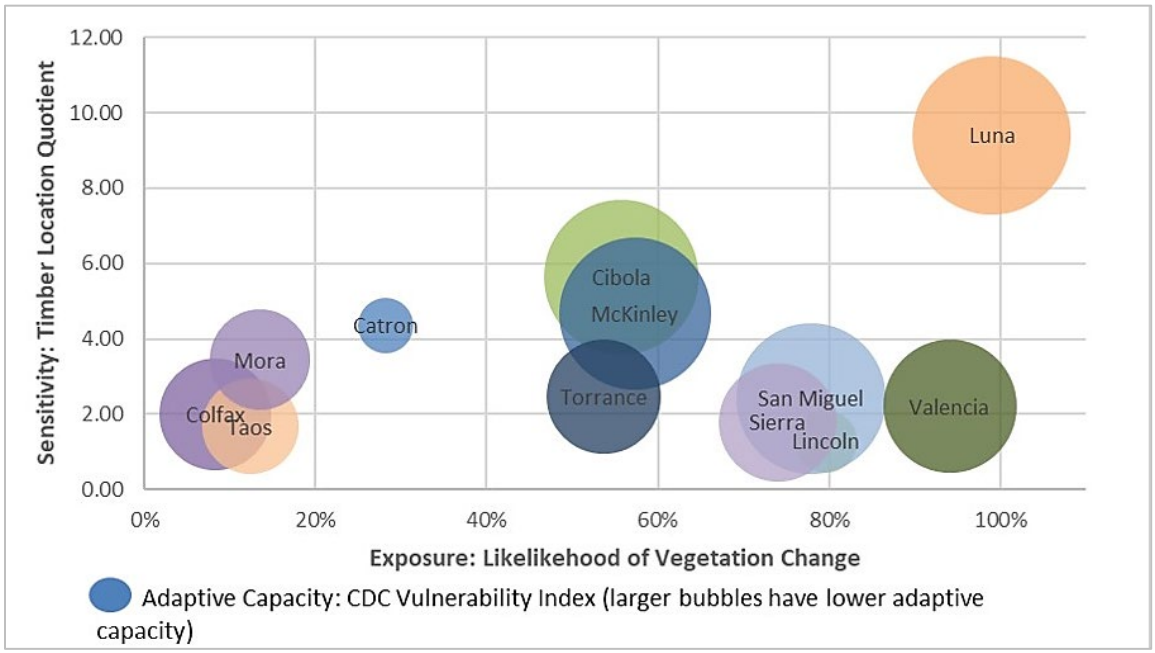
Note: Lea County is not represented to show detail of remaining counties. Figure 22 is a horizontal (x-axis) continuation of this figure.

Figure 21. Watershed exposure, sensitivity and adaptive capacity, New Mexico, by county with exposure less than 80 percent



Note: Lea County is not represented to show detail of remaining counties. Figure 22 is a horizontal (x-axis) continuation of figure 21.

Figure 22. Watershed exposure, sensitivity and adaptive capacity, New Mexico, by county with exposure greater than 80 percent



Note: All counties with timber location quotients below 1 are not shown.

Figure 23. Timber exposure, sensitivity, and adaptive capacity, by selected New Mexico counties

Luna County, New Mexico, is the outlier in figure 23 with high values for all three indexes—notably a very high location quotient indicating a high concentration of timber sector jobs in the county—suggesting this county is vulnerable in regards to timber as an ecosystem service. Cibola, Valencia, San

Miguel, and McKinley Counties also have high values for exposure and low adaptive capacity, and above average concentrations of timber sector employment.

Composite Exposure

The previous figures represented the three elements of this report with three different figures representing three ecosystem services. Looking at these or other ecosystem services separately may make sense for some planning and management activities. However, it may also be useful to get a broader view of the region across three ecosystem services. Figure 24 and figure 25 graph a composite index of sensitivity and exposure to all three ecosystem services—timber, water and range. The larger the index value the greater the sensitivity and exposure to ecological changes. This is plotted with the adaptive capacity index on the vertical axis. As with the previous figures, as the points move toward the upper right quadrant, the county increases in socioeconomic vulnerability and sensitivity to ecological changes. Navajo and Cochise Counties in Arizona and many counties in New Mexico, including San Miguel, Chaves, and Otero Counties, are in the upper right quadrant, suggesting they are highly vulnerable to changes in ecosystem services. Counties in the bottom right quadrant show high sensitivity and exposure, but also have higher adaptive capacity, suggesting, on average, households are more resilient to changing ecosystems. Maricopa County, Arizona, and Lincoln, Eddy, and Sandoval among other New Mexico counties fall in this lower right quadrant. Counties in the upper left quadrant show low adaptive capacity, but also lower sensitivity and exposure to climate-related ecological changes. Counties such as Apache, Yuma, and Santa Cruz Counties in Arizona, and Luna, Cibola, and McKinley Counties in New Mexico are in this upper left quadrant.

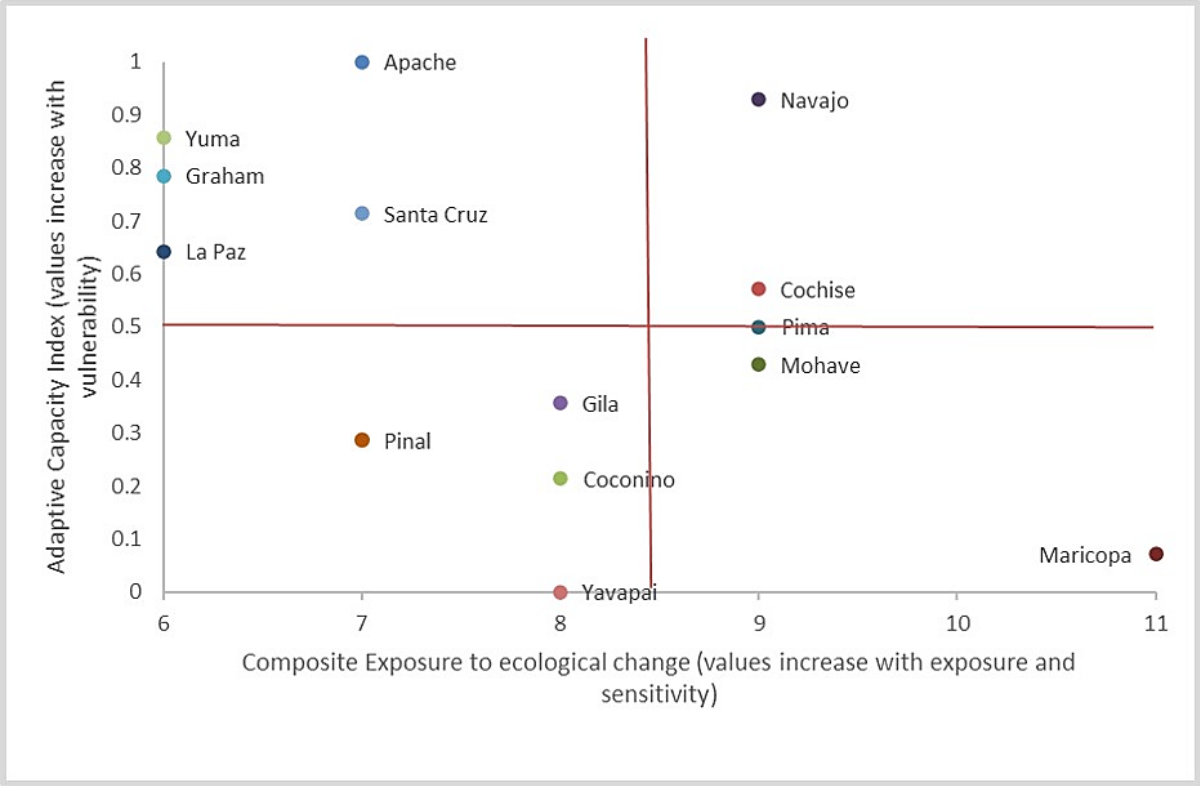


Figure 24. Composite exposure to ecological change, Arizona, by county

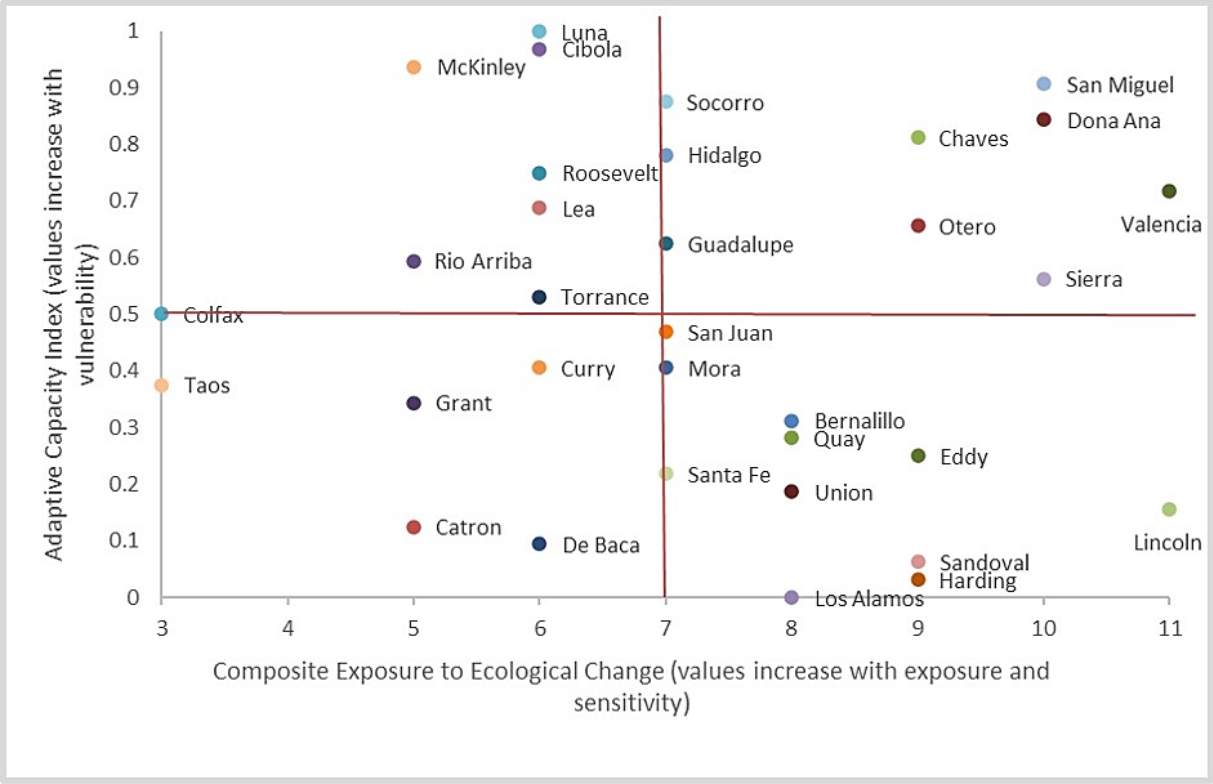


Figure 25. Composite exposure to ecological change, New Mexico, by county

Hand et al. (2016) discusses management implications of socioeconomic vulnerability to climate-related changes to National Forest System lands in the Southwestern Region. Their guide is not specific in nature and can be read by other land managers to understand how to support adaptation to climate-related changes that affect socioeconomic well-being.

References Cited

Alig, Ralph J.; Stone, Edward E.; White, Eric M. 2011. Land value changes and carbon sequestration as an ecosystem service in a climate-changed environment. In: Alig, Ralph J., ed. Effects of climate change on natural resources and communities: A compendium of briefing papers. Gen. Tech. Rep. PNW-GTR-837. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station.

Atencio, Ernest. 2004. Of land and culture: Environmental justice and public lands ranching in Northern New Mexico. Santa Fe, NM: Quivira Coalition and the Northern New Mexico Group of the Sierra Club. Available online at http://quiviracoalition.org/images/pdfs/723-Of_Land_and_Culture.pdf [Accessed April 5, 2016].

Bureau of Economic Analysis [BEA]. 2019. Outdoor Recreation Satellite Account, U.S. and Prototype for States, 2017. Release No.: BEA 19-45. Available online at https://www.bea.gov/news/2019/outdoor-recreation-satellite-account-us-and-prototype-states-2017 [Accessed October 30, 2020].

Baker, B.B.; Hanson, J.D.; Bourdon, R.M.; Eckert, J.B. 1993. The potential effects of climate change on ecosystem processes and cattle production on U.S. rangelands. Climatic Change. 25(2): 97–117.

Bigelow, D.P.; Borchers, A. 2017. Major Uses of Land in the United States, 2012. EIB-178, U.S. Department of Agriculture, Economic Research Service, 62 p.

Boyd, J.; Banzhaf, S. 2007. What are ecosystem services? The need for standardized environmental accounting units. Ecological Economics. 63(2-3): 616–626.

Brown, Joel; MacLeod, Neil. 2011. A site-based approach to delivering rangeland ecosystem services. The Rangeland Journal. 33(2): 99–108.

Center for Disease Control, Agency for Toxic Substances and Disease Registry [CDC]. 2018. CDC's Social Vulnerability Index (SVI). Available online at https://svi.cdc.gov/index.html [Accessed December 12, 2019].

Chambers, Jeanne C.; Pellant, Mike. 2008. Climate change impacts on northwestern and intermountain United States rangelands. Rangelands. 30(3): 29–33.

City of Phoenix. 2020. Water Department. https://www.phoenix.gov/waterservices/resourcesconservation/yourwater Accessed October 26, 2020.

Dale, Virginia H.; Joyce, Linda A.; McNulty, Steve; [et al.]. 2001. Climate change and forest disturbances. BioScience. 51(9): 723–734.

Dawson, J.; Scott, D.; McBoyle, G.; [et al.]. 2009. Climate change analogue analysis of ski tourism in northeastern USA. Climate Research. 39: 1–9.

Daily, Gretchen C. 1997. Introduction: What are ecosystem services? In: Daily, Gretchen, ed. Nature's services: Societal dependence on natural ecosystems. Washington, DC: Island Press.

Dillon, Gregory K. 2018. Wildfire Hazard Potential (WHP) for the conterminous United States (270-m GRIS), version 2018 classified. 2nd Edition. Fort Collins, CO: Forest Service Research Data Archive. Available online at https://doi.org/10.2737/RDS-2015-0046-2.

Fischer, A. Paige; Paveglio, Travis; Carroll, Matthew; [et al.]. 2013. Assessing social vulnerability to climate change in human communities near public forests and grasslands: A framework for resource managers and planners. Journal of Forestry. 111(5): 357–365.

Fire Modeling Institute. 2014. Wildfire hazard potential (WFP) for the conterminous United States (270-m GRID), v2014 classified. Missoula, MT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. Available online at http://www.firelab.org/document/classified-2014-whp-gis-data-and-maps [Accessed April 5, 2016].

Flannigan, Michael D.; Stocks, Brian J.; Wotton, B.M. 2000. Climate change and forest fires. Science of the Total Environment. 262(3): 221–229.

Forest Health Project. 2019a. Forest Insect and Disease Conditions in the Southwestern Region, 2018. Albuquerque, NM: U.S. Department of Agriculture, Forest Service, Southwestern Region, Forest Health PR-R3-16-18.

Forest Health Project. 2019b. National Insect and Disease Composite Risk Map, 2018 Update. Digital Data. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Forest Health Assessment and Applied Sciences Team.

Gutzler, D.S. 2013. Regional climatic considerations for borderlands sustainability. Ecosphere. 4(1): 7 p.

Gallopin, Gilberto C. 2006. Linkages between vulnerability, resilience, and adaptive capacity. Global Environmental Change. 16(3): 293–303.

Hand, Michael S.; Eichman, Henry; Triepke, F. Jack; Jaworski, Delilah. 2018. Socioeconomic vulnerability to ecological changes to national forests and grasslands in the Southwest. Gen. Tech. Rep. RMRS-GTR-383. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 100 p.

Hand, Michael S.; Jordan W. Smith; David L. Peterson; Nancy A. Brunswick; and Carol P. Brown. 2018b. Chapter 10: Effect of Climate Change on Outdoor Recreation. Gen. Tech. Rep. RMRS-GTR-375. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 316–338 p.

Havstad, Kris M.; Peters, Debra P.C.; Skaggs, Rhonda; [et al.]. 2007. Ecological services to and from rangelands of the United States. Ecological Economics. 64(2): 261–268.

IMpacts for PLANning (IMPLAN). 2016. Minnesota IMPLAN Group, Inc. Version 3.1.1001.13 Copyright 2013. www.implan.com

Intergovernmental Panel on Climate Change [IPCC]. 2007. Summary for policymakers. In: Parry, M.L.; Canziani, O.F.; Palutikof, J.P.; [et al.], eds. Climate change 2007: Impacts, adaptation and vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, UK: Cambridge University Press.

KANU Arizona Public Radio. 2020. Coal Mine's Closure Leaves Hopi, Navajo Homes Without Heat This Winter. January 10, 2020. Available at https://www.knau.org/post/coal-mine-s-closure-leaves-hopi-navajo-homes-without-heat-winter Downloaded on October 26, 2020.

Krist, F.J., Jr.; Ellenwood, J.R.; Woods, M.E.; [et al.]. 2014. 2013–2027 National Insect and Disease Forest Risk Assessment. FHTET-14-01. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Forest Health Technology Enterprise Team. 199 p.

Leung, Y–F.; Cheung, S-Y; Smith, J; [et al.]. 2019. Statistical report of state park operations: 2017–2018—Annual information exchange for the period July 1, 2017 through June 30, 2018. Raleigh, NC: North Carolina State University, Department of Parks, Recreation and Tourism Management.

Littell, J.S.; McKenzie, D.; Peterson, D.L.; [et al.]. 2009. Climate and wildfire area burned in the western U.S. ecoprovinces, 1916–2003. Ecological Applications. 19(4): 1003–1021.

Luers, A.L. 2005. The surface of vulnerability: An analytical framework for examining environmental change. Global Environmental Change. 15(3): 214–223.

Moser, W. Keith; Barnard, Edward L.; Billings, Ronald F.; [et al.]. 2009. Impacts of nonnative invasive species on US forests and recommendations for policy and management. Journal of Forestry. 107(6): 320–327.

McMichael, Anthony; Scholes, Robert; Hefny, Manal; [et al.]. 2005. Chapter 3: Linking ecosystem services and human well-being. In: Capistrano, D.; Samper, C.K.; Lee, M.J.; [et al.], eds. Ecosystems and human well-being: Multiscale assessments, Volume 4. Washington, DC: Island Press.

Murphy, Daniel J.; Wyborn, Carina; Yung, Laurie; [et al.]. 2015. Key concepts and methods in vulnerability and adaptive capacity. Gen. Tech. Rep. RMRS-GTR-328. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 24 p.

U.S. Department of the Interior, National Park Service [NPS]. 2019a. National Park Service visitor use statistics, park reports, 5-year visitation summary. https://irma.nps.gov/STATS/. [Accessed August 5, 2020].

U.S. Department of the Interior, National Park Service [NPS]. 2019b. 7.5 Million People Visited Lake Mead National Recreation Area in 2018. Lake Mead National Recreation Area News Release. Release No.: 2019-06. Boulder City, NV: U.S. Department of the Interior, National Park Service. https://www.nps.gov/lake/learn/news/2018-visitation.htm [Accessed October 29, 2020].

Nelson, M.D.; Vissage, J. 2007. Mapping forest inventory and analysis forest land use: Timberland, reserved forest land, and other forest land. In: McRoberts, R.E., Reams, G.A., Van Deusen, P.C., McWilliams, W.H., eds. Proceedings of the seventh annual forest inventory and analysis symposium; 2005 October 3–6. Gen. Tech. Rep. WO-77. Washington, DC: U.S. Department of Agriculture, Forest Service.

Outdoor Industry Association [OIA]. 2017. Outdoor Recreation Economy State Reports. Available at https://outdoorindustry.org/state/arizona/. Downloaded on Feb 25, 2020.

Overpeck, Jonathan; Garfin, Gregg; Jardine, Angela; [et al.]. 2013. Chapter 1: Summary for decision makers. In: Garfin, G.; Jardine, A.; Merideth, R.; [et al.], eds. Assessment of climate change in the Southwest United States. Washington, DC: Island Press.

Raish, Carol. 2000. Environmentalism, the Forest Service, and the Hispano communities of northern New Mexico. Society and Natural Resources. 13: 489–508.

Reeves, M.C.; Bagne, K.E. 2016. Vulnerability of cattle production to climate change on U.S. rangelands. Gen. Tech. Rep. RMRS-GTR-343. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 39 p.

Ritten, J.P.; Frasier, W.M.; Bastian, C.T.; [et al.]. 2010. Optimal rangeland stocking decisions under stochastic and climate-impacted weather. American Journal of Agricultural Economics. 92(4): 1242–1255.

Rocca, M.E., Brown, P.M., MacDonald, L.H., Carrico, C.M., 2014. Climate change impacts on fire regimes and key ecosystem services in Rocky Mountain forests. Forest Ecol. Manag. 327, 290-305.

Sorenson, Colin B.; Hayes, Steven W.; Morgan, Todd A.; Simmons, Eric A.; Scudder, Micah G.; McIver, Chelsea P.; Thompson, Mike T. 2016. The Four Corners timber harvest and forest products industry, 2012. Resour. Bull. RMRS-RB-21. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 62 p.

Triepke, F. J., E. H. Muldavin, and M. M. Wahlberg. 2019. Using climate projections to assess ecosystem vulnerability at scales relevant to managers. Ecosphere 10(9):e02854. 10.1002/ecs2.2854

Torell, L. Allen; Rimbey, Neil R.; Ramírez, Octavio A.; [et al.]. 2005. Income earning potential versus consumptive amenities in determining ranchland values. Journal of Agricultural and Resource Economics. 39(3): 537–560.

Tkacz, Borys; Moody, Ben; Castillo, Jaime V.; [et al.]. 2008. Forest health conditions in North America. Environmental Pollution. 155(3): 409–425.

U.S. Census Bureau, 2018. American Community Survey 5-Year Estimates Detailed Tables. http://data.census.gov [Accessed November 11, 2019].

U.S. Geological Survey [USGS]. 2012. Gap Analysis Program, Protected Areas Database of the United States version 1.3. Economic Profile System – Human Dimensions Toolkit. http://gapanalysis.usgs.gov/padus/data/metadata/

USDA Forest Service. 2016a. Future of America's Forests and Rangelands: Update to the 2010 Resources Planning Act Assessment. Gen. Tech. Report WO-GTR-94. Washington, DC. Department of Agriculture, Forest Service, Research and Development. 250 p.

USDA Forest Service. 2016b. Santa Fe National Forest Plan Final Assessment Report Volume II. Socioeconomic Resources. Albuquerque, NM: U.S. Department of Agriculture, Forest Service, Southwestern Region. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd506346.pdf [Accessed October 27, 2020].

USDA Forest Service. 2017. Tonto National Forest Plan Final Assessment Report Volume II. Social and Economic Conditions, Trends and Risks to Sustainability Volume II. Phoenix, AZ: U.S. Department of Agriculture, Forest Service, Southwestern Region. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd604581.pdf [Accessed October 27, 2020].

USDA Forest Service. 2018. Forest Service cut and sold reports for all convertible products by region, State, and National Forest, 1980 to 2018. Washington, DC: U.S. Department of Agriculture, Forest Service. via Headwaters Economics https://headwaterseconomics.org/public-lands/county-payments/commercial-activities-national-forests/ [Accessed November 22, 2019].

USDA Forest Service. 2019. Natural Resource manager database. Corporate database accessed December 16, 2019. Washington Office, Washington DC.

USDA Forest Service. 2020. National visitor use monitoring program. Washington, DC: U.S. Department of Agriculture, Forest Service, Natural Resource Manager. https://www.fs.usda.gov/about-agency/nvum/ [Accessed October 28, 2020].

USDA Forest Service. [n.d.]. Jobs and Income Economic Contributes in 2016 At A glance EMC. Washington DC: U.S. Department of Agriculture, Forest Service, Ecosystem Management Coordination. https://www.fs.fed.us/emc/economics/at-a-glance/jobs-income.shtml [Accessed October 28, 2020].

USDA National Agricultural Statistics Service [NASS]. 2019. 2017 Census of Agriculture. https://quickstats.nass.usda.gov/ [Accessed October 11, 2019].

U.S. Department of the Interior, Bureau of Land management [BLM]. 2019. Personal communication with Rem Hawes, Office of Communication, BLM Arizona State Office and Terry Heslin, Recreation, Travel Management, National Trails Lead, BLM New Mexico State Office.

van Mantgem, P.J.; Stephenson, N.L.; Byrne, J.C.; [et al.]. 2009. Widespread increase of tree mortality rates in the western United States. Science. 323(5913): 521–524.

Weidner, E.; Todd, A. 2011. From the forest to the faucet: Drinking water and forests in the U.S. Unpublished report on file with U.S. Department of Agriculture, Forest Service, Ecosystem Services and Markets, Washington, DC. Available online at http://www.fs.fed.us/ecosystemservices/FS_Efforts/forests2faucets.shtml.

Westerling, A.L.; Hidalgo, H.G.; Cayan, D.R.; [et al.]. 2006. Warming and earlier spring increase western U.S. forest wildfire activity. Science. 313(5789): 940–943.

Williams, A.P.; Allen, C.D.; Millar, C.I.; [et al.]. 2010. Forest responses to increasing aridity and warmth in the southwestern United States. PNAS. 107(50): 21289–21294.

Wobus, C.; Small, E.E.; Hosterman, H.; Mills, D.; Stein, J.; Rissing, M.; Jones, R.; Duckworth, M.; Hall, R.; Kolian, M.; Creason, J.; Martinich, J.; [et al.]. 2017. Projected climate change impacts on skiing and snowmobiling: A case study of the United States. Global Environmental Change, 45: 1–14.

Yohe, Gary; Tol, Richard S.J. 2002. Indicators for social and economic coping capacity—Moving toward a working definition of adaptive capacity. Global Environmental Change. 12(1): 25–40.

Appendix A. Data Dictionary

Climate-Related Changes and Disturbances to Ecosystem Services in the Southwest

Likelihood of Vegetative Change

Geographic level: County and census Tract

Source: Calculation using Triepke, F.J., E.H. Muldavin, and M.M. Wahlberg. 2019. Using climate projections to assess ecosystem vulnerability at scales relevant to managers. Ecosphere 10(9):e02854. 10.1002/ecs2.2854

Data Description: Vulnerability in the Triepke et al. (2019) study is defined as how likely the predominant vegetation is to change under future climate. Vulnerability to climate change was categorized as low, moderate, high, and very high likelihood of change, according to the difference between historic and future climate. The original dataset segments all lands into ecological response units (ERUs)—a classification of lands into 26 ecosystem types (for example, spruce-fir forest, ponderosa pine forest, juniper grass, semi-desert grassland, sagebush shrubland) to provide a fine subregional landscape analysis. Each ERU is assigned a vulnerability classification and an uncertainty classification based on the agreement of their modeling projections.

Calculation: The polygon geospatial layer was summarized as the percentage of each geography (e.g., county) with high or very high likelihood of vegetative change when uncertainty is low or moderate.

Wildfire Hazard Potential

Geographic level: County

Source: Calculation using Dillon, Gregory K. 2018. Wildfire Hazard Potential (WHP) for the conterminous United States (270-m GRIS), version 2018 classified. 2nd Edition. Fort Collins, CO: Forest Service Research Data Archive. https://doi.org/10.2737/RDS-2015-0046-2.

Data Description: A wildfire hazard potential (WHP) geospatial product was developed by the Forest Service's Rocky Mountain Research Station, Fire Modeling Institute to help inform evaluations of wildfire risk or prioritization of fuels management across large spatial scales. That is, the WHP depicts the relative potential—as five classes of very low, low, moderate, high, very high—for wildfire that would be difficult for suppression resources to contain. High-hazard areas identified by WHP are characterized by relatively high likelihood of wildfire occurring and burning at high intensities that tend to be damaging for ecosystem services and functions (Fire Modeling Institute 2014).

Calculation: The raster geospatial product was used to calculate the percentage of each county (census tract) with a high or very high wildfire hazard potential classification.

Percent Treed

Geographic level: County

Source: Forest Health Protection. 2019. National Insect and Disease Composite Risk Map, 2018 Update. Digital Data. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Forest Health Assessment and Applied Sciences Team.

Data Description: Percentage of county treed. Treed is defined as any area with measurable tree presence and does not need to meet a standardized definition of forest (e.g., 10 percent canopy cover).

Calculation: County-level summary of raster dataset downloaded from https://www.fs.fed.us/foresthealth/applied-sciences/mapping-reporting/national-risk-maps.shtml.

Percent Treed at Risk of Insect and Disease

Geographic level: County

Source: Forest Health Protection. 2019. National Insect and Disease Composite Risk Map, 2018 Update. Digital Data. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Forest Health Assessment and Applied Sciences Team.

Data Description: This dataset presents 'at risk' as the expectation that 25 percent or more of the live standing trees greater than 1 inch in diameter will be lost over a 15-year time frame due to mortality from insects and disease. The 2018 update to the 2012 NIDRM adjusts for areas no longer at risk for significant damage due to areas which have experienced disturbances. The 2018 update shows a reduction in areas at risk, due to disturbances that have occurred, but does not account for increases in hazards due to tree growth or new pests.

Also see Percent Treed .

Calculation: County-level summary of raster dataset downloaded from https://www.fs.fed.us/foresthealth/applied-sciences/mapping-reporting/national-risk-maps.shtml

Intersecting Stressors

Geographic level: County

Source: See Likelihood of Vegetative Change, Wildfire Hazard Potential, and Percent Treed at Risk of Insect and Disease .

Data Description: The likelihood of vegetative changes are combined with the data on disturbance risk (fire, insect and disease mortality) to provide insight into areas where multiple stressors overlap and may further threaten the provision of ecosystem services.

Calculation: The risk of multiple stressors is calculated as an expected probability and not a spatial mapping exercise. That is, the area share (county or census tract) is interpreted as a probability that a given acre is in the high or very high category for a given stressor. The probability of an acre being in the high or very high category for two of the three stressors is the pairwise product of the three area shares:

> Probability (any 2 stressors) = (likelihood of vegetative change * percent treed at risk of Insect and Disease) + (likelihood of vegetative change * Wildfire Hazard Potential) + (percent treed at risk of Insect and Disease * Wildfire Hazard Potential).

Dependence on and Exposure of Ecosystem Services

Livestock Sectors as a Percentage of Total Employment

Geographic level: State and county

Source: Calculation based on IMPLAN 2016

Data Description: The livestock sector is defined as IMPLAN sectors 11 and 14—'beef cattle ranching and farming, including feedlots and dual-purpose ranching' and 'farming and animal production, except cattle and poultry and eggs.' IMPLAN Sector 14 is included to capture non-cattle livestock that require forage, such as sheep and goats. The use of IMPLAN data provides a single comprehensive economic

dataset for county-level data. IMPLAN estimates of employment include self-employed persons as is common in the agricultural sector.

Calculation: The IMPLAN dataset was used to calculate the percentage of county employment in sectors 11 and 14.

Livestock sector employment location quotient

Geographic level: County

Source: Calculation based on IMPLAN 2016

Data Description: A location quotient (LQ) is a statistic that measures a region's (in this case county) industrial specialization relative to a larger geographic unit (in this case the state). The LQ is computed as an industry's share of the total for some economic statistic (income, employment, etc.) divided by the industry's share of the state total for the same statistic. For example, an LQ of 1.0 in livestock means that the county and the state are equally specialized in livestock; while an LQ of 1.8 means that the county has a higher concentration in livestock-related employment than the state.

Also see Livestock Sectors as a Percentage of Total Employment.

Calculation: The IMPLAN (2016) dataset was used to calculate the location quotient. This is calculated as the ratio of livestock sector employment as a percentage of total employment in the county to livestock sector employment as a percentage of total employment in the state.

Livestock Farms

Geographic level: County

Source: USDA National Agricultural Statistics Service, 2017 Census of Agriculture. Complete data available at www.nass.usda.gov/AgCensus.

Data Description: The North American Industry Classification System (NAICS) classifies economic activities. For the 2017 census, all agricultural production establishments (farms, ranches, nurseries, greenhouses, etc.) were classified by type of activity or activities using the NAICS code based on data collected from Census of Agriculture. Livestock farms was defined here as farming operations with NAICS classifications 112111 and 1124—beef cattle ranching and farming, and sheep and goat farming. Cattle feedlots and dairy operations are under separate classification categories. Farms with only 100 acres or more of pastureland were classified as "All other animal producing farming (11299)." That is, they do not have specialized buildings, equipment types, or animal production that would otherwise classify the operations into these more specialized categories.

The number of livestock farms are used as a proxy to represent the use of forage as an ecosystem service.

Calculation: The estimates of the number of farms available from https://quickstats.nass.usda.gov/.

Livestock Farm Exposure

Geographic level: County

Source: Based on USDA National Agricultural Statistics Service, 2017 Census of Agriculture. Complete data available at www.nass.usda.gov/AgCensus

Triepke, F. J., E. H. Muldavin, and M. M. Wahlberg. 2019. Using climate projections to assess ecosystem vulnerability at scales relevant to managers. Ecosphere 10(9):e02854. 10.1002/ecs2.2854

Data Description: The exposure of forage for livestock to climate-related forest and grassland changes relies on identifying areas that are important for livestock grazing and most at risk of vegetative change. Areas important for livestock grazing is defined as the number of cattle, sheep and goat farms (see Livestock Farms). Vegetative risk is defined as the share of area that is rated at high or very high risk of vegetative change (see Likelihood of Vegetative Change).

Calculation: Grazing exposure to vegetative risk is calculated as the number of livestock farms in a geographic area multiplied by the share of area at high or very high risk of vegetative change.

Timber Sectors as a Percentage of Total Employment

Geographic level: State and county

Source: Calculation based on IMPLAN 2016

Data Description: IMPLAN (2016) sectors 15, 16, 134-149 are used to represent timber harvesting and processing sectors.

Calculation: The IMPLAN (2016) dataset was used to calculate the percentage of county employment in sectors 15, 16, 134-149.

Timber Sector Employment Location Quotient

Geographic level: County

Source: Calculation based on IMPLAN 2016

Data Description: A location quotient (LQ) is a statistic that measures a region's (in this case county) industrial specialization relative to a larger geographic unit (in this case the state). An LQ is computed as an industry's share of a county's total for some economic statistic (income, employment, etc.) divided by the industry's share of the state total for the same statistic. For example, an LQ of 1.0 in timber means that the county and the state are equally specialized in timber; while an LQ of 1.8 means that the county has a higher concentration in timber related employment than the state.

Also see Timber Sectors as a Percentage of Total Employment.

Calculation: The IMPLAN (2016) dataset was used to calculate the location quotient. This is calculated as the ratio of timber harvesting and processing sector employment as a percentage of total employment in the county to timber harvesting and processing sector employment as a percentage of total employment in the state.

Timber Vegetation Type (ERU)

Geographic level: County and census tract

Source: Calculation based on Triepke, F. J., E. H. Muldavin, and M. M. Wahlberg. 2019. Using climate projections to assess ecosystem vulnerability at scales relevant to managers. Ecosphere 10(9):e02854. 10.1002/ecs2.2854

Data Description: Spruce-fir forest (ERU code SFF), mixed conifer with aspen (ERU code MCW), mixed conifer–frequent fire (ERU code MCD), and ponderosa pine forest (ERU code PPF) ERUs are

identified as vegetation types that support species appropriate for timber production. Also see Likelihood of Vegetative Change.

Calculation: Percentage of geographic area covered by timber vegetation type ERUs.

Timber Vegetation Exposure

Geographic level: County and census tract

Source: Calculation based on Triepke, F. J., E. H. Muldavin, and M. M. Wahlberg. 2019. Using climate projections to assess ecosystem vulnerability at scales relevant to managers. Ecosphere 10(9):e02854. 10.1002/ecs2.2854

Data Description: See Timber Vegetation Type and Likelihood of Vegetative Change**.** Summarizing the likelihood of vegetative change for these ERUs provides an indication of exposure to climate-related vegetative change for areas with vegetation types suitable for timber production.

Calculation: This is calculated as the percentage of timber vegetation type ERUs area with high or very high likelihood of vegetative change and low to moderate uncertainty.

Percentage of Households Heating with Wood

Geographic level: County

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Data Description: The American Community Survey asks questions about home heating fuel to create statistics about home energy use. These data are used in government programs that analyze community air quality and energy needs. Federal agencies use these statistics to forecast future energy demand, analyze the fuels available to community residents, and plan and fund programs that help low-income residents afford to heat their homes. The question as it appeared on the census questionnaire follows:

> Which FUEL is used MOST for heating this house, apartment, or mobile home?

Calculation: Downloaded from American Fact Finder, now https://data.census.gov/

Watershed Importance

Geographic level: County and census tract

Source: Calculation based on

Weidner, E.; Todd, A. 2011. From the forest to the faucet: Drinking water and forests in the U.S. Unpublished report on file with U.S. Department of Agriculture, Forest Service, Ecosystem Services and Markets, Washington, DC. http://www.fs.fed.us/ecosystemservices/FS_Efforts/forests2faucets.shtml.

Data Description: The importance of watersheds for municipal surface drinking water is summarized by using Forests-to-Faucets data from Weidner and Todd (2011). Importance of surface water sources for municipal drinking water is measured by using the 'IMP' index field in the Forests-to-Faucets data. The value of IMP for each 12-digit HUC is a standardized index value between 0 and 100 that summarizes relative mean annual water supply, the flow of water (e.g., from upstream to downstream watersheds), and water demand (i.e., of the municipality where water is eventually consumed).

Calculation: The 12-digit hydrologic unit code (HUC) watershed polygons are joined to county and census tract boundaries. The 'IMP' variable is summarized as an area weighted average for each HUC that intersects a county (Census tract) to arrive at a county-level (census tract-level) index average.

Watershed Importance Exposure

Geographic level: County and census tract

Source: Calculation based on

Weidner, E.; Todd, A. 2011. From the forest to the faucet: Drinking water and forests in the U.S. Unpublished report on file with U.S. Department of Agriculture, Forest Service, Ecosystem Services and Markets, Washington, DC. http://www.fs.fed.us/ecosystemservices/FS_Efforts/forests2faucets.shtml

Triepke, F. J., E. H. Muldavin, and M. M. Wahlberg. 2019. Using climate projections to assess ecosystem vulnerability at scales relevant to managers. Ecosphere 10(9):e02854. 10.1002/ecs2.2854

Data Description: The exposure of watersheds for municipal surface drinking water to climate-related vegetation changes relies on identifying areas that are important for surface water and most at risk of vegetative change. Areas important for surface water is defined using the index developed in the Forests-to-Faucets data (see Watershed Importance). Vegetative risk is defined as the share of area that is rated at high or very high risk of vegetative change (see Likelihood of Vegetative Change). Larger values represent greater exposure of important watersheds to the likelihood of climate change-induced vegetation change.

Calculation: Exposure of watersheds within each county (census tract) to vegetative risk is calculated by multiplying the importance for surface drinking water index by the share of area in each HUC that is at high or very high likelihood of vegetative change. Surface drinking water exposure for each county (census tract) is calculated as the acre-weighted average of watershed-level exposure for all HUCs that intersect the relevant geographic area.

Likelihood of Vegetative Change Quartile

Geographic level: County

Data Description: See Likelihood of Vegetative Change. A value of 1 indicates the lowest exposure quartile, while a value of 4 indicates highest exposure.

Calculation: The ranking-based index uses the county (census tract) observations ranked from the lowest exposure to the highest exposure. Each observation is then assigned to a quartile category (1–4) based on the ranking.

Intersecting Stressors Quartile

Geographic level: County

Data Description: See Intersecting Stressors.

Calculation: The ranking-based index uses the county (census tract) observations ranked from the lowest exposure to the highest exposure. Each observation is then assigned to a quartile category (1–4) based on the ranking. A value of 1 indicates the lowest exposure quartile, while a value of 4 indicates highest exposure.

Watershed Exposure Quartile

Geographic level: County

Data Description: See Watershed Importance Exposure.

Calculation: The ranking-based index uses the county (census tract) observations ranked from the lowest exposure to the highest exposure. Each observation is then assigned to a quartile category (1–4) based on

the ranking. A value of 1 indicates the lowest exposure quartile, while a value of 4 indicates highest exposure.

Livestock Farm Exposure Quartile

Geographic level: County

Data Description: See Livestock Farm Exposure.

Calculation: The ranking-based index uses the county observations ranked from the lowest exposure to the highest exposure. Each observation is then assigned to a quartile category (1–4) based on the ranking. A value of 1 indicates the lowest exposure quartile, while a value of 4 indicates highest exposure.

Timber Vegetation Exposure Quartile

Geographic level: County

Data Description: See Timber Vegetation Exposure.

Calculation: The ranking-based index uses the county (census tract) observations ranked from the lowest exposure to the highest exposure. Each observation is then assigned to a quartile category (1–4) based on the ranking. A value of 1 indicates the lowest exposure quartile, while a value of 4 indicates highest exposure.

Total Exposure Sum

Geographic level: County

Data Description: See Likelihood of Vegetative Change Quartile, Intersecting Stressors Quartile, Watershed Exposure Quartile, Livestock Farm Exposure Quartile, and Timber Vegetation Exposure Quartile. Higher numbers for the total exposure rating indicate greater exposure to climate-related ecological changes.

Calculation: The quartile index is constructed by calculating the sum of the quartile scores for each of the five (four) county-level (census tract-level) indicators.

Adaptive Capacity

Adaptability mean index (Hand et al.)

Geographic level: County

Source: Hand, Michael S.; Eichman, Henry; Triepke, F. Jack; Jaworski, Delilah. 2018. Socioeconomic vulnerability to ecological changes to national forests and grasslands in the Southwest. Gen. Tech. Rep. RMRS-GTR-383. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 100 p.

Data Description: Household socioeconomic conditions may play a role in the resilience of households to adapt to ecological and economic changes. Hand et al. (2018) developed a county-level index to summarize household socioeconomic conditions that may be related to household adaptive capacity. Their index, using publicly available data from U.S. Census, represents the average household within a county and can be used to indicate where there may be a greater or lesser concentration of households that would have difficulty adapting to changing ecological conditions. The Adaptive Capacity indexes values allow comparison across counties within each state to enable mapping and analysis of vulnerability relative to other counties. Higher values indicate greater adaptive capacity.

Calculation: Available directly from Hand et al. (2018). The mean index creates a standardized value for each indicator based on the value of each observation relative to the sample average. Available in Hand et al. (2018) report.

Adaptability Minimum Index (Hand et al.)

Geographic level: County

Source: Hand, Michael S.; Eichman, Henry; Triepke, F. Jack; Jaworski, Delilah. 2018. Socioeconomic vulnerability to ecological changes to national forests and grasslands in the Southwest. Gen. Tech. Rep. RMRS-GTR-383. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 100 p.

Data Description: Household socioeconomic conditions may play a role in the resilience of households to adapt to ecological and economic changes. Hand et al. (2018) developed a county-level index to summarize household socioeconomic conditions that may be related to household adaptive capacity. Their index represents the average household within a county and can be used to indicate where there may be a greater or lesser concentration of households that would have difficulty adapting to changing ecological conditions. The Adaptive Capacity indexes values allow comparison across counties within each state to enable mapping and analysis of vulnerability relative to other counties. Higher values indicate greater adaptive capacity.

Calculation: Available directly from Hand et al. (2018). The relative-to-minimum index is a standardized scale ranging from zero to one that summarizes each indicator based on the value of each observation relative to the minimum sample value (or maximum sample value for indicators where higher values indicate worse socioeconomic outcomes, such as poverty rates).

Adaptability Quintile Rank Index (Hand et al.)

Geographic level: County

Source: Hand, Michael S.; Eichman, Henry; Triepke, F. Jack; Jaworski, Delilah. 2018. Socioeconomic vulnerability to ecological changes to national forests and grasslands in the Southwest. Gen. Tech. Rep. RMRS-GTR-383. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 100 p.

Data Description: Household socioeconomic conditions may play a role in the resilience of households to adapt to ecological and economic changes. Hand et al. (2018) developed a county-level index to summarize household socioeconomic conditions that may be related to household adaptive capacity. Their index represents the average household within a county and can be used to indicate where there may be a greater or lesser concentration of households that would have difficulty adapting to changing ecological conditions. The Adaptive Capacity indexes values allow comparison across counties within each state to enable mapping and analysis of vulnerability relative to other counties. Higher values indicate greater adaptive capacity (lower vulnerability).

Calculation: Available directly from Hand et al. (2018). The ranking-based index uses the county observations of each indicator are ranked from the worst-case outcome to the best-case outcome. Each observation is then assigned to a quintile category (1–5) based on the ranking. The quintile index is then constructed by calculating the sum of the quintile scores for each indicator.

Social Vulnerability Index Rank

Geographic level: County and Census tract

Source: Center for Disease Control (CDC) Agency for Toxic Substances and Disease Registry (2018). CDC's Social Vulnerability Index (SVI). Available https://svi.cdc.gov/index.html Accessed December 12, 2019.

Data Description: The CDC SVI was created to provide spatially specific socioeconomic information to help public officials and local planners better prepare communities to respond to emergency events such as severe weather, floods, disease outbreaks, or chemical exposure. The SVI ranks census tracts and counties within each state to enable mapping and analysis of vulnerability relative to other census tracts or counties within individual states. Ranks are based on percentiles. Percentile ranking values range from 0 to 1, with higher values indicating greater vulnerability (lower adaptive capacity).

Calculation: Available directly from CDC (2018) at https://svi.cdc.gov/index.html.

Appendix B. Data Summaries

Arizona County

County	County ID	Likelihood of Vegetative Change	Wildfire Hazard Potential	Percent Treed	Percent Treed At Risk	Intersecting Stressors	Livestock as a Percentage of Total Employment	Livestock Location Quotient	Livestock Farms	Livestock Farm Exposure	Timber as a Percentage of Total Employment	Timber Location Quotient	Timber Vegetation Type (ERU)	Timber Vegetation Exposure	Households Heating with Wood	Watershed Importance	Watershed Importance Exposure	Likelihood of Vegetative Change Quartile	Intersecting Stressors Quartile	Watershed Exposure Quartile	Livestock Farm Exposure Quartile	Timber Vegetation Exposure Quartile	Total Exposure Sum	Social Vulnerability Index Rank
Arizona			19%				0.2%				0.2%													
Apache	4001	65%	11%	52%	12%	0.16	7.2%	40.0	3,961	2,563	0.3%	1.5	17%	100%	62%	6.8	1.9	1	3	1	4	4	13	1.00
Cochise	4003	90%	9%	29%	1%	0.09	0.2%	1.1	426	383	0.1%	0.3	1%	100%	3%	0.9	0.7	4	2	1	4	4	15	0.57
Coconino	4005	74%	27%	46%	7%	0.27	1.3%	7.0	1,604	1,183	0.1%	0.7	19%	99%	17%	10.3	5.7	2	4	2	4	4	16	0.21
Gila	4007	36%	77%	71%	0%	0.28	0.3%	1.4	188	67	0.5%	3.1	3%	96%	13%	44.8	15.2	1	4	4	1	4	14	0.36
Graham	4009	66%	36%	40%	1%	0.25	0.5%	2.6	232	153	0.5%	3.0	3%	96%	5%	6.5	3.2	2	4	1	3	3	13	0.79
Greenlee	4011	48%	43%	66%	3%	0.23	0.5%	2.9	80	38	0.1%	0.3	15%	95%	4%	11.8	3.4	1	4	2	1	3	11	0.14
La Paz	4012	97%	1%	1%	0%	0.01	0.1%	0.5	13	13	0.1%	0.6	0%	91%	3%	13.4	13.1	4	1	4	1	3	13	0.64
Maricopa	4013	88%	5%	9%	0%	0.04	0.0%	0.1	396	350	0.2%	1.0	0%	91%	0%	24.0	18.4	3	1	4	3	3	14	0.07
Mohave	4015	67%	20%	25%	0%	0.14	0.1%	0.7	157	106	0.1%	0.4	1%	72%	3%	11.7	7.8	2	3	3	2	2	12	0.43
Navajo	4017	80%	15%	46%	1%	0.13	4.7%	25.9	2,740	2186	0.9%	5.6	9%	51%	37%	6.4	3.7	3	3	2	4	2	14	0.93
Pima	4019	89%	8%	21%	0%	0.08	0.0%	0.1	249	222	0.1%	0.6	0%	39%	0%	11.5	10.8	3	1	3	3	2	12	0.50
Pinal	4021	76%	13%	10%	0%	0.10	0.3%	1.8	203	155	0.1%	0.7	0%	25%	0%	12.8	10.6	3	2	3	3	1	12	0.29
Santa Cruz	4023	92%	22%	78%	0%	0.20	0.4%	2.3	117	108	0.1%	0.5	0%	0%	2%	3.0	2.8	4	3	1	2	1	11	0.71
Yavapai	4025	32%	30%	51%	0%	0.10	0.4%	2.3	311	100	0.1%	0.7	1%	0%	4%	32.7	10.2	1	2	3	2	1	9	0.00
Yuma	4027	100%	<1%	0%	0%	0.01	0.0%	0.3	34	34	0.2%	1.0	0%	0%	0%	18.4	18.4	4	1	4	1	1	11	0.86

New Mexico County

County	County ID	Likelihood of Vegetative Change	Wildfire Hazard Potential	Percent Treed	Percent Treed At Risk	Intersecting Stressors	Livestock as a Percentage of Total Employment	Livestock Location Quotient	Livestock Farms	Livestock Farm Exposure	Timber as a Percentage of Total Employment	Timber Location Quotient	Timber Vegetation Type (ERU)	Timber Vegetation Exposure	Households Heating with Wood	Watershed Importance	Watershed Importance Exposure	Likelihood of Vegetative Change Quartile	Intersecting Stressors Quartile	Watershed Exposure Quartile	Livestock Farm Exposure Quartile	Timber Vegetation Exposure Quartile	Total Exposure Sum	Social Vulnerability Index Rank
New Mexico							1%				0.21%													
Bernalillo	35001	84%	5%	36%	9%	0.12	0%	0.1	413	116	0.16%	0.8	9%	90%	2%	9.7	7.7	3	3	3	1	4	14	0.31
Catron	35003	28%	59%	68%	2%	0.18	19%	15.4	239	219	0.91%	4.4	23%	44%	45%	1.8	0.4	1	4	1	2	2	10	0.13
Chaves	35005	92%	29%	4%	0%	0.27	1%	0.8	248	138	0.09%	0.5	0%	100%	2%	5.1	4.3	3	4	2	3	4	16	0.81
Cibola	35006	56%	3%	60%	2%	0.03	4%	3.1	454	37	1.18%	5.6	14%	57%	17%	6.1	3.6	2	1	2	2	2	9	0.97
Colfax	35007	8%	34%	51%	14%	0.09	3%	2.6	185	181	0.42%	2.0	38%	17%	13%	31.5	2.6	1	2	1	1	1	6	0.50
Curry	35009	98%	4%	0%	0%	0.04	1%	1.2	220	218	0.07%	0.3	0%	-	1%	3.8	3.7	4	2	2	3	1	12	0.41
DeBaca	35011	99%	28%	0%	0%	0.28	11%	9.0	131	129	0.03%	0.1	0%	-	6%	4.7	4.6	4	4	2	3	1	14	0.09
Dona Ana	35013	98%	0%	2%	0%	0.00	0%	0.3	122	119	0.14%	0.7	0%	100%	2%	23.0	22.9	4	1	4	2	4	15	0.84
Eddy	35015	97%	2%	6%	0%	0.02	1%	0.4	208	108	0.01%	0.1	0%	100%	1%	5.4	5.0	4	1	3	2	4	14	0.25
Grant	35017	52%	46%	51%	0%	0.24	2%	2.0	265	243	0.08%	0.4	6%	87%	12%	0.7	0.2	1	4	1	1	3	10	0.34
Guadalupe	35019	92%	2%	8%	0%	0.02	11%	9.1	204	131	0.01%	0.1	0%	-	9%	5.1	4.8	4	1	2	4	1	12	0.63
Harding	35021	64%	3%	10%	2%	0.03	38%	31.2	145	131	0.05%	0.3	0%	100%	32%	9.8	6.3	2	1	3	2	4	12	0.03
Hidalgo	35023	90%	2%	5%	0%	0.02	3%	2.7	91	86	0.02%	0.1	0%	100%	9%	0.0	0.0	3	1	1	2	4	11	0.78
Lea	35025	94%	24%	0%	0%	0.23	1%	0.5	282	225	0.09%	0.4	0%	-	0%	12.2	11.5	4	4	4	1	1	14	0.69
Lincoln	35027	80%	14%	29%	3%	0.14	3%	2.2	284	156	0.27%	1.3	6%	82%	13%	10.3	7.9	3	3	4	4	3	17	0.16
Los Alamos	35028	55%	43%	99%	8%	0.31	0%	0.0	0	0	0.00%	0.0	63%	55%	2%	24.1	13.6	2	4	4	2	2	14	0.00
Luna	35029	99%	1%	0%	0%	0.01	1%	0.4	68	39	1.97%	9.4	0%	100%	3%	0.0	0.0	4	1	1	1	4	11	1.00
McKinley	35031	57%	2%	43%	4%	0.04	6%	5.0	1,934	262	0.98%	4.7	8%	62%	39%	5.4	3.3	2	2	2	1	2	9	0.94
Mora	35033	14%	30%	47%	14%	0.10	30%	24.6	358	304	0.72%	3.4	29%	23%	71%	30.0	3.8	1	2	2	4	1	10	0.41

County	County ID	Likelihood of Vegetative Change	Wildfire Hazard Potential	Percent Treed	Percent Treed At Risk	Intersecting Stressors	Livestock as a Percentage of Total Employment	Livestock Location Quotient	Livestock Farms	Livestock Farm Exposure	Timber as a Percentage of Total Employment	Timber Location Quotient	Timber Vegetation Type (ERU)	Timber Vegetation Exposure	Households Heating with Wood	Watershed Importance	Watershed Importance Exposure	Likelihood of Vegetative Change Quartile	Intersecting Stressors Quartile	Watershed Exposure Quartile	Livestock Farm Exposure Quartile	Timber Vegetation Exposure Quartile	Total Exposure Sum	Social Vulnerability Index Rank
Otero	35035	85%	21%	26%	20%	0.39	1%	0.8	212	201	0.08%	0.4	12%	90%	8%	6.9	4.6	3	4	2	4	3	16	0.66
Quay	35037	95%	6%	3%	0%	0.06	11%	8.8	338	77	0.05%	0.3	0%	-	4%	13.5	12.7	4	2	4	3	1	14	0.28
Rio Arriba	35039	23%	30%	82%	17%	0.16	6%	5.3	593	534	0.16%	0.8	38%	16%	19%	29.0	4.9	1	3	3	1	1	9	0.59
Roosevelt	35041	90%	28%	0%	0%	0.25	3%	2.9	318	198	0.08%	0.4	0%	-	2%	0.5	0.5	3	4	1	4	1	13	0.75
San Juan	35043	62%	4%	43%	14%	0.12	1%	0.9	1,685	1314	0.20%	1.0	18%	26%	14%	15.6	7.4	2	2	3	3	1	11	0.47
San Miguel	35045	78%	14%	23%	4%	0.14	6%	5.0	591	332	0.51%	2.4	4%	62%	39%	16.1	11.8	3	3	4	4	2	16	0.91
Sandoval	35047	56%	17%	48%	9%	0.16	1%	1.1	452	165	0.11%	0.5	11%	27%	5%	19.5	8.6	2	3	4	4	1	14	0.06
Santa Fe	35049	37%	24%	54%	14%	0.17	0%	0.3	228	169	0.14%	0.7	14%	14%	6%	17.7	5.7	1	3	3	3	1	11	0.22
Sierra	35051	74%	22%	22%	1%	0.17	2%	1.3	123	84	0.37%	1.8	5%	84%	6%	22.9	14.2	3	3	4	3	3	16	0.56
Socorro	35053	69%	17%	25%	4%	0.15	5%	3.7	326	40	0.02%	0.1	5%	71%	19%	7.8	5.0	2	3	3	1	3	12	0.88
Taos	35055	12%	37%	65%	34%	0.21	2%	2.1	272	146	0.35%	1.7	41%	9%	28%	21.6	2.9	1	4	1	1	1	8	0.38
Torrance	35057	54%	4%	29%	3%	0.04	9%	7.6	469	203	0.52%	2.5	4%	88%	21%	2.8	1.4	2	2	1	2	3	10	0.53
Union	35059	43%	2%	14%	5%	0.03	13%	11.0	270	254	0.07%	0.3	1%	40%	10%	16.9	7.6	1	2	3	3	2	11	0.19
Valencia	35061	94%	0%	8%	0%	0.01	3%	2.6	587	0	0.46%	2.2	0%	89%	8%	10.6	9.5	4	1	4	4	3	16	0.72

Arizona Census Tract

GEOID	County	County ID	Likelihood of Vegetative Change	Timber Vegetation Type (ERU)	Timber Vegetation Exposure	Watershed Importance	Watershed Importance Exposure	Social Vulnerability Index Rank
4001942600	Apache	4001	75%	0%	100%	1.3	1.1	0.85
4001942700	Apache	4001	67%	13%	78%	1.9	1.4	0.95
4001944000	Apache	4001	72%	28%	99%	1.8	1.2	0.83
4001944100	Apache	4001	72%	16%	78%	2.0	1.3	0.97
4001944201	Apache	4001	98%	0%	0%	0.0	0.0	0.97
4001944202	Apache	4001	88%	0%	0%	0.1	0.1	0.89
4001944300	Apache	4001	84%	3%	100%	0.1	0.1	0.96
4001944901	Apache	4001	68%	21%	100%	0.4	0.3	0.95
4001944902	Apache	4001	69%	0%	0%	0.0	0.0	0.99
4001945001	Apache	4001	84%	36%	100%	0.6	0.5	0.89
4001945002	Apache	4001	73%	9%	100%	0.3	0.2	0.87
4001945100	Apache	4001	69%	0%	0%	0.0	0.0	0.85
4001970200	Apache	4001	86%	0%	94%	0.2	0.1	0.51
4001970300	Apache	4001	47%	10%	100%	1.9	0.6	0.81
4001970501	Apache	4001	0%	0%	0%	4.1	0.0	0.72
4001970502	Apache	4001	18%	70%	12%	36.7	9.1	0.54
4003000100	Cochise	4003	88%	0%	100%	0.5	0.1	0.55
4003000201	Cochise	4003	97%	0%	100%	0.1	0.1	0.63
4003000202	Cochise	4003	100%	0%	0%	0.0	0.0	0.87
4003000203	Cochise	4003	100%	0%	0%	0.0	0.0	0.51
4003000301	Cochise	4003	100%	0%	0%	0.0	0.0	0.85
4003000302	Cochise	4003	95%	0%	0%	1.2	1.1	0.23
4003000303	Cochise	4003	94%	0%	100%	1.6	1.5	0.48
4003000400	Cochise	4003	91%	0%	0%	0.1	0.1	0.42
4003000500	Cochise	4003	82%	2%	95%	0.5	0.2	0.73
4003000600	Cochise	4003	98%	0%	0%	0.0	0.0	0.82
4003000700	Cochise	4003	100%	0%	0%	0.0	0.0	0.94
4003000800	Cochise	4003	100%	0%	0%	0.0	0.0	0.90
4003000901	Cochise	4003	100%	0%	0%	0.0	0.0	0.98
4003000902	Cochise	4003	100%	0%	0%	0.0	0.0	0.99
4003001000	Cochise	4003	95%	0%	100%	0.1	0.1	0.66
4003001100	Cochise	4003	99%	0%	0%	0.2	0.2	0.80
4003001200	Cochise	4003	97%	0%	0%	1.0	1.0	0.75
4003001300	Cochise	4003	99%	0%	0%	1.0	0.9	0.68
4003001401	Cochise	4003	100%	0%	0%	1.1	1.0	0.24
4003001402	Cochise	4003	72%	2%	100%	2.0	1.7	0.33
4003001501	Cochise	4003	100%	0%	0%	0.0	0.0	0.82
4003001502	Cochise	4003	100%	0%	0%	1.0	0.9	0.86
4003001601	Cochise	4003	100%	0%	0%	0.0	0.0	0.47
4003001602	Cochise	4003	100%	0%	0%	0.0	0.0	0.88
4003001701	Cochise	4003	100%	0%	0%	0.0	0.0	0.51
4003001702	Cochise	4003	100%	0%	0%	0.0	0.0	0.68
4003001703	Cochise	4003	100%	0%	0%	0.1	0.1	0.50
4003001800	Cochise	4003	100%	0%	0%	0.0	0.0	0.35
4003001900	Cochise	4003	100%	0%	0%	23.1	20.5	0.14
4003002001	Cochise	4003	100%	0%	0%	37.3	33.3	0.64
4003002002	Cochise	4003	100%	0%	0%	18.8	16.7	0.46
4003002100	Cochise	4003	83%	3%	100%	5.2	4.6	0.28

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4005000100	Coconino	4005	1%	93%	0%	10.0	0.2	0.16
4005000200	Coconino	4005	2%	86%	2%	5.9	1.3	0.39
4005000300	Coconino	4005	11%	79%	12%	5.0	1.5	0.91
4005000400	Coconino	4005	31%	55%	33%	5.0	1.5	0.43
4005000500	Coconino	4005	57%	62%	90%	5.0	1.5	0.58
4005000600	Coconino	4005	46%	85%	54%	3.7	1.2	0.34
4005000700	Coconino	4005	27%	57%	47%	5.0	1.5	0.31
4005000800	Coconino	4005	19%	55%	34%	5.5	1.3	0.61
4005000900	Coconino	4005	9%	96%	9%	8.5	2.0	0.31
4005001000	Coconino	4005	7%	76%	10%	6.2	0.2	0.56
4005001101	Coconino	4005	0%	98%	0%	6.7	0.1	0.24
4005001102	Coconino	4005	0%	86%	0%	9.2	0.2	0.56
4005001200	Coconino	4005	1%	96%	1%	9.8	0.2	0.22
4005001301	Coconino	4005	62%	58%	74%	5.5	2.1	0.17
4005001302	Coconino	4005	75%	23%	81%	1.1	0.5	0.34
4005001500	Coconino	4005	49%	47%	49%	19.4	6.8	0.31
4005001600	Coconino	4005	30%	19%	75%	56.3	20.8	0.31
4005001700	Coconino	4005	74%	84%	82%	41.2	31.2	0.58
4005002000	Coconino	4005	70%	24%	39%	6.7	4.1	0.46
4005002100	Coconino	4005	100%	0%	0%	11.2	11.2	0.77
4005002200	Coconino	4005	56%	37%	34%	13.5	3.5	0.42
4005002300	Coconino	4005	78%	11%	83%	14.4	10.5	0.53
4005942201	Coconino	4005	88%	0%	0%	2.8	2.6	0.89
4005942202	Coconino	4005	92%	0%	100%	13.1	12.1	0.95
4005944900	Coconino	4005	99%	0%	0%	0.0	0.0	0.76
4005945000	Coconino	4005	96%	0%	100%	0.1	0.1	0.93
4005945100	Coconino	4005	87%	0%	0%	0.0	0.0	0.97
4005945200	Coconino	4005	100%	0%	0%	0.0	0.0	0.66
4007000100	Gila	4007	34%	7%	100%	64.9	23.4	0.21
4007000200	Gila	4007	66%	32%	92%	67.6	41.1	0.29
4007000301	Gila	4007	44%	0%	0%	40.3	9.7	0.63
4007000302	Gila	4007	35%	2%	100%	60.2	23.8	0.45
4007000400	Gila	4007	25%	0%	0%	63.9	20.8	0.45
4007000500	Gila	4007	19%	0%	100%	50.1	13.5	0.55
4007000600	Gila	4007	24%	1%	82%	56.9	14.0	0.57
4007000700	Gila	4007	27%	1%	100%	62.2	17.4	0.38
4007000800	Gila	4007	52%	0%	0%	55.7	29.4	0.79
4007000900	Gila	4007	80%	0%	0%	62.9	32.9	0.78
4007001000	Gila	4007	40%	0%	0%	43.3	17.6	0.68
4007001100	Gila	4007	47%	0%	0%	53.6	24.0	0.63
4007001200	Gila	4007	25%	6%	100%	32.3	14.7	0.75
4007001300	Gila	4007	77%	0%	0%	5.8	4.1	0.77
4007940200	Gila	4007	23%	4%	99%	45.1	12.2	0.83
4007940400	Gila	4007	43%	2%	100%	16.3	4.8	0.96
4009940500	Graham	4009	42%	3%	76%	16.2	7.6	0.94
4009961100	Graham	4009	71%	6%	57%	0.5	0.3	0.64
4009961201	Graham	4009	100%	0%	0%	0.0	0.0	0.53
4009961202	Graham	4009	93%	0%	0%	0.1	0.1	0.58

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4009961300	Graham	4009	100%	0%	0%	0.0	0.0	0.88
4009961400	Graham	4009	100%	0%	0%	0.0	0.0	0.69
4009961500	Graham	4009	99%	0%	0%	0.0	0.0	0.69
4009961600	Graham	4009	71%	2%	79%	1.4	0.8	0.57
4009961700	Graham	4009	87%	0%	0%	2.2	1.5	0.75
4011960100	Greenlee	4011	29%	22%	25%	16.2	4.3	0.74
4011960200	Greenlee	4011	82%	0%	0%	8.5	5.9	0.40
4011960300	Greenlee	4011	90%	0%	100%	0.2	0.1	0.72
4012020100	La Paz	4012	93%	0%	0%	10.8	10.2	0.63
4012020201	La Paz	4012	100%	0%	0%	24.1	24.1	0.52
4012020202	La Paz	4012	100%	0%	0%	21.8	21.8	0.15
4012020501	La Paz	4012	100%	0%	0%	12.8	12.8	0.59
4012020502	La Paz	4012	100%	0%	0%	16.5	16.5	0.54
4012020602	La Paz	4012	100%	0%	0%	14.7	14.7	0.62
4012940200	La Paz	4012	100%	0%	0%	16.0	16.0	0.76
4012940300	La Paz	4012	100%	0%	0%	18.6	18.6	0.96
4012980000	La Paz	4012	100%	0%	0%	13.5	13.5	-999.00
4013010101	Maricopa	4013	69%	0%	0%	56.7	26.1	0.01
4013010102	Maricopa	4013	45%	0%	100%	72.1	32.7	0.05
4013030401	Maricopa	4013	38%	0%	0%	66.0	41.4	0.12
4013030402	Maricopa	4013	59%	0%	0%	70.9	33.0	0.14
4013040502	Maricopa	4013	0%	0%	0%	8.9	0.4	0.59
4013040506	Maricopa	4013	100%	0%	0%	5.0	5.0	0.23
4013040507	Maricopa	4013	100%	0%	0%	5.0	5.0	0.32
4013040512	Maricopa	4013	100%	0%	0%	5.0	5.0	0.14
4013040513	Maricopa	4013	100%	0%	0%	5.0	5.0	0.01
4013040514	Maricopa	4013	100%	0%	0%	4.4	4.4	0.08
4013040515	Maricopa	4013	73%	0%	0%	3.5	2.4	0.59
4013040516	Maricopa	4013	100%	0%	0%	5.2	4.8	0.15
4013040517	Maricopa	4013	100%	0%	0%	7.8	6.2	0.46
4013040518	Maricopa	4013	57%	0%	0%	10.3	6.6	0.45
4013040519	Maricopa	4013	91%	0%	0%	28.9	22.9	0.03
4013040520	Maricopa	4013	100%	0%	0%	4.2	4.2	0.01
4013040521	Maricopa	4013	100%	0%	0%	4.2	4.2	0.09
4013040522	Maricopa	4013	100%	0%	0%	4.3	4.3	0.14
4013040523	Maricopa	4013	100%	0%	0%	4.1	4.1	0.09
4013040524	Maricopa	4013	100%	0%	0%	5.1	5.1	0.08
4013040525	Maricopa	4013	100%	0%	0%	5.0	5.0	0.03
4013040526	Maricopa	4013	100%	0%	0%	5.0	5.0	0.10
4013040527	Maricopa	4013	100%	0%	0%	5.0	5.0	0.41
4013040528	Maricopa	4013	100%	0%	0%	5.0	5.0	0.04
4013040529	Maricopa	4013	100%	0%	0%	5.0	5.0	0.15
4013040530	Maricopa	4013	100%	0%	0%	5.0	5.0	0.51
4013040531	Maricopa	4013	100%	0%	0%	5.0	5.0	0.38
4013050603	Maricopa	4013	100%	0%	0%	9.6	9.6	0.65
4013050604	Maricopa	4013	100%	0%	0%	9.1	9.1	0.74
4013050605	Maricopa	4013	95%	0%	0%	6.4	6.2	0.33
4013050606	Maricopa	4013	100%	0%	0%	8.7	8.7	0.34

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4013050607	Maricopa	4013	100%	0%	0%	9.0	9.0	0.48
4013050608	Maricopa	4013	100%	0%	0%	9.0	9.0	0.64
4013050609	Maricopa	4013	100%	0%	0%	9.0	9.0	0.55
4013050610	Maricopa	4013	100%	0%	0%	9.0	9.0	0.50
4013050611	Maricopa	4013	100%	0%	0%	9.0	9.0	0.44
4013050701	Maricopa	4013	100%	0%	0%	9.0	9.0	0.56
4013050702	Maricopa	4013	100%	0%	0%	9.0	9.0	0.81
4013060801	Maricopa	4013	100%	0%	0%	5.0	5.0	0.98
4013060802	Maricopa	4013	100%	0%	0%	5.0	5.0	0.61
4013060901	Maricopa	4013	100%	0%	0%	5.0	5.0	0.62
4013060902	Maricopa	4013	100%	0%	0%	5.0	5.0	0.90
4013060903	Maricopa	4013	100%	0%	0%	5.0	5.0	0.71
4013060904	Maricopa	4013	100%	0%	0%	5.0	5.0	0.65
4013061009	Maricopa	4013	100%	0%	0%	6.0	6.0	0.31
4013061010	Maricopa	4013	100%	0%	0%	6.0	6.0	0.10
4013061011	Maricopa	4013	100%	0%	0%	8.2	8.2	0.37
4013061012	Maricopa	4013	100%	0%	0%	7.9	7.9	0.47
4013061013	Maricopa	4013	100%	0%	0%	35.6	35.6	0.34
4013061014	Maricopa	4013	100%	0%	0%	44.2	44.2	0.48
4013061015	Maricopa	4013	100%	0%	0%	53.7	53.7	0.29
4013061016	Maricopa	4013	100%	0%	0%	6.0	6.0	0.20
4013061017	Maricopa	4013	100%	0%	0%	6.0	6.0	-999.00
4013061018	Maricopa	4013	100%	0%	0%	6.0	6.0	0.03
4013061019	Maricopa	4013	100%	0%	0%	18.2	18.2	0.45
4013061020	Maricopa	4013	100%	0%	0%	6.0	6.0	0.30
4013061021	Maricopa	4013	100%	0%	0%	6.0	6.0	0.16
4013061022	Maricopa	4013	100%	0%	0%	6.0	6.0	0.39
4013061023	Maricopa	4013	100%	0%	0%	6.4	6.4	0.23
4013061024	Maricopa	4013	100%	0%	0%	6.5	6.5	0.54
4013061025	Maricopa	4013	100%	0%	0%	5.0	5.0	0.14
4013061026	Maricopa	4013	100%	0%	0%	5.0	5.0	0.32
4013061027	Maricopa	4013	100%	0%	0%	5.0	5.0	0.38
4013061028	Maricopa	4013	100%	0%	0%	5.0	5.0	0.57
4013061029	Maricopa	4013	100%	0%	0%	5.0	5.0	0.48
4013061030	Maricopa	4013	100%	0%	0%	5.0	5.0	0.16
4013061031	Maricopa	4013	100%	0%	0%	5.0	5.0	0.26
4013061032	Maricopa	4013	100%	0%	0%	5.0	5.0	0.40
4013061033	Maricopa	4013	100%	0%	0%	5.0	5.0	0.41
4013061034	Maricopa	4013	100%	0%	0%	5.0	5.0	0.44
4013061035	Maricopa	4013	100%	0%	0%	5.0	5.0	0.28
4013061036	Maricopa	4013	100%	0%	0%	5.0	5.0	0.30
4013061037	Maricopa	4013	100%	0%	0%	5.0	5.0	0.24
4013061038	Maricopa	4013	100%	0%	0%	5.0	5.0	0.41
4013061039	Maricopa	4013	100%	0%	0%	5.0	5.0	0.34
4013061040	Maricopa	4013	100%	0%	0%	5.0	5.0	0.25
4013061041	Maricopa	4013	100%	0%	0%	5.0	5.0	0.26
4013061042	Maricopa	4013	100%	0%	0%	5.0	5.0	0.45
4013061043	Maricopa	4013	100%	0%	0%	5.0	5.0	0.38

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4013061044	Maricopa	4013	100%	0%	0%	5.5	5.5	0.24
4013061045	Maricopa	4013	100%	0%	0%	6.0	6.0	0.33
4013061046	Maricopa	4013	100%	0%	0%	5.0	5.0	0.57
4013061047	Maricopa	4013	100%	0%	0%	5.4	5.4	0.15
4013061100	Maricopa	4013	100%	0%	0%	5.6	5.6	0.30
4013061200	Maricopa	4013	100%	0%	0%	41.5	41.5	0.97
4013061300	Maricopa	4013	100%	0%	0%	6.3	6.3	0.44
4013061401	Maricopa	4013	100%	0%	0%	31.5	31.5	0.93
4013061402	Maricopa	4013	100%	0%	0%	55.9	55.9	0.90
4013071503	Maricopa	4013	100%	0%	0%	51.3	51.3	0.40
4013071504	Maricopa	4013	100%	0%	0%	52.4	52.4	0.18
4013071505	Maricopa	4013	100%	0%	0%	8.2	8.2	0.36
4013071506	Maricopa	4013	100%	0%	0%	55.0	55.0	0.08
4013071509	Maricopa	4013	100%	0%	0%	54.5	54.5	0.33
4013071510	Maricopa	4013	100%	0%	0%	55.0	55.0	0.22
4013071511	Maricopa	4013	100%	0%	0%	54.0	54.0	0.54
4013071512	Maricopa	4013	100%	0%	0%	55.0	55.0	0.11
4013071513	Maricopa	4013	100%	0%	0%	54.9	54.9	0.17
4013071514	Maricopa	4013	100%	0%	0%	55.1	55.1	0.41
4013071515	Maricopa	4013	100%	0%	0%	55.0	55.0	0.49
4013071516	Maricopa	4013	100%	0%	0%	55.0	55.0	0.53
4013071517	Maricopa	4013	100%	0%	0%	55.0	55.0	0.29
4013071600	Maricopa	4013	100%	0%	0%	15.9	15.9	0.85
4013071701	Maricopa	4013	100%	0%	0%	6.4	6.4	0.55
4013071702	Maricopa	4013	100%	0%	0%	51.0	51.0	0.41
4013071801	Maricopa	4013	100%	0%	0%	55.0	55.0	0.53
4013071802	Maricopa	4013	100%	0%	0%	55.0	55.0	0.32
4013071903	Maricopa	4013	100%	0%	0%	55.0	55.0	0.59
4013071906	Maricopa	4013	100%	0%	0%	55.0	55.0	0.73
4013071909	Maricopa	4013	100%	0%	0%	55.0	55.0	0.49
4013071910	Maricopa	4013	100%	0%	0%	55.0	55.0	0.77
4013071911	Maricopa	4013	100%	0%	0%	55.0	55.0	0.51
4013071912	Maricopa	4013	100%	0%	0%	55.0	55.0	0.80
4013071913	Maricopa	4013	100%	0%	0%	55.0	55.0	0.90
4013071914	Maricopa	4013	100%	0%	0%	55.0	55.0	0.65
4013071915	Maricopa	4013	100%	0%	0%	55.0	55.0	0.70
4013082002	Maricopa	4013	100%	0%	0%	56.0	56.0	0.50
4013082007	Maricopa	4013	100%	0%	0%	56.0	56.0	0.73
4013082008	Maricopa	4013	100%	0%	0%	56.0	56.0	0.89
4013082009	Maricopa	4013	100%	0%	0%	56.0	56.0	0.72
4013082010	Maricopa	4013	100%	0%	0%	56.0	56.0	0.84
4013082012	Maricopa	4013	100%	0%	0%	56.0	56.0	0.46
4013082016	Maricopa	4013	100%	0%	0%	56.0	56.0	0.37
4013082017	Maricopa	4013	100%	0%	0%	56.0	56.0	0.67
4013082018	Maricopa	4013	100%	0%	0%	56.0	56.0	0.71
4013082019	Maricopa	4013	100%	0%	0%	56.0	56.0	0.28
4013082020	Maricopa	4013	100%	0%	0%	56.0	56.0	0.31
4013082021	Maricopa	4013	100%	0%	0%	56.0	56.0	0.30

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4013082022	Maricopa	4013	100%	0%	0%	56.0	56.0	0.57
4013082023	Maricopa	4013	100%	0%	0%	56.0	56.0	0.33
4013082024	Maricopa	4013	100%	0%	0%	56.0	56.0	0.67
4013082025	Maricopa	4013	100%	0%	0%	56.0	56.0	0.50
4013082026	Maricopa	4013	100%	0%	0%	56.0	56.0	0.56
4013082027	Maricopa	4013	100%	0%	0%	56.0	56.0	0.52
4013082028	Maricopa	4013	100%	0%	0%	56.0	56.0	0.71
4013082203	Maricopa	4013	100%	0%	0%	56.0	56.0	0.46
4013082204	Maricopa	4013	100%	0%	0%	36.9	36.9	0.65
4013082205	Maricopa	4013	100%	0%	0%	56.0	56.0	0.53
4013082206	Maricopa	4013	100%	0%	0%	21.8	21.8	0.49
4013082207	Maricopa	4013	100%	0%	0%	46.3	46.3	0.66
4013082208	Maricopa	4013	100%	0%	0%	48.4	48.4	0.69
4013082209	Maricopa	4013	100%	0%	0%	56.0	56.0	0.69
4013082210	Maricopa	4013	100%	0%	0%	56.0	56.0	0.54
4013082211	Maricopa	4013	100%	0%	0%	56.0	56.0	0.35
4013083000	Maricopa	4013	100%	0%	0%	56.0	56.0	0.80
4013092305	Maricopa	4013	100%	0%	0%	55.0	55.0	0.67
4013092306	Maricopa	4013	100%	0%	0%	55.0	55.0	0.70
4013092307	Maricopa	4013	100%	0%	0%	55.0	55.0	0.76
4013092308	Maricopa	4013	100%	0%	0%	55.0	55.0	0.64
4013092309	Maricopa	4013	100%	0%	0%	55.5	55.5	0.62
4013092311	Maricopa	4013	100%	0%	0%	55.0	55.0	0.79
4013092312	Maricopa	4013	100%	0%	0%	55.0	55.0	0.79
4013092401	Maricopa	4013	100%	0%	0%	55.9	55.9	0.92
4013092402	Maricopa	4013	100%	0%	0%	56.0	56.0	0.74
4013092500	Maricopa	4013	100%	0%	0%	55.6	55.6	0.89
4013092600	Maricopa	4013	100%	0%	0%	55.3	55.3	0.99
4013092705	Maricopa	4013	100%	0%	0%	55.0	55.0	0.79
4013092708	Maricopa	4013	100%	0%	0%	55.0	55.0	0.73
4013092709	Maricopa	4013	100%	0%	0%	55.0	55.0	0.58
4013092710	Maricopa	4013	100%	0%	0%	55.1	55.1	0.53
4013092711	Maricopa	4013	100%	0%	0%	55.0	55.0	0.79
4013092712	Maricopa	4013	100%	0%	0%	55.3	55.3	0.65
4013092713	Maricopa	4013	100%	0%	0%	56.0	56.0	0.71
4013092715	Maricopa	4013	100%	0%	0%	56.0	56.0	0.85
4013092716	Maricopa	4013	100%	0%	0%	56.0	56.0	0.71
4013092717	Maricopa	4013	100%	0%	0%	55.2	55.2	0.82
4013092718	Maricopa	4013	100%	0%	0%	56.0	56.0	0.93
4013092719	Maricopa	4013	100%	0%	0%	56.0	56.0	0.55
4013092720	Maricopa	4013	100%	0%	0%	42.4	42.4	0.38
4013092721	Maricopa	4013	100%	0%	0%	55.0	55.0	0.17
4013092723	Maricopa	4013	100%	0%	0%	17.5	17.5	0.38
4013092724	Maricopa	4013	100%	0%	0%	55.0	55.0	0.80
4013092801	Maricopa	4013	100%	0%	0%	56.0	56.0	0.97
4013092802	Maricopa	4013	100%	0%	0%	56.0	56.0	0.97
4013092900	Maricopa	4013	100%	0%	0%	56.0	56.0	0.98
4013093001	Maricopa	4013	100%	0%	0%	56.0	56.0	0.94

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GEOID	County	County ID	Likelihood of Vegetative Change	Timber Vegetation Type (ERU)	Timber Vegetation Exposure	Watershed Importance	Watershed Importance Exposure	Social Vulnerability Index Rank
4013093002	Maricopa	4013	100%	0%	0%	56.0	56.0	0.96
4013093101	Maricopa	4013	100%	0%	0%	56.0	56.0	0.97
4013093104	Maricopa	4013	100%	0%	0%	56.0	56.0	1.00
4013093105	Maricopa	4013	100%	0%	0%	56.0	56.0	0.95
4013093106	Maricopa	4013	100%	0%	0%	56.0	56.0	0.98
4013093200	Maricopa	4013	100%	0%	0%	55.0	55.0	0.90
4013103205	Maricopa	4013	100%	0%	0%	57.0	57.0	0.07
4013103206	Maricopa	4013	100%	0%	0%	57.0	57.0	0.06
4013103207	Maricopa	4013	100%	0%	0%	57.0	57.0	0.08
4013103208	Maricopa	4013	100%	0%	0%	57.0	57.0	0.28
4013103209	Maricopa	4013	100%	0%	0%	57.0	57.0	0.18
4013103210	Maricopa	4013	100%	0%	0%	57.0	57.0	0.53
4013103211	Maricopa	4013	100%	0%	0%	57.0	57.0	0.06
4013103212	Maricopa	4013	100%	0%	0%	57.0	57.0	0.02
4013103214	Maricopa	4013	100%	0%	0%	57.0	57.0	0.08
4013103215	Maricopa	4013	100%	0%	0%	57.0	57.0	0.15
4013103216	Maricopa	4013	100%	0%	0%	57.0	57.0	0.17
4013103217	Maricopa	4013	100%	0%	0%	57.0	57.0	0.44
4013103219	Maricopa	4013	100%	0%	0%	56.8	56.5	0.13
4013103220	Maricopa	4013	100%	0%	0%	57.0	57.0	0.21
4013103302	Maricopa	4013	100%	0%	0%	57.0	57.0	0.67
4013103303	Maricopa	4013	100%	0%	0%	57.0	57.0	0.58
4013103304	Maricopa	4013	100%	0%	0%	59.2	59.2	0.87
4013103305	Maricopa	4013	100%	0%	0%	64.0	64.0	0.99
4013103306	Maricopa	4013	100%	0%	0%	61.7	61.7	0.90
4013103400	Maricopa	4013	100%	0%	0%	57.0	57.0	0.29
4013103501	Maricopa	4013	100%	0%	0%	58.6	58.6	0.43
4013103502	Maricopa	4013	100%	0%	0%	58.2	58.2	0.19
4013103604	Maricopa	4013	100%	0%	0%	64.0	64.0	0.65
4013103605	Maricopa	4013	100%	0%	0%	64.0	64.0	0.18
4013103606	Maricopa	4013	100%	0%	0%	64.0	64.0	0.39
4013103607	Maricopa	4013	100%	0%	0%	64.0	64.0	0.26
4013103608	Maricopa	4013	100%	0%	0%	62.8	62.8	0.36
4013103609	Maricopa	4013	100%	0%	0%	63.9	63.9	0.52
4013103611	Maricopa	4013	100%	0%	0%	64.0	64.0	0.18
4013103612	Maricopa	4013	100%	0%	0%	64.0	64.0	0.24
4013103614	Maricopa	4013	100%	0%	0%	64.0	64.0	0.49
4013103615	Maricopa	4013	100%	0%	0%	61.5	61.5	0.98
4013103701	Maricopa	4013	100%	0%	0%	62.2	62.2	0.60
4013103702	Maricopa	4013	100%	0%	0%	61.2	61.2	0.30
4013103900	Maricopa	4013	100%	0%	0%	63.6	63.6	0.60
4013104000	Maricopa	4013	100%	0%	0%	54.2	54.2	0.71
4013104100	Maricopa	4013	100%	0%	0%	54.6	54.6	0.77
4013104202	Maricopa	4013	100%	0%	0%	54.0	54.0	0.40
4013104203	Maricopa	4013	100%	0%	0%	54.0	54.0	0.44
4013104204	Maricopa	4013	100%	0%	0%	54.0	54.0	0.48
4013104205	Maricopa	4013	100%	0%	0%	54.7	54.7	0.73
4013104206	Maricopa	4013	100%	0%	0%	55.2	55.2	0.70

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4013104207	Maricopa	4013	100%	0%	0%	54.2	54.2	0.44
4013104212	Maricopa	4013	100%	0%	0%	54.0	54.0	0.52
4013104214	Maricopa	4013	100%	0%	0%	54.0	54.0	0.31
4013104215	Maricopa	4013	100%	0%	0%	54.0	54.0	0.58
4013104216	Maricopa	4013	100%	0%	0%	54.3	54.3	0.54
4013104217	Maricopa	4013	100%	0%	0%	54.0	54.0	0.63
4013104218	Maricopa	4013	100%	0%	0%	54.0	54.0	0.49
4013104219	Maricopa	4013	100%	0%	0%	54.0	54.0	0.45
4013104221	Maricopa	4013	100%	0%	0%	55.0	55.0	0.51
4013104222	Maricopa	4013	100%	0%	0%	55.0	55.0	0.30
4013104223	Maricopa	4013	100%	0%	0%	55.0	55.0	0.19
4013104224	Maricopa	4013	100%	0%	0%	54.3	54.3	0.58
4013104225	Maricopa	4013	100%	0%	0%	54.0	54.0	0.35
4013104226	Maricopa	4013	100%	0%	0%	54.0	54.0	0.59
4013104227	Maricopa	4013	100%	0%	0%	54.9	54.9	0.51
4013104301	Maricopa	4013	100%	0%	0%	54.0	54.0	0.53
4013104302	Maricopa	4013	100%	0%	0%	54.0	54.0	0.72
4013104401	Maricopa	4013	100%	0%	0%	62.7	62.7	0.70
4013104402	Maricopa	4013	100%	0%	0%	58.5	58.5	0.62
4013104501	Maricopa	4013	100%	0%	0%	56.5	56.5	0.99
4013104502	Maricopa	4013	100%	0%	0%	59.0	59.0	0.98
4013104600	Maricopa	4013	100%	0%	0%	58.8	58.8	0.87
4013104701	Maricopa	4013	100%	0%	0%	59.0	59.0	0.85
4013104702	Maricopa	4013	100%	0%	0%	59.0	59.0	0.87
4013104801	Maricopa	4013	100%	0%	0%	58.2	58.2	0.16
4013104802	Maricopa	4013	100%	0%	0%	57.0	57.0	0.26
4013104900	Maricopa	4013	100%	0%	0%	57.0	57.0	0.19
4013105002	Maricopa	4013	100%	0%	0%	51.2	51.2	0.00
4013105003	Maricopa	4013	100%	0%	0%	54.1	54.1	0.06
4013105004	Maricopa	4013	100%	0%	0%	53.5	53.5	0.06
4013105101	Maricopa	4013	100%	0%	0%	57.1	57.1	0.05
4013105102	Maricopa	4013	100%	0%	0%	58.3	58.3	0.04
4013105103	Maricopa	4013	100%	0%	0%	58.6	58.6	0.02
4013105200	Maricopa	4013	100%	0%	0%	58.6	58.6	0.54
4013105300	Maricopa	4013	100%	0%	0%	53.3	53.3	0.50
4013105400	Maricopa	4013	100%	0%	0%	50.0	50.0	0.35
4013105501	Maricopa	4013	100%	0%	0%	50.0	50.0	0.86
4013105502	Maricopa	4013	100%	0%	0%	50.0	50.0	0.83
4013105503	Maricopa	4013	100%	0%	0%	50.0	50.0	0.70
4013105601	Maricopa	4013	100%	0%	0%	53.1	53.1	0.71
4013105602	Maricopa	4013	100%	0%	0%	56.0	56.0	0.85
4013105701	Maricopa	4013	100%	0%	0%	55.9	55.9	0.61
4013105702	Maricopa	4013	100%	0%	0%	56.0	56.0	0.83
4013105800	Maricopa	4013	100%	0%	0%	56.0	56.0	0.72
4013105900	Maricopa	4013	100%	0%	0%	53.3	53.3	0.91
4013106001	Maricopa	4013	100%	0%	0%	50.0	50.0	0.94
4013106002	Maricopa	4013	100%	0%	0%	50.0	50.0	0.77
4013106003	Maricopa	4013	100%	0%	0%	50.0	50.0	0.82

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4013106100	Maricopa	4013	100%	0%	0%	50.0	50.0	0.68
4013106200	Maricopa	4013	100%	0%	0%	50.0	50.0	0.06
4013106300	Maricopa	4013	100%	0%	0%	53.2	53.2	0.34
4013106400	Maricopa	4013	100%	0%	0%	54.4	54.4	0.28
4013106501	Maricopa	4013	100%	0%	0%	50.0	50.0	0.42
4013106502	Maricopa	4013	100%	0%	0%	50.0	50.0	0.57
4013106600	Maricopa	4013	100%	0%	0%	50.0	50.0	0.27
4013106701	Maricopa	4013	100%	0%	0%	50.0	50.0	0.78
4013106702	Maricopa	4013	100%	0%	0%	50.0	50.0	0.65
4013106703	Maricopa	4013	100%	0%	0%	50.0	50.0	0.47
4013106801	Maricopa	4013	100%	0%	0%	50.0	50.0	0.97
4013106802	Maricopa	4013	100%	0%	0%	50.0	50.0	0.87
4013106900	Maricopa	4013	100%	0%	0%	53.4	53.4	0.73
4013107000	Maricopa	4013	100%	0%	0%	56.0	56.0	0.84
4013107101	Maricopa	4013	100%	0%	0%	56.0	56.0	0.82
4013107102	Maricopa	4013	100%	0%	0%	56.0	56.0	0.83
4013107201	Maricopa	4013	100%	0%	0%	53.1	53.1	0.98
4013107202	Maricopa	4013	100%	0%	0%	53.5	53.5	0.79
4013107300	Maricopa	4013	100%	0%	0%	50.0	50.0	0.92
4013107400	Maricopa	4013	100%	0%	0%	50.0	50.0	0.79
4013107500	Maricopa	4013	100%	0%	0%	50.0	50.0	0.25
4013107601	Maricopa	4013	100%	0%	0%	50.0	50.0	0.61
4013107602	Maricopa	4013	100%	0%	0%	50.0	50.0	0.52
4013107700	Maricopa	4013	100%	0%	0%	50.0	50.0	0.49
4013107800	Maricopa	4013	100%	0%	0%	53.5	53.5	0.04
4013107900	Maricopa	4013	100%	0%	0%	56.9	56.9	0.11
4013108000	Maricopa	4013	100%	0%	0%	57.2	57.2	0.00
4013108100	Maricopa	4013	100%	0%	0%	58.2	58.2	0.27
4013108200	Maricopa	4013	100%	0%	0%	50.8	50.8	0.20
4013108301	Maricopa	4013	100%	0%	0%	50.9	50.9	0.07
4013108302	Maricopa	4013	100%	0%	0%	50.0	50.0	0.26
4013108400	Maricopa	4013	100%	0%	0%	50.0	50.0	0.24
4013108501	Maricopa	4013	100%	0%	0%	50.0	50.0	0.62
4013108502	Maricopa	4013	100%	0%	0%	50.0	50.0	0.29
4013108601	Maricopa	4013	100%	0%	0%	50.0	50.0	0.90
4013108602	Maricopa	4013	100%	0%	0%	50.0	50.0	0.82
4013108802	Maricopa	4013	100%	0%	0%	50.0	50.0	0.58
4013108901	Maricopa	4013	100%	0%	0%	50.0	50.0	0.63
4013108902	Maricopa	4013	100%	0%	0%	50.0	50.0	0.86
4013109001	Maricopa	4013	100%	0%	0%	50.0	50.0	0.91
4013109002	Maricopa	4013	100%	0%	0%	50.0	50.0	0.88
4013109003	Maricopa	4013	100%	0%	0%	50.0	50.0	0.98
4013109101	Maricopa	4013	100%	0%	0%	53.9	53.9	0.78
4013109102	Maricopa	4013	100%	0%	0%	53.7	53.7	0.86
4013109200	Maricopa	4013	100%	0%	0%	56.0	56.0	0.96
4013109300	Maricopa	4013	100%	0%	0%	56.0	56.0	0.87
4013109400	Maricopa	4013	100%	0%	0%	56.0	56.0	0.99
4013109500	Maricopa	4013	100%	0%	0%	56.0	56.0	0.62

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4013109601	Maricopa	4013	100%	0%	0%	56.0	56.0	0.84
4013109602	Maricopa	4013	100%	0%	0%	56.0	56.0	0.94
4013109603	Maricopa	4013	100%	0%	0%	56.0	56.0	0.63
4013109604	Maricopa	4013	100%	0%	0%	56.0	56.0	0.78
4013109701	Maricopa	4013	100%	0%	0%	56.0	56.0	0.86
4013109702	Maricopa	4013	100%	0%	0%	56.0	56.0	0.74
4013109703	Maricopa	4013	100%	0%	0%	56.0	56.0	0.85
4013109704	Maricopa	4013	100%	0%	0%	56.0	56.0	0.67
4013109705	Maricopa	4013	100%	0%	0%	56.0	56.0	0.66
4013109801	Maricopa	4013	100%	0%	0%	56.0	56.0	0.83
4013109802	Maricopa	4013	100%	0%	0%	56.0	56.0	0.67
4013109900	Maricopa	4013	100%	0%	0%	56.0	56.0	0.92
4013110001	Maricopa	4013	100%	0%	0%	56.0	56.0	0.64
4013110002	Maricopa	4013	100%	0%	0%	56.0	56.0	0.86
4013110100	Maricopa	4013	100%	0%	0%	56.0	56.0	0.86
4013110400	Maricopa	4013	100%	0%	0%	50.0	50.0	0.55
4013110501	Maricopa	4013	100%	0%	0%	50.0	50.0	0.29
4013110502	Maricopa	4013	100%	0%	0%	50.0	50.0	0.45
4013110600	Maricopa	4013	100%	0%	0%	50.0	50.0	0.59
4013110701	Maricopa	4013	100%	0%	0%	50.0	50.0	0.87
4013110702	Maricopa	4013	100%	0%	0%	50.0	50.0	0.71
4013110801	Maricopa	4013	100%	0%	0%	50.0	50.0	0.78
4013110802	Maricopa	4013	100%	0%	0%	50.0	50.0	0.48
4013110901	Maricopa	4013	100%	0%	0%	50.0	50.0	0.84
4013110902	Maricopa	4013	100%	0%	0%	50.0	50.0	0.84
4013111000	Maricopa	4013	100%	0%	0%	50.0	50.0	0.28
4013111100	Maricopa	4013	100%	0%	0%	50.2	50.2	0.31
4013111201	Maricopa	4013	100%	0%	0%	50.0	50.0	0.80
4013111202	Maricopa	4013	100%	0%	0%	50.0	50.0	0.69
4013111203	Maricopa	4013	100%	0%	0%	50.0	50.0	0.67
4013111204	Maricopa	4013	100%	0%	0%	49.8	49.8	0.20
4013111300	Maricopa	4013	100%	0%	0%	50.0	50.0	0.62
4013111401	Maricopa	4013	100%	0%	0%	50.0	50.0	0.78
4013111402	Maricopa	4013	100%	0%	0%	50.0	50.0	0.88
4013111501	Maricopa	4013	100%	0%	0%	50.0	50.0	0.88
4013111502	Maricopa	4013	100%	0%	0%	50.0	50.0	0.94
4013111601	Maricopa	4013	100%	0%	0%	50.0	50.0	0.83
4013111602	Maricopa	4013	100%	0%	0%	50.0	50.0	0.90
4013111700	Maricopa	4013	100%	0%	0%	50.0	50.0	0.67
4013111800	Maricopa	4013	100%	0%	0%	50.0	50.0	0.11
4013111900	Maricopa	4013	100%	0%	0%	50.0	50.0	0.23
4013112100	Maricopa	4013	100%	0%	0%	55.2	55.2	0.86
4013112201	Maricopa	4013	100%	0%	0%	56.0	56.0	0.90
4013112202	Maricopa	4013	100%	0%	0%	56.0	56.0	0.90
4013112301	Maricopa	4013	100%	0%	0%	56.0	56.0	0.83
4013112302	Maricopa	4013	100%	0%	0%	56.0	56.0	0.91
4013112401	Maricopa	4013	100%	0%	0%	56.0	56.0	0.74
4013112402	Maricopa	4013	100%	0%	0%	56.0	56.0	0.74

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4013112502	Maricopa	4013	100%	0%	0%	56.0	56.0	0.77
4013112503	Maricopa	4013	100%	0%	0%	56.0	56.0	0.79
4013112504	Maricopa	4013	100%	0%	0%	56.0	56.0	0.89
4013112505	Maricopa	4013	100%	0%	0%	54.3	54.3	0.90
4013112507	Maricopa	4013	100%	0%	0%	47.4	47.4	0.93
4013112508	Maricopa	4013	100%	0%	0%	56.0	56.0	0.74
4013112509	Maricopa	4013	100%	0%	0%	56.0	56.0	0.78
4013112510	Maricopa	4013	100%	0%	0%	38.3	38.3	0.61
4013112511	Maricopa	4013	100%	0%	0%	8.0	8.0	0.65
4013112512	Maricopa	4013	100%	0%	0%	12.0	12.0	0.81
4013112513	Maricopa	4013	100%	0%	0%	6.0	6.0	0.62
4013112514	Maricopa	4013	100%	0%	0%	11.6	11.6	0.56
4013112601	Maricopa	4013	100%	0%	0%	33.1	33.1	0.89
4013112602	Maricopa	4013	100%	0%	0%	12.8	12.8	0.95
4013112700	Maricopa	4013	100%	0%	0%	48.0	48.0	0.81
4013112900	Maricopa	4013	100%	0%	0%	50.0	50.0	0.93
4013113000	Maricopa	4013	100%	0%	0%	50.0	50.0	0.39
4013113100	Maricopa	4013	100%	0%	0%	50.0	50.0	0.65
4013113201	Maricopa	4013	100%	0%	0%	50.0	50.0	0.92
4013113202	Maricopa	4013	100%	0%	0%	50.0	50.0	0.95
4013113203	Maricopa	4013	100%	0%	0%	50.0	50.0	0.89
4013113300	Maricopa	4013	100%	0%	0%	50.0	50.0	1.00
4013113400	Maricopa	4013	100%	0%	0%	50.0	50.0	-999.00
4013113501	Maricopa	4013	100%	0%	0%	50.0	50.0	0.97
4013113502	Maricopa	4013	100%	0%	0%	50.0	50.0	0.92
4013113601	Maricopa	4013	100%	0%	0%	50.0	50.0	0.81
4013113602	Maricopa	4013	100%	0%	0%	50.0	50.0	0.94
4013113700	Maricopa	4013	100%	0%	0%	50.0	50.0	0.84
4013113801	Maricopa	4013	100%	0%	0%	50.0	50.0	0.74
4013113802	Maricopa	4013	100%	0%	0%	50.0	50.0	-999.00
4013113900	Maricopa	4013	100%	0%	0%	50.0	50.0	0.92
4013114000	Maricopa	4013	100%	0%	0%	50.0	50.0	0.72
4013114100	Maricopa	4013	100%	0%	0%	50.0	50.0	0.49
4013114200	Maricopa	4013	100%	0%	0%	50.0	50.0	0.96
4013114301	Maricopa	4013	100%	0%	0%	50.0	50.0	0.73
4013114302	Maricopa	4013	100%	0%	0%	50.0	50.0	0.96
4013114401	Maricopa	4013	100%	0%	0%	50.0	50.0	0.73
4013114402	Maricopa	4013	100%	0%	0%	50.0	50.0	0.96
4013114500	Maricopa	4013	100%	0%	0%	50.0	50.0	0.88
4013114600	Maricopa	4013	100%	0%	0%	23.1	23.1	0.82
4013114703	Maricopa	4013	100%	0%	0%	50.0	50.0	0.76
4013114800	Maricopa	4013	100%	0%	0%	50.0	50.0	0.96
4013114900	Maricopa	4013	100%	0%	0%	50.0	50.0	0.99
4013115200	Maricopa	4013	100%	0%	0%	50.0	50.0	0.77
4013115300	Maricopa	4013	100%	0%	0%	50.0	50.0	1.00
4013115400	Maricopa	4013	100%	0%	0%	50.0	50.0	0.94
4013115500	Maricopa	4013	100%	0%	0%	10.2	10.2	0.88
4013115600	Maricopa	4013	100%	0%	0%	50.0	50.0	0.84

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4013115700	Maricopa	4013	100%	0%	0%	50.0	50.0	0.88
4013115801	Maricopa	4013	100%	0%	0%	50.0	50.0	0.99
4013115802	Maricopa	4013	100%	0%	0%	50.0	50.0	0.95
4013115900	Maricopa	4013	100%	0%	0%	50.0	50.0	0.94
4013116000	Maricopa	4013	100%	0%	0%	50.0	50.0	0.71
4013116100	Maricopa	4013	100%	0%	0%	50.0	50.0	0.91
4013116202	Maricopa	4013	100%	0%	0%	50.0	50.0	0.81
4013116203	Maricopa	4013	100%	0%	0%	50.0	50.0	0.69
4013116204	Maricopa	4013	100%	0%	0%	50.0	50.0	0.66
4013116205	Maricopa	4013	100%	0%	0%	50.0	50.0	0.83
4013116300	Maricopa	4013	100%	0%	0%	50.0	50.0	0.91
4013116400	Maricopa	4013	100%	0%	0%	50.0	50.0	0.93
4013116500	Maricopa	4013	100%	0%	0%	50.0	50.0	0.89
4013116602	Maricopa	4013	100%	0%	0%	50.0	50.0	0.78
4013116603	Maricopa	4013	100%	0%	0%	6.0	6.0	0.45
4013116604	Maricopa	4013	100%	0%	0%	6.0	6.0	0.66
4013116605	Maricopa	4013	100%	0%	0%	6.0	6.0	0.52
4013116606	Maricopa	4013	100%	0%	0%	6.0	6.0	0.59
4013116607	Maricopa	4013	100%	0%	0%	36.0	36.0	0.54
4013116608	Maricopa	4013	100%	0%	0%	6.0	6.0	0.43
4013116609	Maricopa	4013	100%	0%	0%	5.7	5.7	0.33
4013116610	Maricopa	4013	100%	0%	0%	6.0	6.0	0.38
4013116611	Maricopa	4013	100%	0%	0%	5.2	5.1	0.45
4013116612	Maricopa	4013	100%	0%	0%	6.6	6.6	0.49
4013116613	Maricopa	4013	100%	0%	0%	23.8	23.8	0.43
4013116702	Maricopa	4013	100%	0%	0%	47.3	47.3	0.95
4013116703	Maricopa	4013	100%	0%	0%	50.0	50.0	0.61
4013116704	Maricopa	4013	100%	0%	0%	50.0	50.0	0.37
4013116707	Maricopa	4013	100%	0%	0%	57.9	57.9	0.01
4013116708	Maricopa	4013	100%	0%	0%	58.0	58.0	0.34
4013116709	Maricopa	4013	100%	0%	0%	56.8	56.8	0.11
4013116710	Maricopa	4013	100%	0%	0%	36.8	36.8	0.12
4013116711	Maricopa	4013	100%	0%	0%	56.9	56.9	0.18
4013116712	Maricopa	4013	100%	0%	0%	6.3	6.3	0.39
4013116713	Maricopa	4013	100%	0%	0%	4.0	4.0	0.28
4013116714	Maricopa	4013	100%	0%	0%	4.0	4.0	0.02
4013116715	Maricopa	4013	100%	0%	0%	58.0	58.0	0.05
4013116717	Maricopa	4013	100%	0%	0%	58.0	58.0	0.32
4013116718	Maricopa	4013	100%	0%	0%	58.0	58.0	0.44
4013116719	Maricopa	4013	100%	0%	0%	32.2	32.2	0.08
4013116720	Maricopa	4013	100%	0%	0%	12.3	12.3	0.22
4013116721	Maricopa	4013	100%	0%	0%	4.0	4.0	0.04
4013116725	Maricopa	4013	100%	0%	0%	4.0	4.0	0.03
4013116727	Maricopa	4013	100%	0%	0%	4.0	4.0	0.00
4013116728	Maricopa	4013	100%	0%	0%	4.0	4.0	0.00
4013116729	Maricopa	4013	100%	0%	0%	4.0	4.0	0.01
4013116730	Maricopa	4013	100%	0%	0%	4.0	4.0	0.04
4013116731	Maricopa	4013	100%	0%	0%	4.0	4.0	0.02

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4013116732	Maricopa	4013	100%	0%	0%	7.5	7.5	0.63
4013116733	Maricopa	4013	100%	0%	0%	19.7	19.6	0.11
4013116800	Maricopa	4013	100%	0%	0%	50.1	50.1	0.75
4013116900	Maricopa	4013	100%	0%	0%	54.4	54.4	0.99
4013117000	Maricopa	4013	100%	0%	0%	50.0	50.0	0.88
4013117100	Maricopa	4013	100%	0%	0%	50.0	50.0	0.40
4013117200	Maricopa	4013	100%	0%	0%	50.0	50.0	0.95
4013117300	Maricopa	4013	100%	0%	0%	50.0	50.0	1.00
4013216806	Maricopa	4013	100%	0%	0%	48.0	48.0	0.08
4013216807	Maricopa	4013	100%	0%	0%	48.0	48.0	0.05
4013216809	Maricopa	4013	100%	0%	0%	53.0	52.7	0.11
4013216810	Maricopa	4013	100%	0%	0%	48.7	48.4	0.20
4013216813	Maricopa	4013	100%	0%	0%	48.6	48.6	0.03
4013216816	Maricopa	4013	100%	0%	0%	51.0	51.0	0.18
4013216818	Maricopa	4013	100%	0%	0%	60.8	59.9	0.17
4013216819	Maricopa	4013	94%	0%	0%	59.0	49.8	0.08
4013216820	Maricopa	4013	100%	0%	0%	59.7	54.6	0.25
4013216821	Maricopa	4013	100%	0%	0%	59.9	59.2	0.10
4013216822	Maricopa	4013	97%	0%	0%	53.1	41.6	0.05
4013216826	Maricopa	4013	100%	0%	0%	48.0	48.0	0.40
4013216829	Maricopa	4013	13%	0%	0%	52.8	33.9	0.01
4013216830	Maricopa	4013	100%	0%	0%	56.8	56.8	0.34
4013216831	Maricopa	4013	100%	0%	0%	53.5	53.5	0.21
4013216832	Maricopa	4013	100%	0%	0%	49.0	48.6	0.05
4013216833	Maricopa	4013	100%	0%	0%	49.0	48.6	0.04
4013216834	Maricopa	4013	100%	0%	0%	48.0	48.0	0.04
4013216835	Maricopa	4013	100%	0%	0%	48.0	48.0	0.17
4013216836	Maricopa	4013	100%	0%	0%	48.9	48.5	0.12
4013216837	Maricopa	4013	100%	0%	0%	49.0	48.6	0.18
4013216838	Maricopa	4013	100%	0%	0%	48.0	48.0	0.05
4013216839	Maricopa	4013	100%	0%	0%	48.6	48.3	0.08
4013216840	Maricopa	4013	100%	0%	0%	48.0	37.8	0.14
4013216841	Maricopa	4013	100%	0%	0%	48.0	37.8	0.17
4013216842	Maricopa	4013	100%	0%	0%	48.0	37.8	0.13
4013216843	Maricopa	4013	29%	0%	0%	51.8	41.4	0.04
4013216844	Maricopa	4013	100%	0%	0%	48.0	37.8	0.21
4013216845	Maricopa	4013	100%	0%	0%	48.2	38.3	0.13
4013216846	Maricopa	4013	100%	0%	0%	48.0	38.2	0.07
4013216847	Maricopa	4013	100%	0%	0%	48.0	37.8	0.07
4013216848	Maricopa	4013	99%	0%	0%	54.6	54.2	0.02
4013216849	Maricopa	4013	83%	0%	0%	49.6	43.8	0.05
4013216850	Maricopa	4013	100%	0%	0%	48.0	46.6	0.03
4013216851	Maricopa	4013	67%	0%	0%	50.4	40.4	0.01
4013216852	Maricopa	4013	100%	0%	0%	48.0	48.0	0.15
4013216853	Maricopa	4013	100%	0%	0%	48.0	47.9	0.28
4013216901	Maricopa	4013	100%	0%	0%	48.0	48.0	0.10
4013216902	Maricopa	4013	100%	0%	0%	48.1	48.0	0.27
4013217001	Maricopa	4013	100%	0%	0%	48.0	48.0	0.09

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4013217002	Maricopa	4013	100%	0%	0%	48.0	48.0	0.15
4013217101	Maricopa	4013	100%	0%	0%	48.0	48.0	0.16
4013217102	Maricopa	4013	100%	0%	0%	48.0	48.0	0.21
4013217201	Maricopa	4013	100%	0%	0%	48.0	48.0	0.34
4013217203	Maricopa	4013	100%	0%	0%	48.0	48.0	0.27
4013217204	Maricopa	4013	100%	0%	0%	48.0	48.0	0.59
4013217300	Maricopa	4013	100%	0%	0%	48.0	48.0	0.09
4013217400	Maricopa	4013	100%	0%	0%	49.2	49.2	0.37
4013217501	Maricopa	4013	100%	0%	0%	48.0	48.0	0.67
4013217502	Maricopa	4013	100%	0%	0%	48.0	48.0	0.23
4013217600	Maricopa	4013	100%	0%	0%	48.0	48.0	0.54
4013217700	Maricopa	4013	100%	0%	0%	48.0	48.0	0.18
4013217800	Maricopa	4013	100%	0%	0%	48.5	48.5	0.36
4013217900	Maricopa	4013	100%	0%	0%	48.0	48.0	0.25
4013218000	Maricopa	4013	100%	0%	0%	48.1	48.1	0.38
4013218100	Maricopa	4013	100%	0%	0%	49.3	49.3	0.46
4013218200	Maricopa	4013	100%	0%	0%	48.3	48.3	0.72
4013218300	Maricopa	4013	100%	0%	0%	52.0	52.0	0.53
4013318400	Maricopa	4013	100%	0%	0%	57.6	57.6	0.57
4013318501	Maricopa	4013	100%	0%	0%	58.8	58.8	0.46
4013318700	Maricopa	4013	100%	0%	0%	60.0	60.0	0.47
4013318800	Maricopa	4013	100%	0%	0%	52.1	52.1	0.37
4013318900	Maricopa	4013	100%	0%	0%	50.1	50.1	0.42
4013319000	Maricopa	4013	100%	0%	0%	52.8	52.8	0.34
4013319101	Maricopa	4013	100%	0%	0%	60.0	60.0	0.74
4013319103	Maricopa	4013	100%	0%	0%	60.0	60.0	0.61
4013319104	Maricopa	4013	100%	0%	0%	59.6	59.6	0.56
4013319201	Maricopa	4013	100%	0%	0%	60.0	60.0	0.82
4013319202	Maricopa	4013	100%	0%	0%	60.0	60.0	0.75
4013319300	Maricopa	4013	100%	0%	0%	60.0	60.0	0.86
4013319401	Maricopa	4013	100%	0%	0%	50.0	50.0	0.37
4013319402	Maricopa	4013	100%	0%	0%	50.8	50.8	0.16
4013319403	Maricopa	4013	100%	0%	0%	58.8	58.8	0.56
4013319404	Maricopa	4013	100%	0%	0%	59.7	59.7	0.43
4013319500	Maricopa	4013	100%	0%	0%	55.8	55.8	0.39
4013319600	Maricopa	4013	100%	0%	0%	50.1	50.1	0.43
4013319703	Maricopa	4013	100%	0%	0%	50.0	50.0	0.68
4013319704	Maricopa	4013	100%	0%	0%	50.0	50.0	0.42
4013319705	Maricopa	4013	100%	0%	0%	50.0	50.0	0.56
4013319706	Maricopa	4013	100%	0%	0%	50.0	50.0	0.64
4013319800	Maricopa	4013	100%	0%	0%	50.0	50.0	0.60
4013319902	Maricopa	4013	100%	0%	0%	50.0	50.0	0.49
4013319903	Maricopa	4013	100%	0%	0%	50.0	50.0	0.25
4013319904	Maricopa	4013	100%	0%	0%	50.7	50.7	0.25
4013319905	Maricopa	4013	100%	0%	0%	53.9	53.9	0.35
4013319906	Maricopa	4013	100%	0%	0%	53.7	53.7	0.13
4013319907	Maricopa	4013	100%	0%	0%	58.0	58.0	0.01
4013319908	Maricopa	4013	100%	0%	0%	53.8	53.8	0.48

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4013319909	Maricopa	4013	100%	0%	0%	58.0	58.0	0.14
4013319910	Maricopa	4013	100%	0%	0%	58.0	58.0	0.15
4013320001	Maricopa	4013	100%	0%	0%	56.0	56.0	0.40
4013320002	Maricopa	4013	100%	0%	0%	51.0	51.0	0.91
4013320007	Maricopa	4013	100%	0%	0%	50.0	50.0	0.46
4013320100	Maricopa	4013	100%	0%	0%	54.7	54.7	0.10
4013420104	Maricopa	4013	100%	0%	0%	61.2	61.1	0.45
4013420105	Maricopa	4013	100%	0%	0%	62.7	62.1	0.22
4013420107	Maricopa	4013	100%	0%	0%	63.7	62.7	0.01
4013420108	Maricopa	4013	100%	0%	0%	64.0	62.9	0.01
4013420109	Maricopa	4013	100%	0%	0%	63.4	62.5	0.07
4013420110	Maricopa	4013	100%	0%	0%	63.3	62.5	0.19
4013420111	Maricopa	4013	100%	0%	0%	61.0	61.0	0.45
4013420112	Maricopa	4013	100%	0%	0%	61.0	61.0	0.13
4013420113	Maricopa	4013	100%	0%	0%	61.0	61.0	0.69
4013420114	Maricopa	4013	100%	0%	0%	61.0	61.0	0.72
4013420115	Maricopa	4013	100%	0%	0%	61.0	61.0	0.68
4013420116	Maricopa	4013	100%	0%	0%	61.0	61.0	0.67
4013420202	Maricopa	4013	100%	0%	0%	61.0	61.0	0.30
4013420206	Maricopa	4013	100%	0%	0%	60.0	60.0	0.49
4013420207	Maricopa	4013	100%	0%	0%	60.0	60.0	0.02
4013420208	Maricopa	4013	100%	0%	0%	60.6	60.6	0.43
4013420209	Maricopa	4013	100%	0%	0%	61.0	61.0	0.41
4013420210	Maricopa	4013	100%	0%	0%	60.9	60.9	0.47
4013420211	Maricopa	4013	100%	0%	0%	60.0	60.0	0.06
4013420212	Maricopa	4013	100%	0%	0%	60.0	60.0	0.28
4013420213	Maricopa	4013	100%	0%	0%	60.2	60.2	0.20
4013420214	Maricopa	4013	100%	0%	0%	61.0	61.0	0.58
4013420215	Maricopa	4013	100%	0%	0%	60.9	60.9	0.53
4013420216	Maricopa	4013	100%	0%	0%	61.0	61.0	0.50
4013420301	Maricopa	4013	100%	0%	0%	60.0	60.0	0.34
4013420302	Maricopa	4013	100%	0%	0%	60.0	60.0	0.50
4013420303	Maricopa	4013	100%	0%	0%	60.0	60.0	0.38
4013420304	Maricopa	4013	100%	0%	0%	60.0	60.0	0.13
4013420401	Maricopa	4013	100%	0%	0%	60.0	60.0	0.91
4013420402	Maricopa	4013	100%	0%	0%	60.0	60.0	0.32
4013420501	Maricopa	4013	100%	0%	0%	60.0	60.0	0.75
4013420503	Maricopa	4013	100%	0%	0%	60.0	60.0	0.76
4013420504	Maricopa	4013	100%	0%	0%	60.0	60.0	0.28
4013420602	Maricopa	4013	100%	0%	0%	60.0	60.0	0.35
4013420603	Maricopa	4013	100%	0%	0%	60.0	60.0	0.44
4013420604	Maricopa	4013	100%	0%	0%	60.0	60.0	0.26
4013420704	Maricopa	4013	100%	0%	0%	60.0	60.0	0.52
4013420705	Maricopa	4013	100%	0%	0%	60.1	60.1	0.11
4013420706	Maricopa	4013	100%	0%	0%	60.0	60.0	0.28
4013420707	Maricopa	4013	100%	0%	0%	60.0	60.0	0.60
4013420708	Maricopa	4013	100%	0%	0%	60.0	60.0	0.47
4013420709	Maricopa	4013	100%	0%	0%	60.0	60.0	0.67

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4013420710	Maricopa	4013	100%	0%	0%	60.0	60.0	0.77
4013420800	Maricopa	4013	100%	0%	0%	60.0	60.0	0.64
4013420901	Maricopa	4013	100%	0%	0%	60.0	60.0	0.89
4013420902	Maricopa	4013	100%	0%	0%	60.0	60.0	0.69
4013421001	Maricopa	4013	100%	0%	0%	60.0	60.0	0.86
4013421002	Maricopa	4013	100%	0%	0%	60.0	60.0	0.76
4013421101	Maricopa	4013	100%	0%	0%	60.0	60.0	0.73
4013421102	Maricopa	4013	100%	0%	0%	60.0	60.0	0.72
4013421201	Maricopa	4013	100%	0%	0%	60.0	60.0	0.35
4013421202	Maricopa	4013	100%	0%	0%	60.0	60.0	0.61
4013421302	Maricopa	4013	100%	0%	0%	60.0	60.0	0.87
4013421303	Maricopa	4013	100%	0%	0%	60.0	60.0	0.79
4013421304	Maricopa	4013	100%	0%	0%	60.0	60.0	0.55
4013421400	Maricopa	4013	100%	0%	0%	60.0	60.0	0.81
4013421501	Maricopa	4013	100%	0%	0%	60.0	60.0	0.92
4013421502	Maricopa	4013	100%	0%	0%	60.0	60.0	0.85
4013421601	Maricopa	4013	100%	0%	0%	60.0	60.0	0.80
4013421602	Maricopa	4013	100%	0%	0%	60.0	60.0	0.89
4013421701	Maricopa	4013	100%	0%	0%	60.0	60.0	0.68
4013421702	Maricopa	4013	100%	0%	0%	60.0	60.0	0.86
4013421801	Maricopa	4013	100%	0%	0%	60.0	60.0	0.71
4013421802	Maricopa	4013	100%	0%	0%	60.0	60.0	0.83
4013421901	Maricopa	4013	100%	0%	0%	60.0	60.0	0.63
4013421902	Maricopa	4013	100%	0%	0%	60.0	60.0	0.91
4013422001	Maricopa	4013	100%	0%	0%	60.0	60.0	0.87
4013422002	Maricopa	4013	100%	0%	0%	60.0	60.0	0.93
4013422102	Maricopa	4013	100%	0%	0%	60.0	60.0	0.92
4013422103	Maricopa	4013	100%	0%	0%	60.0	60.0	0.74
4013422104	Maricopa	4013	100%	0%	0%	60.0	60.0	0.80
4013422105	Maricopa	4013	100%	0%	0%	60.0	60.0	0.71
4013422106	Maricopa	4013	100%	0%	0%	60.0	60.0	0.84
4013422107	Maricopa	4013	100%	0%	0%	60.0	60.0	0.61
4013422203	Maricopa	4013	100%	0%	0%	60.0	60.0	0.69
4013422204	Maricopa	4013	100%	0%	0%	60.0	60.0	0.37
4013422205	Maricopa	4013	100%	0%	0%	60.0	60.0	0.03
4013422209	Maricopa	4013	100%	0%	0%	58.0	58.0	0.49
4013422210	Maricopa	4013	100%	0%	0%	58.0	58.0	0.29
4013422211	Maricopa	4013	100%	0%	0%	58.0	58.0	0.23
4013422212	Maricopa	4013	100%	0%	0%	59.8	59.8	0.18
4013422213	Maricopa	4013	100%	0%	0%	59.4	59.4	0.27
4013422215	Maricopa	4013	100%	0%	0%	59.9	59.9	0.43
4013422216	Maricopa	4013	100%	0%	0%	60.0	60.0	0.33
4013422217	Maricopa	4013	100%	0%	0%	60.0	60.0	0.34
4013422218	Maricopa	4013	100%	0%	0%	58.1	58.1	0.41
4013422219	Maricopa	4013	100%	0%	0%	58.1	58.1	0.42
4013422220	Maricopa	4013	100%	0%	0%	58.4	58.4	0.17
4013422221	Maricopa	4013	100%	0%	0%	60.0	60.0	0.31
4013422222	Maricopa	4013	100%	0%	0%	60.0	60.0	0.36

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4013422301	Maricopa	4013	100%	0%	0%	60.0	60.0	0.89
4013422302	Maricopa	4013	100%	0%	0%	60.0	60.0	0.53
4013422304	Maricopa	4013	100%	0%	0%	58.4	58.4	0.38
4013422305	Maricopa	4013	100%	0%	0%	58.0	58.0	0.14
4013422307	Maricopa	4013	100%	0%	0%	59.6	59.6	0.35
4013422308	Maricopa	4013	100%	0%	0%	60.0	60.0	0.36
4013422309	Maricopa	4013	100%	0%	0%	59.1	59.1	0.19
4013422401	Maricopa	4013	100%	0%	0%	59.0	59.0	0.41
4013422402	Maricopa	4013	100%	0%	0%	59.2	59.2	0.53
4013422403	Maricopa	4013	100%	0%	0%	58.0	58.0	0.30
4013422404	Maricopa	4013	100%	0%	0%	58.0	58.0	0.10
4013422501	Maricopa	4013	100%	0%	0%	60.0	60.0	0.50
4013422502	Maricopa	4013	100%	0%	0%	60.0	60.0	0.58
4013422503	Maricopa	4013	100%	0%	0%	60.0	60.0	0.69
4013422504	Maricopa	4013	100%	0%	0%	60.0	60.0	0.38
4013422506	Maricopa	4013	100%	0%	0%	60.0	60.0	0.25
4013422507	Maricopa	4013	100%	0%	0%	60.0	60.0	0.17
4013422508	Maricopa	4013	100%	0%	0%	60.0	60.0	0.28
4013422509	Maricopa	4013	100%	0%	0%	59.2	59.2	0.29
4013422510	Maricopa	4013	100%	0%	0%	59.7	59.7	0.17
4013422511	Maricopa	4013	100%	0%	0%	58.0	58.0	0.10
4013422512	Maricopa	4013	100%	0%	0%	58.0	58.0	0.16
4013422513	Maricopa	4013	100%	0%	0%	60.0	60.0	0.24
4013422514	Maricopa	4013	100%	0%	0%	60.0	60.0	0.18
4013422606	Maricopa	4013	100%	0%	0%	58.8	58.8	0.14
4013422607	Maricopa	4013	100%	0%	0%	60.0	60.0	0.51
4013422609	Maricopa	4013	100%	0%	0%	61.0	61.0	0.61
4013422610	Maricopa	4013	100%	0%	0%	61.0	61.0	0.35
4013422615	Maricopa	4013	100%	0%	0%	61.0	61.0	0.22
4013422616	Maricopa	4013	100%	0%	0%	58.1	58.1	0.42
4013422617	Maricopa	4013	100%	0%	0%	61.0	61.0	0.25
4013422618	Maricopa	4013	100%	0%	0%	61.0	61.0	0.15
4013422620	Maricopa	4013	100%	0%	0%	60.0	60.0	0.09
4013422621	Maricopa	4013	100%	0%	0%	60.0	60.0	0.29
4013422622	Maricopa	4013	100%	0%	0%	60.3	60.3	0.21
4013422623	Maricopa	4013	100%	0%	0%	58.4	58.4	0.42
4013422624	Maricopa	4013	100%	0%	0%	60.0	60.0	0.38
4013422625	Maricopa	4013	100%	0%	0%	61.0	61.0	0.68
4013422626	Maricopa	4013	100%	0%	0%	61.0	61.0	0.71
4013422627	Maricopa	4013	100%	0%	0%	61.0	61.0	0.69
4013422628	Maricopa	4013	100%	0%	0%	61.0	61.0	0.95
4013422629	Maricopa	4013	100%	0%	0%	61.0	61.0	0.29
4013422630	Maricopa	4013	100%	0%	0%	61.0	61.0	0.67
4013422631	Maricopa	4013	100%	0%	0%	61.0	61.0	0.42
4013422632	Maricopa	4013	100%	0%	0%	61.0	61.0	0.58
4013422633	Maricopa	4013	100%	0%	0%	61.0	61.0	0.45
4013422634	Maricopa	4013	100%	0%	0%	61.0	61.0	0.67
4013422635	Maricopa	4013	100%	0%	0%	61.0	61.0	0.25

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4013422636	Maricopa	4013	100%	0%	0%	60.0	60.0	0.22
4013422637	Maricopa	4013	100%	0%	0%	60.0	60.0	0.23
4013422638	Maricopa	4013	100%	0%	0%	60.1	60.1	0.56
4013422639	Maricopa	4013	100%	0%	0%	61.0	61.0	0.23
4013422640	Maricopa	4013	100%	0%	0%	61.0	61.0	0.37
4013422641	Maricopa	4013	100%	0%	0%	60.7	60.7	0.31
4013422642	Maricopa	4013	100%	0%	0%	61.0	61.0	0.31
4013422643	Maricopa	4013	100%	0%	0%	40.7	40.6	0.19
4013422644	Maricopa	4013	100%	0%	0%	32.7	32.6	0.18
4013422646	Maricopa	4013	100%	0%	0%	4.0	3.9	0.09
4013522800	Maricopa	4013	100%	0%	0%	4.1	4.0	0.34
4013522901	Maricopa	4013	100%	0%	0%	58.0	58.0	0.57
4013522903	Maricopa	4013	100%	0%	0%	58.0	58.0	0.94
4013522904	Maricopa	4013	100%	0%	0%	58.0	58.0	0.83
4013523002	Maricopa	4013	100%	0%	0%	58.0	58.0	0.75
4013523003	Maricopa	4013	100%	0%	0%	58.0	58.0	0.60
4013523005	Maricopa	4013	100%	0%	0%	58.0	58.0	0.26
4013523006	Maricopa	4013	100%	0%	0%	58.0	58.0	0.44
4013523102	Maricopa	4013	100%	0%	0%	58.0	58.0	0.78
4013523103	Maricopa	4013	100%	0%	0%	58.0	58.0	0.59
4013523104	Maricopa	4013	100%	0%	0%	58.0	58.0	0.70
4013610000	Maricopa	4013	66%	0%	0%	58.6	40.8	0.27
4013610100	Maricopa	4013	73%	0%	0%	59.6	38.1	0.25
4013610200	Maricopa	4013	100%	0%	0%	53.3	51.1	0.09
4013610300	Maricopa	4013	100%	0%	0%	54.0	52.5	0.13
4013610400	Maricopa	4013	100%	0%	0%	53.7	51.7	0.04
4013610500	Maricopa	4013	100%	0%	0%	54.4	50.1	0.19
4013610600	Maricopa	4013	100%	0%	0%	52.9	49.4	0.25
4013610700	Maricopa	4013	69%	0%	0%	63.2	42.5	0.10
4013610800	Maricopa	4013	100%	0%	0%	43.5	43.1	0.05
4013610900	Maricopa	4013	100%	0%	0%	23.3	23.3	0.13
4013611000	Maricopa	4013	100%	0%	0%	42.9	42.9	0.06
4013611100	Maricopa	4013	100%	0%	0%	36.8	36.8	0.01
4013611200	Maricopa	4013	100%	0%	0%	56.0	56.0	0.09
4013611300	Maricopa	4013	100%	0%	0%	53.0	50.2	0.24
4013611400	Maricopa	4013	100%	0%	0%	55.7	55.7	0.00
4013611500	Maricopa	4013	100%	0%	0%	54.0	54.0	0.03
4013611600	Maricopa	4013	100%	0%	0%	54.0	53.9	0.05
4013611700	Maricopa	4013	100%	0%	0%	54.3	54.3	0.07
4013611800	Maricopa	4013	100%	0%	0%	54.0	54.0	0.02
4013611900	Maricopa	4013	100%	0%	0%	52.8	50.4	0.20
4013612000	Maricopa	4013	100%	0%	0%	54.9	51.1	0.00
4013612200	Maricopa	4013	100%	0%	0%	54.5	51.4	0.04
4013612300	Maricopa	4013	100%	0%	0%	55.2	54.8	0.35
4013612400	Maricopa	4013	100%	0%	0%	61.1	53.0	0.12
4013612500	Maricopa	4013	100%	0%	0%	62.0	48.3	0.05
4013612600	Maricopa	4013	100%	0%	0%	62.0	48.3	0.10
4013612700	Maricopa	4013	100%	0%	0%	62.0	48.3	0.03

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4013612800	Maricopa	4013	100%	0%	0%	62.0	48.3	0.07
4013612900	Maricopa	4013	100%	0%	0%	61.5	47.9	0.07
4013613000	Maricopa	4013	100%	0%	0%	62.0	48.3	0.03
4013613100	Maricopa	4013	100%	0%	0%	62.0	48.3	0.01
4013613200	Maricopa	4013	100%	0%	0%	58.0	45.3	0.06
4013613300	Maricopa	4013	100%	0%	0%	50.0	39.5	0.04
4013613400	Maricopa	4013	100%	0%	0%	4.0	4.0	0.27
4013613500	Maricopa	4013	100%	0%	0%	4.6	4.6	0.41
4013613600	Maricopa	4013	100%	0%	0%	44.7	44.7	0.49
4013613700	Maricopa	4013	100%	0%	0%	55.1	55.1	0.09
4013613800	Maricopa	4013	100%	0%	0%	55.2	55.2	0.05
4013613900	Maricopa	4013	100%	0%	0%	56.0	56.0	0.03
4013614000	Maricopa	4013	100%	0%	0%	56.0	56.0	0.10
4013614100	Maricopa	4013	100%	0%	0%	55.8	55.8	0.15
4013614200	Maricopa	4013	100%	0%	0%	55.3	55.3	0.13
4013614300	Maricopa	4013	100%	0%	0%	54.0	54.0	0.08
4013614400	Maricopa	4013	100%	0%	0%	54.0	54.0	0.50
4013614500	Maricopa	4013	100%	0%	0%	54.0	54.0	0.43
4013614600	Maricopa	4013	100%	0%	0%	54.0	54.0	0.51
4013614700	Maricopa	4013	100%	0%	0%	55.5	55.5	0.66
4013614800	Maricopa	4013	100%	0%	0%	54.0	54.0	0.32
4013614900	Maricopa	4013	100%	0%	0%	64.0	64.0	0.24
4013615000	Maricopa	4013	100%	0%	0%	48.9	39.3	0.35
4013615100	Maricopa	4013	100%	0%	0%	48.0	37.8	0.04
4013615200	Maricopa	4013	100%	0%	0%	48.1	38.1	0.08
4013615300	Maricopa	4013	100%	0%	0%	4.8	4.8	0.18
4013615400	Maricopa	4013	100%	0%	0%	35.6	35.6	0.33
4013615500	Maricopa	4013	100%	0%	0%	55.0	55.0	0.07
4013615600	Maricopa	4013	100%	0%	0%	55.4	55.4	0.11
4013615700	Maricopa	4013	100%	0%	0%	54.5	54.5	0.06
4013615800	Maricopa	4013	100%	0%	0%	54.0	54.0	0.22
4013615900	Maricopa	4013	100%	0%	0%	54.0	54.0	0.31
4013616000	Maricopa	4013	100%	0%	0%	54.0	54.0	0.32
4013616100	Maricopa	4013	100%	0%	0%	54.0	54.0	0.37
4013616200	Maricopa	4013	100%	0%	0%	54.0	54.0	0.23
4013616300	Maricopa	4013	100%	0%	0%	54.0	54.0	0.22
4013616400	Maricopa	4013	100%	0%	0%	54.0	54.0	0.50
4013616500	Maricopa	4013	100%	0%	0%	54.0	54.0	0.34
4013616600	Maricopa	4013	100%	0%	0%	54.5	54.5	0.37
4013616700	Maricopa	4013	100%	0%	0%	61.9	61.9	0.28
4013616800	Maricopa	4013	100%	0%	0%	64.0	64.0	0.42
4013616900	Maricopa	4013	100%	0%	0%	64.0	64.0	0.36
4013617000	Maricopa	4013	100%	0%	0%	64.0	64.0	0.60
4013617100	Maricopa	4013	100%	0%	0%	62.1	60.9	0.07
4013617200	Maricopa	4013	100%	0%	0%	62.8	62.8	0.05
4013617300	Maricopa	4013	100%	0%	0%	57.1	57.1	0.27
4013617400	Maricopa	4013	100%	0%	0%	19.8	19.8	0.41
4013617500	Maricopa	4013	100%	0%	0%	55.0	55.0	0.35

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4013617600	Maricopa	4013	100%	0%	0%	55.4	55.4	0.58
4013617700	Maricopa	4013	100%	0%	0%	54.4	54.4	0.38
4013617800	Maricopa	4013	100%	0%	0%	54.0	54.0	0.26
4013617900	Maricopa	4013	100%	0%	0%	54.0	54.0	0.46
4013618000	Maricopa	4013	100%	0%	0%	54.0	54.0	0.19
4013618100	Maricopa	4013	100%	0%	0%	54.0	54.0	0.18
4013618200	Maricopa	4013	100%	0%	0%	54.0	54.0	0.52
4013618300	Maricopa	4013	100%	0%	0%	54.0	54.0	0.26
4013618400	Maricopa	4013	100%	0%	0%	54.0	54.0	0.45
4013618500	Maricopa	4013	100%	0%	0%	54.0	54.0	0.61
4013618600	Maricopa	4013	100%	0%	0%	54.2	54.2	0.66
4013618700	Maricopa	4013	100%	0%	0%	58.3	58.3	0.34
4013618800	Maricopa	4013	100%	0%	0%	63.0	63.0	0.78
4013618900	Maricopa	4013	100%	0%	0%	64.0	64.0	0.63
4013619000	Maricopa	4013	100%	0%	0%	64.0	64.0	0.30
4013619100	Maricopa	4013	100%	0%	0%	64.0	64.0	0.74
4013619200	Maricopa	4013	100%	0%	0%	64.0	64.0	0.77
4013619300	Maricopa	4013	100%	0%	0%	64.0	64.0	0.66
4013619400	Maricopa	4013	100%	0%	0%	64.0	64.0	0.64
4013619500	Maricopa	4013	100%	0%	0%	63.8	63.8	0.59
4013619600	Maricopa	4013	100%	0%	0%	59.6	59.6	0.12
4013619700	Maricopa	4013	100%	0%	0%	57.0	57.0	0.43
4013619800	Maricopa	4013	100%	0%	0%	57.0	57.0	0.37
4013619900	Maricopa	4013	100%	0%	0%	56.6	56.3	0.10
4013723303	Maricopa	4013	100%	0%	0%	6.5	6.5	0.00
4013723304	Maricopa	4013	100%	0%	0%	5.7	5.7	0.58
4013723305	Maricopa	4013	100%	0%	0%	15.3	15.3	0.87
4013723306	Maricopa	4013	99%	0%	0%	8.1	8.0	0.59
4013723307	Maricopa	4013	100%	0%	0%	6.4	6.4	0.01
4013723308	Maricopa	4013	100%	0%	0%	7.7	7.7	0.13
4013810000	Maricopa	4013	100%	0%	0%	58.0	58.0	0.09
4013810100	Maricopa	4013	100%	0%	0%	58.0	58.0	0.07
4013810200	Maricopa	4013	100%	0%	0%	58.0	58.0	0.26
4013810300	Maricopa	4013	100%	0%	0%	58.0	58.0	0.41
4013810400	Maricopa	4013	100%	0%	0%	58.0	58.0	0.39
4013810500	Maricopa	4013	100%	0%	0%	58.0	58.0	0.19
4013810600	Maricopa	4013	100%	0%	0%	58.0	58.0	0.12
4013810700	Maricopa	4013	100%	0%	0%	58.0	58.0	0.37
4013810800	Maricopa	4013	100%	0%	0%	58.0	58.0	0.17
4013810900	Maricopa	4013	100%	0%	0%	56.7	56.7	0.22
4013811000	Maricopa	4013	100%	0%	0%	55.7	55.7	0.02
4013811100	Maricopa	4013	100%	0%	0%	55.6	55.6	0.19
4013811200	Maricopa	4013	100%	0%	0%	53.7	53.7	0.32
4013811300	Maricopa	4013	100%	0%	0%	58.0	58.0	0.14
4013811400	Maricopa	4013	100%	0%	0%	58.0	58.0	0.16
4013811500	Maricopa	4013	100%	0%	0%	58.0	58.0	0.12
4013811600	Maricopa	4013	100%	0%	0%	58.0	58.0	0.36
4013811700	Maricopa	4013	100%	0%	0%	58.0	58.0	0.51

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GEOID	County	County ID	Likelihood of Vegetative Change	Timber Vegetation Type (ERU)	Timber Vegetation Exposure	Watershed Importance	Watershed Importance Exposure	Social Vulnerability Index Rank
4013811800	Maricopa	4013	100%	0%	0%	10.8	10.8	0.12
4013811900	Maricopa	4013	100%	0%	0%	18.2	18.2	0.08
4013812000	Maricopa	4013	100%	0%	0%	15.7	15.7	0.55
4013812100	Maricopa	4013	100%	0%	0%	53.2	53.2	0.19
4013812200	Maricopa	4013	100%	0%	0%	4.0	4.0	0.26
4013812300	Maricopa	4013	100%	0%	0%	4.0	4.0	0.17
4013812400	Maricopa	4013	100%	0%	0%	4.8	4.8	0.24
4013812500	Maricopa	4013	100%	0%	0%	4.0	4.0	0.16
4013812600	Maricopa	4013	100%	0%	0%	4.0	4.0	0.08
4013812700	Maricopa	4013	100%	0%	0%	4.0	4.0	0.20
4013812800	Maricopa	4013	100%	0%	0%	4.0	4.0	0.27
4013812900	Maricopa	4013	100%	0%	0%	4.0	4.0	0.21
4013813000	Maricopa	4013	100%	0%	0%	4.0	4.0	0.23
4013813100	Maricopa	4013	100%	0%	0%	4.0	4.0	0.05
4013813200	Maricopa	4013	100%	0%	0%	4.0	4.0	0.03
4013813300	Maricopa	4013	100%	0%	0%	4.0	4.0	0.12
4013813400	Maricopa	4013	100%	0%	0%	4.0	4.0	0.12
4013813500	Maricopa	4013	100%	0%	0%	4.0	4.0	0.15
4013813600	Maricopa	4013	100%	0%	0%	4.0	4.0	0.13
4013813700	Maricopa	4013	100%	0%	0%	4.0	4.0	0.10
4013813800	Maricopa	4013	100%	0%	0%	4.0	4.0	0.26
4013813900	Maricopa	4013	100%	0%	0%	4.0	4.0	0.10
4013814000	Maricopa	4013	100%	0%	0%	4.0	4.0	0.02
4013814100	Maricopa	4013	100%	0%	0%	3.9	3.9	0.13
4013814200	Maricopa	4013	100%	0%	0%	58.0	58.0	0.02
4013814300	Maricopa	4013	100%	0%	0%	58.0	58.0	0.06
4013814400	Maricopa	4013	100%	0%	0%	58.0	58.0	0.21
4013814500	Maricopa	4013	100%	0%	0%	58.0	58.0	0.23
4013814600	Maricopa	4013	100%	0%	0%	58.0	58.0	0.25
4013814700	Maricopa	4013	100%	0%	0%	58.0	58.0	0.16
4013814800	Maricopa	4013	100%	0%	0%	58.0	58.0	0.06
4013814900	Maricopa	4013	100%	0%	0%	58.0	58.0	0.01
4013815000	Maricopa	4013	100%	0%	0%	58.0	58.0	0.15
4013815100	Maricopa	4013	100%	0%	0%	58.0	58.0	0.12
4013815200	Maricopa	4013	100%	0%	0%	57.0	57.0	0.30
4013815300	Maricopa	4013	100%	0%	0%	49.1	49.1	0.02
4013815400	Maricopa	4013	100%	0%	0%	38.0	38.0	0.12
4013815500	Maricopa	4013	100%	0%	0%	58.0	58.0	0.22
4013815600	Maricopa	4013	100%	0%	0%	46.1	46.1	0.06
4013815700	Maricopa	4013	100%	0%	0%	45.0	45.0	0.16
4013815800	Maricopa	4013	100%	0%	0%	4.7	4.6	0.14
4013815900	Maricopa	4013	100%	0%	0%	4.0	4.0	0.11
4013816000	Maricopa	4013	100%	0%	0%	3.6	3.6	0.07
4013816100	Maricopa	4013	100%	0%	0%	4.0	3.9	0.14
4013816200	Maricopa	4013	100%	0%	0%	4.0	3.9	0.29
4013816300	Maricopa	4013	100%	0%	0%	3.1	3.0	0.07
4013816400	Maricopa	4013	100%	0%	0%	3.0	3.0	0.06
4013816500	Maricopa	4013	100%	0%	0%	3.0	3.0	0.13

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4013816600	Maricopa	4013	100%	0%	0%	4.0	3.9	0.02
4013816700	Maricopa	4013	100%	0%	0%	3.2	3.1	0.20
4013816800	Maricopa	4013	100%	0%	0%	3.3	3.2	0.07
4013816900	Maricopa	4013	100%	0%	0%	3.6	3.6	0.13
4013817000	Maricopa	4013	100%	0%	0%	3.0	3.0	0.02
4013817100	Maricopa	4013	100%	0%	0%	3.0	3.0	0.27
4013817200	Maricopa	4013	100%	0%	0%	2.8	2.8	0.22
4013817300	Maricopa	4013	100%	0%	0%	4.0	4.0	0.11
4013817400	Maricopa	4013	100%	0%	0%	4.0	4.0	0.27
4013817500	Maricopa	4013	100%	0%	0%	4.0	4.0	0.03
4013817600	Maricopa	4013	100%	0%	0%	11.8	11.8	0.47
4013940700	Maricopa	4013	91%	0%	0%	31.5	28.8	0.76
4013941000	Maricopa	4013	99%	0%	0%	4.5	4.5	0.93
4013941100	Maricopa	4013	100%	0%	0%	5.1	5.1	-999.00
4013941200	Maricopa	4013	100%	0%	0%	58.5	51.9	0.84
4013941300	Maricopa	4013	100%	0%	0%	56.4	56.1	0.75
4013980100	Maricopa	4013	99%	0%	0%	14.5	14.3	-999.00
4013980400	Maricopa	4013	100%	0%	0%	55.3	55.3	-999.00
4013980500	Maricopa	4013	100%	0%	0%	4.0	4.0	-999.00
4013980600	Maricopa	4013	100%	0%	0%	4.1	4.0	0.00
4013980700	Maricopa	4013	97%	0%	0%	57.6	48.4	-999.00
4015940400	Mohave	4015	56%	0%	100%	12.2	6.6	0.92
4015940501	Mohave	4015	100%	0%	0%	15.2	15.0	0.44
4015950100	Mohave	4015	76%	2%	99%	8.5	5.9	0.73
4015950401	Mohave	4015	59%	0%	0%	5.1	3.8	0.56
4015950402	Mohave	4015	76%	0%	100%	12.1	10.2	0.39
4015950500	Mohave	4015	73%	0%	0%	14.7	13.3	0.51
4015950600	Mohave	4015	73%	0%	0%	7.6	5.2	0.56
4015950703	Mohave	4015	0%	0%	0%	0.0	0.0	0.64
4015950704	Mohave	4015	22%	0%	0%	0.0	0.0	0.48
4015950705	Mohave	4015	0%	0%	0%	0.0	0.0	0.76
4015950706	Mohave	4015	0%	0%	0%	0.0	0.0	0.75
4015951401	Mohave	4015	100%	0%	0%	32.0	30.9	0.53
4015951402	Mohave	4015	100%	0%	0%	25.1	23.3	0.64
4015951501	Mohave	4015	100%	0%	0%	15.0	14.9	0.67
4015951502	Mohave	4015	100%	0%	0%	15.0	15.0	0.55
4015951601	Mohave	4015	100%	0%	0%	15.0	15.0	0.79
4015951602	Mohave	4015	100%	0%	0%	15.0	15.0	0.72
4015951700	Mohave	4015	100%	0%	0%	15.0	15.0	0.92
4015951800	Mohave	4015	100%	0%	0%	15.0	15.0	0.80
4015951900	Mohave	4015	100%	0%	0%	15.0	15.0	0.63
4015952001	Mohave	4015	100%	0%	0%	15.0	15.0	0.22
4015952002	Mohave	4015	100%	0%	0%	15.8	15.4	0.41
4015952003	Mohave	4015	100%	0%	0%	15.0	14.9	0.62
4015952004	Mohave	4015	100%	0%	0%	15.0	14.8	0.65
4015952400	Mohave	4015	97%	0%	0%	18.8	18.3	0.65
4015952500	Mohave	4015	100%	0%	0%	20.9	19.5	0.48
4015952600	Mohave	4015	100%	0%	0%	22.0	22.0	0.69

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4015952700	Mohave	4015	100%	0%	0%	22.0	22.0	0.52
4015952800	Mohave	4015	100%	0%	0%	22.0	22.0	0.15
4015952900	Mohave	4015	100%	0%	0%	22.0	21.9	0.52
4015953000	Mohave	4015	100%	0%	0%	22.0	22.0	0.42
4015953100	Mohave	4015	100%	0%	0%	22.0	21.9	0.51
4015953200	Mohave	4015	100%	0%	0%	22.0	21.9	0.32
4015953300	Mohave	4015	100%	0%	0%	22.0	21.9	0.21
4015953401	Mohave	4015	100%	0%	0%	22.0	21.9	0.48
4015953402	Mohave	4015	97%	0%	0%	22.1	21.0	0.55
4015953601	Mohave	4015	0%	0%	0%	1.4	0.5	0.40
4015953602	Mohave	4015	1%	0%	0%	8.1	2.2	0.82
4015953800	Mohave	4015	0%	0%	0%	1.6	0.3	0.78
4015953900	Mohave	4015	0%	0%	0%	0.0	0.0	0.68
4015954800	Mohave	4015	52%	0%	95%	14.8	7.5	0.75
4015954900	Mohave	4015	7%	0%	0%	0.8	0.1	0.70
4015955000	Mohave	4015	100%	0%	0%	16.2	16.2	0.64
4017940008	Navajo	4017	77%	0%	100%	0.0	0.0	0.93
4017940010	Navajo	4017	49%	0%	0%	0.0	0.0	0.96
4017940011	Navajo	4017	52%	0%	0%	0.0	0.0	0.99
4017940012	Navajo	4017	79%	0%	0%	0.0	0.0	0.80
4017940013	Navajo	4017	76%	0%	0%	0.0	0.0	0.85
4017940014	Navajo	4017	85%	0%	0%	0.0	0.0	0.93
4017940015	Navajo	4017	85%	0%	0%	0.0	0.0	0.97
4017940100	Navajo	4017	58%	43%	97%	50.4	27.5	0.91
4017940301	Navajo	4017	29%	6%	100%	47.7	18.7	0.96
4017940302	Navajo	4017	64%	16%	99%	52.7	29.8	0.90
4017942300	Navajo	4017	86%	0%	100%	4.3	3.9	0.88
4017942400	Navajo	4017	82%	1%	100%	1.7	1.5	0.91
4017942500	Navajo	4017	50%	0%	100%	0.5	0.4	0.93
4017960100	Navajo	4017	89%	0%	0%	0.0	0.0	0.81
4017960200	Navajo	4017	98%	0%	0%	0.0	0.0	0.76
4017960400	Navajo	4017	94%	0%	0%	0.0	0.0	0.76
4017960500	Navajo	4017	93%	0%	100%	0.3	0.2	0.92
4017960600	Navajo	4017	86%	0%	0%	0.0	0.0	0.95
4017961300	Navajo	4017	87%	80%	100%	9.2	6.1	0.56
4017961700	Navajo	4017	89%	77%	100%	6.6	4.8	0.70
4017962500	Navajo	4017	84%	90%	94%	10.3	6.1	0.62
4017963300	Navajo	4017	97%	0%	100%	0.1	0.1	0.61
4017963400	Navajo	4017	98%	0%	0%	0.0	0.0	0.48
4017963700	Navajo	4017	84%	84%	100%	4.1	3.1	0.36
4017963800	Navajo	4017	92%	0%	100%	0.4	0.3	0.47
4017964201	Navajo	4017	89%	89%	100%	6.4	5.5	0.61
4017964202	Navajo	4017	76%	54%	93%	5.4	4.1	0.75
4017964800	Navajo	4017	90%	68%	100%	2.2	1.9	0.37
4017964900	Navajo	4017	53%	95%	56%	10.7	6.4	0.09
4017965200	Navajo	4017	40%	29%	100%	5.5	4.2	0.68
4017965300	Navajo	4017	51%	23%	83%	4.1	1.8	0.60
4019000100	Pima	4019	9%	0%	0%	2.0	0.7	0.54

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4019000200	Pima	4019	99%	0%	0%	2.0	0.7	0.95
4019000300	Pima	4019	97%	0%	0%	2.0	0.7	0.70
4019000400	Pima	4019	27%	0%	0%	2.0	0.7	0.40
4019000500	Pima	4019	0%	0%	0%	2.0	0.7	0.52
4019000600	Pima	4019	0%	0%	0%	2.0	0.7	0.26
4019000700	Pima	4019	0%	0%	0%	2.0	0.7	0.69
4019000800	Pima	4019	0%	0%	0%	2.0	0.7	0.71
4019000900	Pima	4019	0%	0%	0%	2.0	0.7	0.78
4019001000	Pima	4019	45%	0%	0%	2.0	0.7	0.80
4019001100	Pima	4019	100%	0%	0%	2.0	0.7	0.87
4019001200	Pima	4019	100%	0%	0%	2.0	0.7	0.99
4019001302	Pima	4019	98%	0%	0%	2.0	0.7	0.82
4019001303	Pima	4019	100%	0%	0%	2.0	0.7	0.92
4019001304	Pima	4019	91%	0%	0%	2.0	0.7	0.93
4019001400	Pima	4019	29%	0%	0%	2.0	0.7	0.64
4019001500	Pima	4019	3%	0%	0%	2.0	0.7	0.32
4019001600	Pima	4019	0%	0%	0%	2.0	0.7	0.44
4019001700	Pima	4019	0%	0%	0%	3.3	0.5	0.33
4019001801	Pima	4019	0%	0%	0%	3.0	0.5	0.83
4019001802	Pima	4019	0%	0%	0%	2.0	0.7	0.57
4019001900	Pima	4019	0%	0%	0%	2.0	0.7	0.39
4019002000	Pima	4019	0%	0%	0%	2.0	0.7	0.73
4019002100	Pima	4019	0%	0%	0%	2.0	0.4	0.84
4019002201	Pima	4019	0%	0%	0%	1.9	0.0	0.99
4019002202	Pima	4019	0%	0%	0%	2.0	0.6	0.98
4019002300	Pima	4019	0%	0%	0%	2.0	0.4	1.00
4019002400	Pima	4019	0%	0%	0%	1.4	0.0	0.98
4019002501	Pima	4019	17%	0%	0%	1.4	0.1	0.94
4019002503	Pima	4019	0%	0%	0%	2.4	0.8	0.89
4019002504	Pima	4019	0%	0%	0%	2.6	1.0	0.92
4019002505	Pima	4019	0%	0%	0%	2.3	0.8	0.92
4019002506	Pima	4019	0%	0%	0%	2.1	0.6	0.83
4019002602	Pima	4019	97%	0%	0%	3.8	1.6	0.77
4019002603	Pima	4019	100%	0%	0%	2.7	1.2	1.00
4019002604	Pima	4019	100%	0%	0%	2.3	0.9	0.99
4019002702	Pima	4019	32%	0%	0%	3.6	0.4	0.38
4019002703	Pima	4019	56%	0%	0%	2.5	0.6	0.54
4019002704	Pima	4019	99%	0%	0%	4.0	0.4	0.46
4019002801	Pima	4019	0%	0%	0%	4.0	0.4	0.90
4019002802	Pima	4019	0%	0%	0%	4.0	0.4	0.88
4019002803	Pima	4019	0%	0%	0%	3.6	0.4	0.58
4019002901	Pima	4019	0%	0%	0%	4.0	0.4	0.84
4019002904	Pima	4019	0%	0%	0%	4.0	0.4	0.60
4019002905	Pima	4019	0%	0%	0%	4.0	0.4	0.76
4019002906	Pima	4019	0%	0%	0%	4.0	0.4	0.20
4019003002	Pima	4019	0%	0%	0%	4.0	0.4	0.80
4019003003	Pima	4019	0%	0%	0%	3.6	0.3	0.79
4019003004	Pima	4019	0%	0%	0%	3.9	0.3	0.46

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4019003101	Pima	4019	0%	0%	0%	3.7	0.4	0.81
4019003102	Pima	4019	0%	0%	0%	4.0	0.4	0.76
4019003200	Pima	4019	0%	0%	0%	3.8	0.4	0.68
4019003302	Pima	4019	0%	0%	0%	3.7	0.3	0.41
4019003303	Pima	4019	0%	0%	0%	4.0	0.4	0.74
4019003304	Pima	4019	0%	0%	0%	4.0	0.4	0.68
4019003400	Pima	4019	0%	0%	0%	2.5	0.6	0.60
4019003501	Pima	4019	0%	0%	0%	2.0	0.7	0.91
4019003502	Pima	4019	0%	0%	0%	3.1	0.5	0.83
4019003503	Pima	4019	0%	0%	0%	2.9	0.3	0.87
4019003504	Pima	4019	0%	0%	0%	3.3	0.2	0.72
4019003600	Pima	4019	0%	0%	0%	2.4	0.1	0.66
4019003702	Pima	4019	0%	0%	0%	2.7	0.1	1.00
4019003704	Pima	4019	0%	0%	0%	2.1	0.1	0.88
4019003705	Pima	4019	0%	0%	0%	1.0	0.0	0.96
4019003706	Pima	4019	0%	0%	0%	1.0	0.0	0.93
4019003707	Pima	4019	0%	0%	0%	1.0	0.0	0.94
4019003801	Pima	4019	0%	0%	0%	1.0	0.0	0.93
4019003802	Pima	4019	0%	0%	0%	1.6	0.0	0.97
4019003901	Pima	4019	0%	0%	0%	2.0	0.1	0.77
4019003902	Pima	4019	0%	0%	0%	1.1	0.0	0.88
4019003903	Pima	4019	0%	0%	0%	1.0	0.0	0.78
4019004008	Pima	4019	0%	0%	0%	4.0	0.4	0.58
4019004010	Pima	4019	0%	0%	0%	3.0	0.2	0.62
4019004011	Pima	4019	0%	0%	0%	3.2	0.2	0.79
4019004022	Pima	4019	0%	0%	0%	5.1	0.8	0.39
4019004025	Pima	4019	0%	0%	0%	23.9	7.0	0.19
4019004026	Pima	4019	0%	0%	0%	6.3	1.3	0.11
4019004029	Pima	4019	0%	0%	0%	3.2	0.2	0.69
4019004030	Pima	4019	0%	0%	0%	8.1	1.6	0.09
4019004031	Pima	4019	0%	0%	0%	9.0	1.9	0.25
4019004032	Pima	4019	0%	0%	0%	6.9	1.3	0.51
4019004033	Pima	4019	0%	0%	0%	3.3	0.2	0.77
4019004034	Pima	4019	0%	0%	0%	2.8	0.2	0.82
4019004035	Pima	4019	0%	0%	0%	3.0	0.1	0.66
4019004036	Pima	4019	0%	0%	0%	3.0	0.1	0.65
4019004037	Pima	4019	0%	0%	0%	3.7	0.3	0.64
4019004038	Pima	4019	0%	0%	0%	3.8	0.3	0.60
4019004039	Pima	4019	0%	0%	0%	3.3	0.3	0.75
4019004042	Pima	4019	0%	0%	0%	8.0	2.0	0.33
4019004043	Pima	4019	0%	0%	0%	8.3	2.0	0.23
4019004044	Pima	4019	0%	0%	0%	8.0	2.0	0.23
4019004046	Pima	4019	0%	0%	0%	9.0	1.9	0.48
4019004047	Pima	4019	0%	0%	0%	9.0	1.9	0.19
4019004048	Pima	4019	0%	0%	0%	9.0	1.9	0.36
4019004049	Pima	4019	0%	0%	0%	9.0	1.9	0.40
4019004050	Pima	4019	0%	0%	0%	19.3	7.0	0.17
4019004051	Pima	4019	1%	0%	0%	9.5	4.5	0.11

Arizona Census Tract

GEOID	County	County ID	Likelihood of Vegetative Change	Timber Vegetation Type (ERU)	Timber Vegetation Exposure	Watershed Importance	Watershed Importance Exposure	Social Vulnerability Index Rank
4019004052	Pima	4019	63%	1%	98%	9.0	4.1	0.14
4019004053	Pima	4019	0%	0%	0%	37.2	11.5	0.21
4019004054	Pima	4019	0%	0%	0%	38.0	11.8	0.03
4019004055	Pima	4019	0%	0%	0%	14.1	3.8	0.26
4019004056	Pima	4019	0%	0%	0%	3.0	0.2	0.56
4019004057	Pima	4019	0%	0%	0%	3.0	0.2	0.32
4019004058	Pima	4019	0%	0%	0%	3.0	0.1	0.56
4019004061	Pima	4019	69%	1%	98%	5.4	3.5	0.30
4019004062	Pima	4019	13%	0%	0%	3.1	0.3	0.27
4019004063	Pima	4019	1%	0%	0%	3.1	0.3	0.06
4019004064	Pima	4019	10%	0%	0%	4.1	1.2	0.20
4019004065	Pima	4019	2%	0%	0%	2.0	0.0	0.04
4019004066	Pima	4019	25%	0%	0%	2.0	0.0	0.11
4019004067	Pima	4019	0%	0%	0%	3.1	0.2	0.39
4019004068	Pima	4019	0%	0%	0%	3.3	0.3	0.57
4019004069	Pima	4019	0%	0%	0%	3.2	0.3	0.54
4019004070	Pima	4019	0%	0%	0%	6.6	1.2	0.75
4019004071	Pima	4019	0%	0%	0%	6.5	1.2	0.65
4019004072	Pima	4019	0%	0%	0%	9.0	1.9	0.63
4019004073	Pima	4019	0%	0%	0%	2.1	0.0	0.14
4019004074	Pima	4019	11%	0%	0%	2.4	0.1	0.05
4019004107	Pima	4019	85%	0%	100%	6.9	5.5	0.41
4019004109	Pima	4019	82%	0%	0%	5.6	4.7	0.24
4019004110	Pima	4019	0%	0%	0%	1.4	0.0	0.55
4019004112	Pima	4019	0%	0%	0%	2.0	0.0	0.85
4019004113	Pima	4019	0%	0%	0%	3.0	0.2	-999.00
4019004114	Pima	4019	1%	0%	0%	4.4	2.0	0.96
4019004115	Pima	4019	0%	0%	0%	1.3	0.0	0.97
4019004116	Pima	4019	0%	0%	0%	1.8	0.0	0.94
4019004117	Pima	4019	0%	0%	0%	1.9	0.0	0.88
4019004118	Pima	4019	0%	0%	0%	2.0	0.0	0.55
4019004119	Pima	4019	81%	0%	0%	6.2	5.1	0.36
4019004120	Pima	4019	90%	0%	0%	5.3	4.5	0.22
4019004121	Pima	4019	0%	0%	0%	2.2	0.1	0.66
4019004122	Pima	4019	0%	0%	0%	1.2	0.0	0.89
4019004125	Pima	4019	0%	0%	0%	2.9	0.1	0.48
4019004307	Pima	4019	91%	0%	0%	3.7	3.0	0.30
4019004310	Pima	4019	17%	0%	0%	3.0	1.5	0.62
4019004311	Pima	4019	43%	0%	0%	3.0	2.0	0.64
4019004312	Pima	4019	0%	0%	0%	3.0	1.2	0.85
4019004313	Pima	4019	100%	0%	0%	2.4	2.4	0.62
4019004316	Pima	4019	96%	0%	0%	4.7	4.4	0.63
4019004317	Pima	4019	94%	0%	0%	3.7	3.0	0.45
4019004320	Pima	4019	61%	0%	0%	3.0	2.3	0.93
4019004321	Pima	4019	0%	0%	0%	3.0	1.2	0.70
4019004322	Pima	4019	0%	0%	0%	3.0	1.2	0.68
4019004323	Pima	4019	0%	0%	0%	4.0	1.6	0.30
4019004324	Pima	4019	97%	0%	0%	3.8	3.4	0.11

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4019004325	Pima	4019	79%	0%	0%	4.0	3.3	0.06
4019004326	Pima	4019	46%	0%	0%	4.0	2.8	0.49
4019004327	Pima	4019	69%	0%	0%	3.5	2.1	0.51
4019004328	Pima	4019	88%	0%	0%	3.4	3.0	0.09
4019004329	Pima	4019	0%	0%	0%	4.0	1.6	0.15
4019004330	Pima	4019	98%	0%	0%	3.3	2.8	0.12
4019004331	Pima	4019	100%	0%	0%	4.0	3.2	0.24
4019004332	Pima	4019	100%	0%	0%	3.8	3.1	0.10
4019004333	Pima	4019	100%	0%	0%	3.0	3.0	0.66
4019004334	Pima	4019	100%	0%	0%	3.0	3.0	0.62
4019004404	Pima	4019	100%	0%	0%	1.6	1.6	0.23
4019004407	Pima	4019	2%	0%	0%	3.0	1.2	0.90
4019004411	Pima	4019	30%	0%	0%	2.0	0.7	0.47
4019004412	Pima	4019	100%	0%	0%	2.0	0.7	0.44
4019004413	Pima	4019	52%	0%	0%	2.0	0.7	0.24
4019004414	Pima	4019	99%	0%	0%	2.0	0.7	0.71
4019004415	Pima	4019	25%	0%	0%	2.1	0.7	0.54
4019004418	Pima	4019	100%	0%	0%	3.3	1.8	0.18
4019004419	Pima	4019	100%	0%	0%	1.6	1.6	0.60
4019004421	Pima	4019	100%	0%	0%	2.6	2.6	0.56
4019004422	Pima	4019	30%	0%	0%	2.2	1.1	0.48
4019004423	Pima	4019	97%	0%	0%	1.3	1.2	0.39
4019004424	Pima	4019	100%	0%	0%	9.1	9.1	0.71
4019004425	Pima	4019	100%	0%	0%	20.1	20.1	0.46
4019004426	Pima	4019	100%	0%	0%	3.9	2.5	0.33
4019004427	Pima	4019	100%	0%	0%	3.1	2.0	0.25
4019004428	Pima	4019	54%	0%	0%	2.8	2.0	0.15
4019004429	Pima	4019	100%	0%	0%	4.0	2.5	0.35
4019004430	Pima	4019	100%	0%	0%	1.8	1.8	0.77
4019004431	Pima	4019	100%	0%	0%	1.7	1.7	0.59
4019004504	Pima	4019	100%	0%	0%	2.0	0.7	0.87
4019004505	Pima	4019	100%	0%	0%	2.0	0.7	0.96
4019004506	Pima	4019	100%	0%	0%	5.7	3.2	0.82
4019004508	Pima	4019	100%	0%	0%	5.3	3.0	0.91
4019004510	Pima	4019	100%	0%	0%	5.3	2.4	0.70
4019004511	Pima	4019	100%	0%	0%	5.1	2.5	0.72
4019004512	Pima	4019	100%	0%	0%	4.2	2.2	0.63
4019004513	Pima	4019	100%	0%	0%	3.5	1.7	0.81
4019004610	Pima	4019	100%	0%	0%	6.0	3.4	0.59
4019004613	Pima	4019	100%	0%	0%	5.1	1.8	0.73
4019004614	Pima	4019	44%	0%	0%	5.8	2.9	0.46
4019004615	Pima	4019	65%	0%	0%	6.0	3.4	0.42
4019004616	Pima	4019	100%	0%	0%	6.0	3.4	0.66
4019004617	Pima	4019	80%	0%	0%	6.0	3.4	0.43
4019004618	Pima	4019	100%	0%	0%	6.0	3.4	0.52
4019004619	Pima	4019	17%	0%	0%	5.0	1.2	0.12
4019004620	Pima	4019	0%	0%	0%	5.0	1.2	0.50
4019004621	Pima	4019	65%	0%	0%	5.0	1.2	0.33

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4019004622	Pima	4019	0%	0%	0%	5.3	1.8	0.36
4019004623	Pima	4019	100%	0%	0%	4.1	1.7	0.28
4019004624	Pima	4019	100%	0%	0%	4.7	1.6	0.49
4019004625	Pima	4019	100%	0%	0%	5.0	1.2	0.60
4019004626	Pima	4019	100%	0%	0%	5.0	1.2	0.71
4019004627	Pima	4019	100%	0%	0%	5.1	1.5	0.43
4019004628	Pima	4019	100%	0%	0%	5.5	2.3	0.35
4019004630	Pima	4019	99%	0%	0%	1.4	0.7	0.52
4019004631	Pima	4019	64%	0%	0%	1.0	0.4	0.12
4019004632	Pima	4019	25%	0%	0%	3.5	1.0	0.11
4019004633	Pima	4019	34%	0%	0%	5.0	1.2	0.40
4019004634	Pima	4019	8%	0%	0%	2.1	0.8	0.20
4019004635	Pima	4019	0%	0%	0%	5.0	1.2	0.20
4019004636	Pima	4019	0%	0%	0%	5.0	1.2	0.04
4019004638	Pima	4019	53%	0%	0%	6.1	3.6	0.21
4019004639	Pima	4019	90%	0%	0%	3.7	2.3	0.24
4019004640	Pima	4019	3%	0%	0%	3.7	1.3	0.19
4019004641	Pima	4019	0%	0%	0%	4.9	1.2	0.08
4019004642	Pima	4019	0%	0%	0%	6.9	2.3	0.14
4019004643	Pima	4019	14%	0%	0%	7.7	2.7	0.09
4019004644	Pima	4019	100%	0%	0%	2.2	1.3	0.32
4019004645	Pima	4019	100%	0%	0%	1.5	0.8	0.33
4019004646	Pima	4019	100%	0%	0%	4.0	2.5	0.53
4019004647	Pima	4019	100%	0%	0%	4.1	2.4	0.16
4019004710	Pima	4019	62%	0%	0%	4.5	1.1	0.45
4019004711	Pima	4019	3%	0%	0%	4.0	0.4	0.17
4019004712	Pima	4019	1%	0%	0%	4.0	0.4	0.21
4019004713	Pima	4019	0%	0%	0%	5.7	2.9	0.31
4019004714	Pima	4019	0%	0%	0%	5.0	1.9	0.25
4019004715	Pima	4019	17%	0%	0%	6.7	2.5	0.48
4019004716	Pima	4019	45%	1%	48%	13.0	5.3	0.38
4019004717	Pima	4019	0%	0%	0%	4.0	0.4	0.16
4019004718	Pima	4019	0%	0%	0%	4.0	0.4	0.29
4019004719	Pima	4019	3%	0%	0%	7.5	1.5	0.04
4019004720	Pima	4019	0%	0%	0%	4.2	0.4	0.02
4019004721	Pima	4019	0%	0%	0%	8.3	1.7	0.29
4019004722	Pima	4019	0%	0%	0%	9.0	1.9	0.05
4019004723	Pima	4019	0%	0%	0%	9.1	1.9	0.08
4019004724	Pima	4019	0%	0%	0%	4.0	0.4	0.09
4019004725	Pima	4019	52%	0%	0%	6.0	3.4	0.32
4019004726	Pima	4019	11%	0%	0%	4.6	1.3	0.07
4019005200	Pima	4019	99%	0%	0%	8.7	8.6	0.84
4019005300	Pima	4019	0%	0%	0%	8.2	2.5	0.19
4019940600	Pima	4019	100%	0%	0%	42.1	42.1	0.92
4019940700	Pima	4019	96%	0%	0%	4.4	4.2	0.86
4019940800	Pima	4019	100%	0%	0%	17.9	17.9	0.91
4019940900	Pima	4019	68%	0%	0%	2.7	1.9	0.94
4019941000	Pima	4019	96%	0%	0%	3.0	2.9	0.97

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GEOID	County	County ID	Likelihood of Vegetative Change	Timber Vegetation Type (ERU)	Timber Vegetation Exposure	Watershed Importance	Watershed Importance Exposure	Social Vulnerability Index Rank
4021000201	Pinal	4021	58%	0%	0%	29.6	16.1	0.16
4021000204	Pinal	4021	100%	0%	0%	5.0	4.5	0.21
4021000205	Pinal	4021	100%	0%	0%	3.0	3.0	0.43
4021000206	Pinal	4021	100%	0%	0%	3.1	3.0	0.29
4021000207	Pinal	4021	100%	0%	0%	3.8	3.5	0.44
4021000208	Pinal	4021	100%	0%	0%	2.4	2.3	0.42
4021000209	Pinal	4021	100%	0%	0%	2.1	2.1	0.26
4021000210	Pinal	4021	100%	0%	0%	2.0	2.0	0.32
4021000211	Pinal	4021	100%	0%	0%	2.0	2.0	0.40
4021000212	Pinal	4021	100%	0%	0%	2.0	2.0	0.30
4021000213	Pinal	4021	100%	0%	0%	2.1	2.1	0.40
4021000214	Pinal	4021	100%	0%	0%	2.0	2.0	0.30
4021000215	Pinal	4021	100%	0%	0%	2.7	2.7	0.21
4021000307	Pinal	4021	100%	0%	0%	56.7	55.8	0.23
4021000308	Pinal	4021	100%	0%	0%	61.0	61.0	0.60
4021000309	Pinal	4021	100%	0%	0%	61.0	61.0	0.50
4021000310	Pinal	4021	100%	0%	0%	30.0	29.7	0.47
4021000311	Pinal	4021	100%	0%	0%	4.5	4.2	0.03
4021000312	Pinal	4021	100%	0%	0%	61.0	61.0	0.80
4021000313	Pinal	4021	100%	0%	0%	56.1	56.1	0.73
4021000314	Pinal	4021	100%	0%	0%	45.1	45.0	0.59
4021000315	Pinal	4021	100%	0%	0%	11.3	10.9	0.81
4021000316	Pinal	4021	100%	0%	0%	3.9	3.7	0.10
4021000317	Pinal	4021	100%	0%	0%	8.2	7.9	0.33
4021000318	Pinal	4021	100%	0%	0%	6.1	5.6	0.57
4021000319	Pinal	4021	100%	0%	0%	3.1	3.0	0.13
4021000400	Pinal	4021	39%	0%	0%	14.2	4.3	0.70
4021000603	Pinal	4021	20%	0%	0%	7.7	2.6	0.02
4021000604	Pinal	4021	55%	0%	0%	7.8	3.5	0.01
4021000700	Pinal	4021	94%	0%	0%	2.0	1.4	0.85
4021000801	Pinal	4021	100%	0%	0%	2.1	2.0	0.61
4021000802	Pinal	4021	66%	0%	0%	6.2	3.5	0.36
4021000803	Pinal	4021	93%	0%	0%	5.2	3.9	0.73
4021000901	Pinal	4021	100%	0%	0%	2.0	2.0	0.78
4021000902	Pinal	4021	100%	0%	0%	2.0	1.8	0.66
4021001000	Pinal	4021	100%	0%	0%	2.6	2.6	0.98
4021001100	Pinal	4021	100%	0%	0%	3.0	3.0	0.64
4021001200	Pinal	4021	100%	0%	0%	2.9	2.7	0.86
4021001301	Pinal	4021	100%	0%	0%	3.0	3.0	0.84
4021001303	Pinal	4021	100%	0%	0%	2.8	2.8	0.47
4021001304	Pinal	4021	100%	0%	0%	3.0	3.0	0.50
4021001305	Pinal	4021	100%	0%	0%	3.0	3.0	0.60
4021001306	Pinal	4021	100%	0%	0%	3.0	3.0	0.80
4021001403	Pinal	4021	100%	0%	0%	3.0	3.0	0.80
4021001404	Pinal	4021	100%	0%	0%	3.0	3.0	0.51
4021001405	Pinal	4021	100%	0%	0%	3.0	3.0	0.52
4021001406	Pinal	4021	100%	0%	0%	3.0	3.0	0.99
4021001407	Pinal	4021	100%	0%	0%	3.0	3.0	0.83

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4021001408	Pinal	4021	100%	0%	0%	3.0	3.0	0.13
4021001500	Pinal	4021	100%	0%	0%	3.0	3.0	0.97
4021001600	Pinal	4021	100%	0%	0%	13.3	13.3	0.76
4021001701	Pinal	4021	100%	0%	0%	3.0	3.0	0.55
4021001702	Pinal	4021	100%	0%	0%	20.3	20.3	0.47
4021001703	Pinal	4021	100%	0%	0%	51.4	51.4	0.47
4021001704	Pinal	4021	100%	0%	0%	3.0	3.0	0.35
4021001705	Pinal	4021	100%	0%	0%	58.0	58.0	0.17
4021001706	Pinal	4021	100%	0%	0%	58.0	58.0	0.28
4021001707	Pinal	4021	100%	0%	0%	20.8	20.8	0.38
4021001708	Pinal	4021	100%	0%	0%	57.2	57.2	0.24
4021001709	Pinal	4021	100%	0%	0%	39.2	39.2	0.18
4021001710	Pinal	4021	100%	0%	0%	4.2	4.2	0.21
4021001711	Pinal	4021	100%	0%	0%	21.4	21.4	0.33
4021001900	Pinal	4021	100%	0%	0%	2.7	2.7	0.80
4021002001	Pinal	4021	100%	0%	0%	3.0	3.0	0.77
4021002002	Pinal	4021	100%	0%	0%	2.8	2.8	0.79
4021002003	Pinal	4021	100%	0%	0%	2.0	2.0	0.99
4021002101	Pinal	4021	100%	0%	0%	3.0	3.0	0.68
4021002102	Pinal	4021	100%	0%	0%	6.2	6.2	0.75
4021002103	Pinal	4021	100%	0%	0%	33.4	33.4	0.57
4021002200	Pinal	4021	46%	0%	0%	5.4	2.2	0.69
4021002300	Pinal	4021	54%	0%	0%	7.6	3.7	0.72
4021002400	Pinal	4021	51%	0%	0%	3.2	1.6	0.82
4021941200	Pinal	4021	100%	0%	0%	2.9	2.9	0.94
4021941300	Pinal	4021	100%	0%	0%	5.6	5.6	0.84
4021941400	Pinal	4021	99%	0%	0%	35.6	35.4	0.86
4023966000	Santa Cruz	4023	86%	1%	100%	2.7	2.5	0.44
4023966101	Santa Cruz	4023	98%	0%	0%	4.6	4.4	0.27
4023966103	Santa Cruz	4023	100%	0%	0%	3.0	3.0	0.95
4023966104	Santa Cruz	4023	96%	0%	0%	3.0	2.9	0.59
4023966105	Santa Cruz	4023	99%	0%	0%	2.7	2.7	0.65
4023966200	Santa Cruz	4023	100%	0%	0%	3.0	3.0	0.91
4023966301	Santa Cruz	4023	100%	0%	0%	2.8	2.7	0.82
4023966302	Santa Cruz	4023	100%	0%	0%	3.0	3.0	1.00
4023966401	Santa Cruz	4023	100%	0%	0%	3.0	3.0	0.95
4023966402	Santa Cruz	4023	100%	0%	0%	3.0	3.0	0.98
4025000202	Yavapai	4025	23%	0%	100%	27.4	4.6	0.43
4025000203	Yavapai	4025	4%	0%	0%	22.5	2.2	0.47
4025000204	Yavapai	4025	14%	0%	0%	24.1	5.8	0.50
4025000300	Yavapai	4025	2%	0%	0%	27.8	5.1	0.54
4025000401	Yavapai	4025	4%	1%	100%	50.7	15.8	0.36
4025000402	Yavapai	4025	1%	0%	100%	50.5	16.0	0.27
4025000500	Yavapai	4025	10%	0%	100%	46.3	11.6	0.36
4025000604	Yavapai	4025	14%	0%	0%	53.0	10.3	0.39
4025000605	Yavapai	4025	8%	0%	0%	52.9	10.3	0.62
4025000606	Yavapai	4025	1%	0%	0%	53.1	10.4	0.84
4025000607	Yavapai	4025	7%	0%	0%	56.6	10.6	0.22

Arizona Census Tract

GEOID	County	County ID	Likelihood of Vegetative Change	Timber Vegetation Type (ERU)	Timber Vegetation Exposure	Watershed Importance	Watershed Importance Exposure	Social Vulnerability Index Rank
4025000608	Yavapai	4025	23%	0%	0%	52.9	10.3	0.53
4025000609	Yavapai	4025	23%	0%	0%	53.0	10.3	0.81
4025000610	Yavapai	4025	37%	0%	0%	54.0	10.6	0.70
4025000700	Yavapai	4025	27%	10%	88%	45.1	9.1	0.36
4025000801	Yavapai	4025	48%	24%	100%	49.0	17.3	0.43
4025000802	Yavapai	4025	31%	12%	100%	50.7	16.1	0.46
4025000900	Yavapai	4025	12%	10%	100%	49.0	17.3	0.73
4025001001	Yavapai	4025	35%	24%	100%	50.2	16.3	0.47
4025001002	Yavapai	4025	20%	3%	100%	35.3	6.3	0.46
4025001101	Yavapai	4025	44%	10%	100%	48.9	17.3	0.20
4025001102	Yavapai	4025	32%	8%	100%	31.4	10.8	0.41
4025001200	Yavapai	4025	20%	4%	100%	28.4	5.8	0.22
4025001300	Yavapai	4025	15%	0%	0%	22.1	3.1	0.20
4025001401	Yavapai	4025	44%	0%	0%	57.7	25.2	0.54
4025001402	Yavapai	4025	39%	0%	100%	34.7	17.2	0.42
4025001403	Yavapai	4025	25%	0%	0%	15.4	3.1	0.39
4025001500	Yavapai	4025	38%	1%	100%	60.8	23.0	0.63
4025001601	Yavapai	4025	40%	0%	0%	40.6	12.1	0.81
4025001602	Yavapai	4025	19%	0%	16%	57.4	11.9	0.57
4025001603	Yavapai	4025	14%	0%	0%	38.8	8.6	0.50
4025001701	Yavapai	4025	20%	0%	0%	41.3	8.6	0.32
4025001702	Yavapai	4025	38%	0%	0%	39.8	10.7	0.31
4025001703	Yavapai	4025	28%	0%	0%	34.8	6.8	0.42
4025001801	Yavapai	4025	69%	0%	0%	52.5	19.8	0.21
4025001802	Yavapai	4025	22%	5%	93%	51.7	12.4	0.30
4025001900	Yavapai	4025	22%	3%	57%	42.2	8.1	0.39
4025002001	Yavapai	4025	1%	0%	0%	46.1	6.5	0.82
4025002002	Yavapai	4025	21%	0%	0%	50.1	10.2	0.88
4025002003	Yavapai	4025	33%	0%	0%	54.0	7.9	0.81
4025002004	Yavapai	4025	9%	0%	100%	47.9	7.5	0.49
4025002100	Yavapai	4025	55%	0%	100%	16.5	7.7	0.74
4027000100	Yuma	4027	100%	0%	0%	44.5	44.5	0.89
4027000200	Yuma	4027	100%	0%	0%	53.0	53.0	0.81
4027000301	Yuma	4027	100%	0%	0%	43.3	43.3	0.96
4027000302	Yuma	4027	100%	0%	0%	53.0	53.0	0.98
4027000402	Yuma	4027	100%	0%	0%	53.0	53.0	0.80
4027000403	Yuma	4027	100%	0%	0%	53.0	53.0	0.88
4027000404	Yuma	4027	100%	0%	0%	53.0	53.0	0.97
4027000501	Yuma	4027	100%	0%	0%	53.0	53.0	0.55
4027000502	Yuma	4027	100%	0%	0%	53.0	53.0	0.70
4027000600	Yuma	4027	100%	0%	0%	53.0	53.0	0.85
4027000700	Yuma	4027	100%	0%	0%	30.4	30.4	0.98
4027000800	Yuma	4027	100%	0%	0%	53.0	53.0	0.76
4027000901	Yuma	4027	100%	0%	0%	53.0	53.0	0.60
4027000902	Yuma	4027	100%	0%	0%	53.0	53.0	0.87
4027000903	Yuma	4027	100%	0%	0%	53.0	53.0	0.52
4027000905	Yuma	4027	100%	0%	0%	53.0	53.0	0.57
4027000907	Yuma	4027	100%	0%	0%	53.0	53.0	0.70

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GEOID	County	County ID	Likelihood of Vegetative Change	Timber Vegetation Type (ERU)	Timber Vegetation Exposure	Watershed Importance	Watershed Importance Exposure	Social Vulnerability Index Rank
4027000908	Yuma	4027	100%	0%	0%	53.0	53.0	0.29
4027001001	Yuma	4027	100%	0%	0%	53.0	53.0	0.55
4027001003	Yuma	4027	100%	0%	0%	53.0	53.0	0.96
4027001004	Yuma	4027	100%	0%	0%	53.0	53.0	0.90
4027001100	Yuma	4027	100%	0%	0%	53.0	53.0	0.76
4027001200	Yuma	4027	100%	0%	0%	45.7	45.7	0.68
4027010905	Yuma	4027	100%	0%	0%	13.0	13.0	0.74
4027010907	Yuma	4027	100%	0%	0%	10.0	10.0	0.27
4027010910	Yuma	4027	100%	0%	0%	10.0	10.0	0.37
4027010911	Yuma	4027	100%	0%	0%	14.3	14.3	0.63
4027010913	Yuma	4027	100%	0%	0%	11.3	11.3	0.79
4027010914	Yuma	4027	100%	0%	0%	11.9	11.9	0.72
4027011000	Yuma	4027	100%	0%	0%	49.1	49.1	0.74
4027011104	Yuma	4027	100%	0%	0%	53.0	53.0	0.55
4027011106	Yuma	4027	100%	0%	0%	50.8	50.8	0.57
4027011107	Yuma	4027	100%	0%	0%	50.4	50.4	0.46
4027011108	Yuma	4027	100%	0%	0%	53.0	53.0	0.40
4027011110	Yuma	4027	100%	0%	0%	25.3	25.3	0.37
4027011111	Yuma	4027	100%	0%	0%	45.6	45.6	0.65
4027011112	Yuma	4027	100%	0%	0%	10.0	10.0	0.20
4027011114	Yuma	4027	100%	0%	0%	16.5	16.5	0.31
4027011115	Yuma	4027	100%	0%	0%	10.0	10.0	0.44
4027011201	Yuma	4027	100%	0%	0%	14.7	14.7	0.67
4027011202	Yuma	4027	100%	0%	0%	21.4	21.4	0.75
4027011403	Yuma	4027	100%	0%	0%	53.0	53.0	0.85
4027011405	Yuma	4027	100%	0%	0%	53.0	53.0	0.79
4027011406	Yuma	4027	100%	0%	0%	53.0	53.0	0.78
4027011501	Yuma	4027	100%	0%	0%	42.0	42.0	0.98
4027011503	Yuma	4027	100%	0%	0%	53.0	53.0	0.86
4027011504	Yuma	4027	100%	0%	0%	53.0	53.0	0.77
4027011600	Yuma	4027	100%	0%	0%	43.9	43.9	0.95
4027011700	Yuma	4027	100%	0%	0%	38.3	38.3	0.40
4027011800	Yuma	4027	100%	0%	0%	53.0	53.0	0.72
4027012100	Yuma	4027	100%	0%	0%	16.4	16.4	0.61
4027980003	Yuma	4027	100%	0%	0%	8.6	8.6	-999.00
4027980004	Yuma	4027	100%	0%	0%	21.2	21.2	-999.00
4027980005	Yuma	4027	100%	0%	0%	53.0	53.0	-999.00
4027980006	Yuma	4027	100%	0%	0%	53.0	53.0	0.16

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35001000107	Bernalillo	35001	86%	0%	0%	17.0	15.2	0.07
35001000108	Bernalillo	35001	100%	0%	0%	15.6	14.1	0.36
35001000109	Bernalillo	35001	100%	0%	0%	7.5	7.4	0.32
35001000110	Bernalillo	35001	100%	0%	0%	12.6	11.6	0.41
35001000111	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.11
35001000112	Bernalillo	35001	85%	0%	0%	17.0	15.2	0.02
35001000113	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.33
35001000114	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.42
35001000115	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.64
35001000116	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.18
35001000117	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.16
35001000118	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.19
35001000119	Bernalillo	35001	100%	0%	0%	7.8	7.6	0.16
35001000120	Bernalillo	35001	100%	0%	0%	8.5	8.3	0.23
35001000121	Bernalillo	35001	100%	0%	0%	16.8	15.1	0.73
35001000122	Bernalillo	35001	100%	0%	0%	15.5	14.0	0.39
35001000123	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.21
35001000124	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.56
35001000125	Bernalillo	35001	93%	0%	0%	17.0	15.2	0.02
35001000126	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.19
35001000127	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.38
35001000128	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.47
35001000129	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.60
35001000203	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.43
35001000204	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.27
35001000205	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.39
35001000206	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.20
35001000207	Bernalillo	35001	100%	0%	0%	14.0	12.8	0.32
35001000208	Bernalillo	35001	100%	0%	0%	12.4	11.4	0.17
35001000300	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.18
35001000401	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.20
35001000402	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.05
35001000501	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.71
35001000502	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.24
35001000601	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.42
35001000603	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.98
35001000604	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.96
35001000704	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.39
35001000707	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.93
35001000708	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.65
35001000710	Bernalillo	35001	77%	0%	0%	11.8	7.3	0.08
35001000711	Bernalillo	35001	98%	0%	0%	16.6	14.6	0.32
35001000712	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.50
35001000713	Bernalillo	35001	100%	0%	0%	15.7	13.2	0.86
35001000714	Bernalillo	35001	100%	0%	0%	15.1	12.5	0.38
35001000801	Bernalillo	35001	95%	0%	0%	7.3	5.3	0.05
35001000901	Bernalillo	35001	100%	0%	0%	17.0	15.2	1.00
35001000903	Bernalillo	35001	100%	0%	0%	15.4	13.4	0.88
35001000904	Bernalillo	35001	100%	0%	0%	16.8	15.0	0.74
35001001101	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.30
35001001102	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.48
35001001200	Bernalillo	35001	100%	0%	0%	16.5	14.6	0.68

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35001001300	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.76
35001001400	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.93
35001001500	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.62
35001001600	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.40
35001001700	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.17
35001001800	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.63
35001001900	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.19
35001002000	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.92
35001002100	Bernalillo	35001	100%	0%	0%	17.0	15.2	0.70
35001002200	Bernalillo	35001	100%	0%	0%	10.5	9.8	0.36
35001002300	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.86
35001002401	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.63
35001002402	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.93
35001002500	Bernalillo	35001	100%	0%	0%	7.5	7.4	0.78
35001002600	Bernalillo	35001	100%	0%	0%	7.4	7.3	0.30
35001002700	Bernalillo	35001	100%	0%	0%	15.7	14.2	0.51
35001002900	Bernalillo	35001	100%	0%	0%	11.4	10.6	0.49
35001003001	Bernalillo	35001	100%	0%	0%	7.4	7.3	0.72
35001003002	Bernalillo	35001	100%	0%	0%	11.5	9.8	0.32
35001003100	Bernalillo	35001	100%	0%	0%	17.0	13.2	0.11
35001003201	Bernalillo	35001	100%	0%	0%	8.0	7.6	0.56
35001003202	Bernalillo	35001	100%	0%	0%	7.8	7.5	0.69
35001003400	Bernalillo	35001	100%	0%	0%	8.8	8.4	0.99
35001003501	Bernalillo	35001	100%	0%	0%	16.4	12.8	0.61
35001003502	Bernalillo	35001	100%	0%	0%	19.1	14.6	0.04
35001003600	Bernalillo	35001	100%	0%	0%	20.9	14.9	0.35
35001003707	Bernalillo	35001	100%	0%	0%	15.1	12.1	0.45
35001003712	Bernalillo	35001	100%	0%	0%	21.2	15.1	0.23
35001003714	Bernalillo	35001	100%	0%	0%	7.2	7.1	0.46
35001003715	Bernalillo	35001	100%	0%	0%	20.0	15.1	0.07
35001003717	Bernalillo	35001	100%	0%	0%	20.0	15.1	0.20
35001003718	Bernalillo	35001	100%	0%	0%	9.5	8.5	0.11
35001003719	Bernalillo	35001	100%	0%	0%	11.6	10.2	0.35
35001003721	Bernalillo	35001	42%	35%	82%	20.1	15.0	0.01
35001003722	Bernalillo	35001	100%	0%	0%	21.9	15.1	0.15
35001003723	Bernalillo	35001	100%	0%	0%	21.0	15.1	0.34
35001003724	Bernalillo	35001	100%	0%	0%	20.0	15.1	0.12
35001003725	Bernalillo	35001	100%	0%	0%	20.0	15.1	0.41
35001003726	Bernalillo	35001	100%	0%	0%	20.0	15.1	0.04
35001003728	Bernalillo	35001	100%	0%	0%	20.0	15.1	0.35
35001003729	Bernalillo	35001	100%	0%	0%	21.1	15.1	0.02
35001003730	Bernalillo	35001	100%	0%	0%	21.2	15.1	0.05
35001003731	Bernalillo	35001	100%	0%	0%	22.0	15.1	0.01
35001003732	Bernalillo	35001	100%	0%	0%	21.9	15.1	0.04
35001003733	Bernalillo	35001	100%	0%	0%	8.2	7.7	0.92
35001003735	Bernalillo	35001	100%	0%	0%	13.6	11.0	0.36
35001003736	Bernalillo	35001	100%	0%	0%	19.9	14.3	0.75
35001003737	Bernalillo	35001	100%	0%	0%	20.0	15.1	0.08
35001003738	Bernalillo	35001	100%	0%	0%	20.0	15.1	0.34
35001003803	Bernalillo	35001	49%	20%	90%	19.9	9.3	0.02
35001003804	Bernalillo	35001	47%	15%	100%	16.7	7.9	0.05
35001003805	Bernalillo	35001	36%	47%	57%	18.3	10.6	0.18

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35001003806	Bernalillo	35001	31%	15%	100%	12.3	5.9	0.01
35001003807	Bernalillo	35001	54%	40%	99%	6.1	3.9	0.15
35001004001	Bernalillo	35001	100%	0%	0%	7.6	6.7	0.88
35001004300	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.88
35001004401	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.81
35001004402	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.78
35001004501	Bernalillo	35001	100%	0%	0%	7.2	7.1	0.78
35001004502	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.73
35001004602	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.44
35001004603	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.49
35001004604	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.80
35001004712	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.51
35001004713	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.56
35001004715	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.75
35001004716	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.25
35001004717	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.22
35001004720	Bernalillo	35001	100%	0%	0%	7.0	6.7	0.15
35001004722	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.28
35001004723	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.01
35001004724	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.00
35001004725	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.07
35001004726	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.06
35001004727	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.17
35001004728	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.09
35001004729	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.31
35001004733	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.58
35001004734	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.77
35001004735	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.67
35001004736	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.74
35001004737	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.30
35001004738	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.71
35001004739	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.63
35001004740	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.77
35001004741	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.97
35001004742	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.39
35001004743	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.08
35001004744	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.03
35001004745	Bernalillo	35001	100%	0%	0%	7.0	6.7	0.12
35001004746	Bernalillo	35001	100%	0%	0%	7.0	6.3	0.10
35001004747	Bernalillo	35001	100%	0%	0%	7.0	6.8	0.42
35001004748	Bernalillo	35001	100%	0%	0%	7.0	6.7	0.09
35001004749	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.81
35001004750	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.37
35001004751	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.10
35001004752	Bernalillo	35001	100%	0%	0%	7.0	7.0	0.17
35001004753	Bernalillo	35001	100%	0%	0%	7.0	6.7	0.14
35001940500	Bernalillo	35001	57%	4%	12%	16.0	11.9	0.01
35001940600	Bernalillo	35001	99%	0%	0%	7.0	6.9	0.54
35001940700	Bernalillo	35001	95%	7%	99%	9.6	8.8	0.68
35003976400	Catron	35003	28%	23%	44%	1.8	0.4	0.33
35005000201	Chaves	35005	100%	0%	0%	5.0	5.0	0.67
35005000202	Chaves	35005	100%	0%	0%	5.0	5.0	0.58

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35005000300	Chaves	35005	100%	0%	0%	5.0	5.0	0.65
35005000400	Chaves	35005	100%	0%	0%	5.0	5.0	0.87
35005000500	Chaves	35005	100%	0%	0%	5.0	5.0	0.92
35005000600	Chaves	35005	100%	0%	0%	5.0	5.0	0.96
35005000700	Chaves	35005	100%	0%	0%	5.0	5.0	0.85
35005000800	Chaves	35005	100%	0%	0%	5.0	5.0	0.76
35005000900	Chaves	35005	100%	0%	0%	5.0	5.0	0.24
35005001001	Chaves	35005	100%	0%	0%	5.0	5.0	0.16
35005001002	Chaves	35005	100%	0%	0%	5.0	5.0	0.43
35005001101	Chaves	35005	100%	0%	0%	5.0	5.0	0.95
35005001102	Chaves	35005	84%	0%	100%	5.7	4.3	0.28
35005001200	Chaves	35005	99%	0%	0%	3.9	3.8	0.25
35005001300	Chaves	35005	100%	0%	0%	4.3	4.3	0.91
35005001400	Chaves	35005	97%	0%	0%	6.1	5.9	0.70
35006941500	Cibola	35006	74%	3%	99%	6.9	5.2	0.72
35006945800	Cibola	35006	12%	7%	100%	2.8	0.3	0.92
35006946100	Cibola	35006	92%	0%	100%	8.1	6.9	0.87
35006974201	Cibola	35006	99%	0%	0%	7.0	5.7	1.00
35006974202	Cibola	35006	100%	0%	0%	7.0	5.7	0.53
35006974400	Cibola	35006	94%	0%	0%	7.0	5.8	0.89
35006974700	Cibola	35006	49%	22%	54%	5.9	2.9	0.76
35007950500	Colfax	35007	6%	14%	20%	21.8	1.4	0.71
35007950600	Colfax	35007	16%	73%	22%	25.6	3.8	0.62
35007950700	Colfax	35007	7%	38%	15%	36.5	2.8	0.60
35009000100	Curry	35009	100%	0%	0%	0.0	0.0	0.99
35009000201	Curry	35009	100%	0%	0%	0.0	0.0	0.44
35009000202	Curry	35009	100%	0%	0%	0.0	0.0	0.90
35009000301	Curry	35009	100%	0%	0%	0.0	0.0	0.59
35009000303	Curry	35009	100%	0%	0%	0.0	0.0	0.29
35009000304	Curry	35009	100%	0%	0%	0.0	0.0	0.14
35009000400	Curry	35009	100%	0%	0%	0.0	0.0	0.94
35009000500	Curry	35009	100%	0%	0%	0.0	0.0	0.81
35009000601	Curry	35009	98%	0%	0%	0.7	0.7	0.15
35009000602	Curry	35009	97%	0%	0%	6.9	6.6	0.17
35009000603	Curry	35009	98%	0%	0%	0.0	0.0	0.68
35009000900	Curry	35009	100%	0%	0%	0.0	0.0	0.28
35011960100	De Baca	35011	99%	0%	0%	4.7	4.6	0.42
35013000102	Dona Ana	35013	100%	0%	0%	63.0	63.0	0.55
35013000103	Dona Ana	35013	100%	0%	0%	63.0	63.0	0.95
35013000104	Dona Ana	35013	100%	0%	0%	63.0	63.0	0.25
35013000201	Dona Ana	35013	100%	0%	0%	63.4	63.4	0.98
35013000202	Dona Ana	35013	100%	0%	0%	63.0	63.0	0.52
35013000300	Dona Ana	35013	100%	0%	0%	63.0	63.0	0.53
35013000401	Dona Ana	35013	100%	0%	0%	64.3	64.3	0.78
35013000402	Dona Ana	35013	100%	0%	0%	64.0	64.0	0.84
35013000500	Dona Ana	35013	100%	0%	0%	63.8	63.8	0.66
35013000600	Dona Ana	35013	100%	0%	0%	65.0	65.0	0.68
35013000700	Dona Ana	35013	100%	0%	0%	65.0	65.0	0.60
35013000800	Dona Ana	35013	100%	0%	0%	65.0	65.0	0.72
35013000900	Dona Ana	35013	100%	0%	0%	65.0	65.0	0.67
35013001000	Dona Ana	35013	100%	0%	0%	66.7	65.0	0.55
35013001102	Dona Ana	35013	100%	0%	0%	63.4	63.4	0.37

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35013001103	Dona Ana	35013	100%	0%	0%	64.8	64.7	0.43
35013001104	Dona Ana	35013	100%	0%	0%	66.7	64.7	0.85
35013001201	Dona Ana	35013	89%	0%	100%	34.3	33.8	0.40
35013001203	Dona Ana	35013	100%	0%	0%	65.0	65.0	0.44
35013001204	Dona Ana	35013	98%	0%	0%	67.1	64.6	0.03
35013001205	Dona Ana	35013	100%	0%	0%	67.1	65.0	0.34
35013001303	Dona Ana	35013	100%	0%	0%	62.7	62.7	0.45
35013001304	Dona Ana	35013	100%	0%	0%	14.4	14.4	0.52
35013001305	Dona Ana	35013	100%	0%	0%	0.0	0.0	0.65
35013001306	Dona Ana	35013	100%	0%	0%	63.0	63.0	0.31
35013001307	Dona Ana	35013	100%	0%	0%	16.0	16.0	0.66
35013001400	Dona Ana	35013	99%	0%	0%	47.8	47.6	0.88
35013001500	Dona Ana	35013	100%	0%	0%	30.5	30.4	0.21
35013001600	Dona Ana	35013	100%	0%	0%	65.4	65.4	0.83
35013001701	Dona Ana	35013	100%	0%	0%	5.1	5.1	0.70
35013001702	Dona Ana	35013	100%	0%	0%	66.9	66.9	0.54
35013001703	Dona Ana	35013	100%	0%	0%	68.4	68.4	0.48
35013001705	Dona Ana	35013	100%	0%	0%	73.7	73.7	0.84
35013001706	Dona Ana	35013	100%	0%	0%	74.0	74.0	0.97
35013001707	Dona Ana	35013	100%	0%	0%	72.1	72.1	0.91
35013001801	Dona Ana	35013	100%	0%	0%	65.5	64.7	0.59
35013001802	Dona Ana	35013	100%	0%	0%	55.0	54.6	0.85
35013001804	Dona Ana	35013	100%	0%	0%	0.0	0.0	0.79
35013001805	Dona Ana	35013	100%	0%	0%	65.0	65.0	0.90
35013001806	Dona Ana	35013	100%	0%	0%	65.0	65.0	0.91
35013001900	Dona Ana	35013	95%	0%	100%	1.8	1.7	0.13
35015000100	Eddy	35015	100%	0%	0%	5.0	5.0	0.57
35015000200	Eddy	35015	100%	0%	0%	5.0	5.0	0.23
35015000300	Eddy	35015	100%	0%	0%	5.0	5.0	0.43
35015000401	Eddy	35015	100%	0%	0%	5.0	5.0	0.48
35015000402	Eddy	35015	100%	0%	0%	5.0	5.0	0.80
35015000500	Eddy	35015	100%	0%	0%	5.0	5.0	0.60
35015000600	Eddy	35015	100%	0%	0%	5.0	5.0	0.24
35015000700	Eddy	35015	94%	0%	100%	7.2	6.3	0.43
35015000800	Eddy	35015	100%	0%	0%	3.9	3.9	0.53
35015000900	Eddy	35015	100%	0%	0%	4.1	4.1	0.30
35015001000	Eddy	35015	100%	0%	0%	5.0	5.0	0.76
35015001100	Eddy	35015	100%	0%	0%	5.0	5.0	0.25
35017964100	Grant	35017	37%	21%	86%	1.2	0.5	0.29
35017964200	Grant	35017	40%	0%	100%	1.1	0.3	0.27
35017964300	Grant	35017	25%	0%	100%	0.0	0.0	0.62
35017964400	Grant	35017	67%	0%	0%	0.0	0.0	0.97
35017964500	Grant	35017	31%	0%	0%	0.0	0.0	0.94
35017964600	Grant	35017	52%	3%	96%	0.0	0.0	0.82
35017964700	Grant	35017	45%	2%	100%	0.0	0.0	0.28
35017964800	Grant	35017	84%	0%	100%	0.0	0.0	0.31
35019961600	Guadalupe	35019	92%	0%	0%	5.1	4.8	0.73
35021000100	Harding	35021	64%	0%	100%	9.8	6.3	0.26
35023970000	Hidalgo	35023	90%	0%	100%	0.0	0.0	0.46
35023970200	Hidalgo	35023	100%	0%	0%	0.0	0.0	0.97
35025000100	Lea	35025	100%	0%	0%	23.2	23.2	0.85
35025000200	Lea	35025	100%	0%	0%	24.0	24.0	0.69

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35025000300	Lea	35025	100%	0%	0%	23.9	23.9	0.94
35025000400	Lea	35025	100%	0%	0%	20.4	20.4	0.91
35025000502	Lea	35025	100%	0%	0%	17.2	17.2	0.58
35025000503	Lea	35025	100%	0%	0%	25.8	25.8	0.32
35025000504	Lea	35025	100%	0%	0%	28.7	28.7	0.14
35025000600	Lea	35025	100%	0%	0%	22.2	22.2	0.62
35025000701	Lea	35025	100%	0%	0%	21.0	21.0	0.29
35025000702	Lea	35025	100%	0%	0%	10.6	10.6	0.52
35025000703	Lea	35025	100%	0%	0%	23.7	23.7	0.20
35025000704	Lea	35025	100%	0%	0%	22.7	22.7	0.37
35025000800	Lea	35025	100%	0%	0%	4.8	4.8	0.46
35025000900	Lea	35025	100%	0%	0%	3.0	3.0	0.37
35025001003	Lea	35025	100%	0%	0%	24.0	24.0	0.74
35025001004	Lea	35025	100%	0%	0%	24.0	24.0	0.66
35025001005	Lea	35025	100%	0%	0%	24.0	24.0	0.69
35025001100	Lea	35025	90%	0%	0%	17.2	16.0	0.50
35027960200	Lincoln	35027	79%	4%	71%	4.4	3.4	0.38
35027960300	Lincoln	35027	84%	9%	85%	16.4	12.7	0.26
35027960400	Lincoln	35027	74%	6%	83%	14.9	10.8	0.51
35027960600	Lincoln	35027	98%	82%	99%	60.1	41.6	0.45
35027960800	Lincoln	35027	95%	80%	100%	57.7	45.4	0.51
35028000100	Los Alamos	35028	61%	66%	87%	20.8	10.6	0.03
35028000200	Los Alamos	35028	30%	97%	18%	26.8	14.0	0.07
35028000400	Los Alamos	35028	73%	43%	99%	23.6	14.6	0.22
35028000500	Los Alamos	35028	64%	36%	61%	23.5	14.2	0.03
35029000100	Luna	35029	100%	0%	0%	0.0	0.0	0.80
35029000200	Luna	35029	100%	0%	0%	0.0	0.0	0.82
35029000300	Luna	35029	100%	0%	0%	0.0	0.0	0.95
35029000400	Luna	35029	100%	0%	0%	0.0	0.0	0.82
35029000500	Luna	35029	98%	0%	100%	0.0	0.0	0.99
35029000600	Luna	35029	100%	0%	0%	0.0	0.0	1.00
35031940300	McKinley	35031	91%	0%	0%	0.1	0.0	0.84
35031940500	McKinley	35031	51%	2%	100%	0.5	0.2	0.94
35031943500	McKinley	35031	66%	0%	100%	5.3	3.5	0.83
35031943600	McKinley	35031	44%	9%	77%	2.6	1.1	0.97
35031943700	McKinley	35031	85%	0%	100%	8.1	6.7	0.95
35031943800	McKinley	35031	70%	27%	79%	5.2	3.9	0.90
35031943901	McKinley	35031	38%	2%	80%	0.3	0.0	0.95
35031943902	McKinley	35031	72%	0%	100%	0.3	0.3	0.87
35031944000	McKinley	35031	57%	8%	65%	8.6	4.9	0.96
35031945200	McKinley	35031	71%	0%	0%	0.0	0.0	0.86
35031945300	McKinley	35031	64%	1%	100%	0.2	0.1	0.99
35031945400	McKinley	35031	77%	0%	0%	0.0	0.0	0.58
35031945500	McKinley	35031	56%	0%	0%	0.0	0.0	0.56
35031945600	McKinley	35031	62%	0%	0%	0.1	0.1	0.85
35031945700	McKinley	35031	22%	3%	98%	0.1	0.0	0.82
35031946000	McKinley	35031	58%	7%	73%	8.6	4.9	0.98
35031973100	McKinley	35031	24%	48%	38%	5.5	1.2	0.54
35033955200	Mora	35033	14%	29%	23%	30.0	3.8	0.66
35035000100	Otero	35035	100%	0%	0%	42.0	30.2	0.80
35035000200	Otero	35035	100%	0%	0%	42.0	30.2	0.61
35035000303	Otero	35035	100%	0%	0%	42.0	30.2	0.45

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35035000304	Otero	35035	100%	0%	0%	38.8	30.1	0.40
35035000305	Otero	35035	100%	0%	0%	42.0	30.2	0.63
35035000306	Otero	35035	100%	0%	0%	42.0	30.2	0.09
35035000401	Otero	35035	100%	0%	0%	42.0	30.2	0.35
35035000402	Otero	35035	100%	0%	0%	29.5	22.3	0.20
35035000500	Otero	35035	100%	0%	0%	36.3	31.6	0.83
35035000601	Otero	35035	100%	0%	0%	0.9	0.9	0.24
35035000602	Otero	35035	78%	5%	100%	17.3	12.8	0.42
35035000603	Otero	35035	91%	0%	0%	33.4	26.0	0.24
35035000700	Otero	35035	95%	0%	100%	4.3	3.5	0.62
35035000901	Otero	35035	53%	49%	90%	28.3	15.0	0.29
35035000902	Otero	35035	85%	7%	86%	3.2	1.9	0.98
35035940000	Otero	35035	71%	55%	91%	19.9	14.5	0.94
35037958601	Quay	35037	100%	0%	0%	12.7	12.7	0.57
35037958602	Quay	35037	100%	0%	0%	12.5	12.5	0.77
35037958900	Quay	35037	95%	0%	0%	13.5	12.7	0.10
35039000100	Rio Arriba	35039	22%	72%	6%	26.3	6.3	0.39
35039000200	Rio Arriba	35039	46%	7%	65%	10.1	3.8	0.67
35039000300	Rio Arriba	35039	65%	7%	21%	10.9	6.0	0.61
35039000400	Rio Arriba	35039	23%	51%	6%	24.2	3.7	0.57
35039000500	Rio Arriba	35039	6%	43%	8%	32.4	1.3	0.57
35039940700	Rio Arriba	35039	100%	0%	0%	7.0	5.8	0.90
35039940800	Rio Arriba	35039	67%	10%	68%	14.9	7.2	0.47
35039941000	Rio Arriba	35039	30%	28%	35%	32.9	8.8	0.81
35039944100	Rio Arriba	35039	100%	0%	0%	8.1	5.9	0.79
35041000100	Roosevelt	35041	100%	0%	0%	0.0	0.0	0.66
35041000200	Roosevelt	35041	100%	0%	0%	0.0	0.0	0.98
35041000300	Roosevelt	35041	100%	0%	0%	0.0	0.0	0.52
35041000401	Roosevelt	35041	99%	0%	0%	1.2	1.1	0.67
35041000402	Roosevelt	35041	83%	0%	0%	0.0	0.0	0.31
35043010503	Sandoval	35043	100%	0%	0%	7.5	6.8	0.68
35043010601	Sandoval	35043	100%	0%	0%	7.0	7.0	0.15
35043010602	Sandoval	35043	100%	0%	0%	7.0	6.9	0.02
35043010702	Sandoval	35043	100%	0%	0%	7.0	6.8	0.13
35043010703	Sandoval	35043	100%	0%	0%	7.0	6.7	0.09
35043010705	Sandoval	35043	100%	0%	0%	7.0	6.7	0.21
35043010712	Sandoval	35043	100%	0%	0%	7.0	7.0	0.27
35043010713	Sandoval	35043	100%	0%	0%	7.0	6.3	0.40
35043010714	Sandoval	35043	100%	0%	0%	7.0	6.5	0.18
35043010715	Sandoval	35043	100%	0%	0%	7.0	6.8	0.33
35043010716	Sandoval	35043	100%	0%	0%	7.0	6.9	0.49
35043010717	Sandoval	35043	100%	0%	0%	7.0	6.5	0.34
35043010718	Sandoval	35043	100%	0%	0%	7.0	6.7	0.09
35043010719	Sandoval	35043	100%	0%	0%	7.0	7.0	0.16
35043010720	Sandoval	35043	100%	0%	0%	7.0	6.7	0.06
35043010721	Sandoval	35043	100%	0%	0%	7.0	6.2	0.38
35043010722	Sandoval	35043	97%	0%	0%	7.0	5.5	0.37
35043010723	Sandoval	35043	85%	0%	0%	7.0	6.0	0.27
35043010900	Sandoval	35043	69%	10%	36%	12.9	7.0	0.69
35043011000	Sandoval	35043	70%	29%	47%	17.5	10.5	0.47
35043011100	Sandoval	35043	75%	4%	57%	13.4	8.6	0.04
35043011200	Sandoval	35043	40%	58%	11%	25.9	8.3	0.44

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35043940200	Sandoval	35043	90%	0%	100%	10.1	7.8	0.77
35043940300	Sandoval	35043	81%	25%	100%	23.0	16.1	-999.00
35043940500	Sandoval	35043	100%	0%	0%	16.8	13.3	0.73
35043940600	Sandoval	35043	76%	0%	100%	16.9	11.5	0.64
35043940700	Sandoval	35043	96%	0%	0%	7.8	6.9	0.71
35043940900	Sandoval	35043	45%	2%	99%	13.4	4.4	0.99
35045000100	San Juan	35045	100%	0%	0%	36.6	35.2	0.74
35045000201	San Juan	35045	98%	0%	0%	46.9	45.4	0.04
35045000202	San Juan	35045	95%	0%	0%	38.6	32.4	0.10
35045000204	San Juan	35045	100%	0%	0%	47.0	45.5	0.36
35045000205	San Juan	35045	100%	0%	0%	47.0	45.5	0.70
35045000301	San Juan	35045	96%	0%	0%	38.4	31.9	0.31
35045000302	San Juan	35045	100%	0%	0%	46.0	43.9	0.25
35045000401	San Juan	35045	100%	0%	0%	32.0	24.8	0.54
35045000402	San Juan	35045	100%	0%	0%	37.0	34.6	0.90
35045000503	San Juan	35045	99%	0%	0%	31.1	29.2	0.72
35045000504	San Juan	35045	98%	0%	0%	0.0	0.0	0.22
35045000505	San Juan	35045	99%	0%	0%	16.8	16.5	0.53
35045000607	San Juan	35045	99%	0%	0%	29.4	26.9	0.52
35045000608	San Juan	35045	96%	0%	0%	40.6	37.8	0.33
35045000609	San Juan	35045	97%	0%	0%	44.2	41.0	0.59
35045000610	San Juan	35045	87%	0%	0%	44.1	38.3	0.41
35045000611	San Juan	35045	67%	1%	100%	48.5	33.2	0.28
35045000612	San Juan	35045	88%	0%	0%	44.7	40.4	0.73
35045000613	San Juan	35045	85%	0%	0%	42.1	37.4	0.38
35045000702	San Juan	35045	84%	0%	0%	32.9	27.1	0.23
35045000705	San Juan	35045	100%	0%	0%	35.0	31.2	0.59
35045000706	San Juan	35045	60%	0%	100%	42.5	23.7	0.49
35045000707	San Juan	35045	99%	0%	0%	34.3	30.3	0.75
35045000708	San Juan	35045	100%	0%	0%	29.1	24.6	0.64
35045000900	San Juan	35045	97%	0%	0%	28.6	24.3	0.29
35045942801	San Juan	35045	96%	0%	0%	2.9	2.8	0.78
35045942802	San Juan	35045	96%	0%	0%	0.0	0.0	0.80
35045942803	San Juan	35045	100%	0%	0%	0.0	0.0	0.81
35045942900	San Juan	35045	88%	16%	66%	11.1	9.9	0.96
35045943000	San Juan	35045	96%	0%	0%	13.3	12.7	0.84
35045943100	San Juan	35045	78%	19%	51%	9.7	8.5	0.93
35045943201	San Juan	35045	61%	0%	0%	14.0	8.4	0.93
35045943300	San Juan	35045	79%	1%	100%	20.1	14.7	0.19
35047957200	San Miguel	35047	26%	0%	0%	62.7	6.7	0.88
35047957300	San Miguel	35047	2%	0%	0%	63.0	8.1	0.79
35047957400	San Miguel	35047	2%	0%	0%	42.3	7.3	0.96
35047957500	San Miguel	35047	65%	5%	24%	20.2	10.0	0.58
35047957600	San Miguel	35047	24%	56%	22%	24.0	5.7	0.64
35047957700	San Miguel	35047	42%	5%	88%	10.5	3.4	0.60
35047957800	San Miguel	35047	6%	0%	0%	63.0	9.9	0.92
35049000101	Santa Fe	35049	4%	9%	48%	71.7	10.5	0.11
35049000200	Santa Fe	35049	10%	1%	100%	40.5	6.9	0.08
35049000300	Santa Fe	35049	0%	0%	0%	72.0	10.7	0.26
35049000400	Santa Fe	35049	0%	0%	0%	72.0	10.7	0.21
35049000500	Santa Fe	35049	0%	0%	0%	67.6	10.1	0.13
35049000600	Santa Fe	35049	0%	0%	0%	72.0	10.7	0.06

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35049000700	Santa Fe	35049	0%	0%	0%	72.0	10.7	0.18
35049000800	Santa Fe	35049	27%	6%	100%	72.0	10.7	0.40
35049000900	Santa Fe	35049	3%	0%	100%	71.5	10.6	0.30
35049001001	Santa Fe	35049	0%	0%	0%	23.5	4.3	0.45
35049001002	Santa Fe	35049	2%	0%	0%	39.9	6.5	0.83
35049001102	Santa Fe	35049	8%	0%	0%	16.0	3.3	0.41
35049001103	Santa Fe	35049	14%	0%	0%	20.3	3.8	0.47
35049001105	Santa Fe	35049	27%	2%	100%	16.0	3.3	0.14
35049001106	Santa Fe	35049	28%	0%	0%	17.1	3.4	0.86
35049001107	Santa Fe	35049	11%	0%	0%	16.1	3.3	0.35
35049001202	Santa Fe	35049	29%	0%	100%	62.4	9.4	0.84
35049001203	Santa Fe	35049	50%	1%	100%	42.3	7.0	0.55
35049001204	Santa Fe	35049	2%	0%	0%	62.3	9.4	0.76
35049001205	Santa Fe	35049	16%	0%	0%	71.2	10.6	0.89
35049001301	Santa Fe	35049	23%	0%	0%	34.1	5.7	0.08
35049001302	Santa Fe	35049	6%	0%	0%	18.7	3.6	0.75
35049001303	Santa Fe	35049	41%	0%	0%	16.0	3.3	0.61
35049001304	Santa Fe	35049	63%	0%	0%	10.1	2.6	0.65
35049010102	Santa Fe	35049	38%	47%	7%	26.0	7.1	0.74
35049010203	Santa Fe	35049	12%	79%	1%	60.2	10.8	0.13
35049010204	Santa Fe	35049	48%	0%	100%	19.3	10.5	0.00
35049010304	Santa Fe	35049	60%	0%	100%	15.8	4.1	0.14
35049010308	Santa Fe	35049	86%	0%	0%	10.2	6.6	0.77
35049010309	Santa Fe	35049	34%	4%	47%	13.4	4.5	0.21
35049010310	Santa Fe	35049	26%	0%	100%	1.2	0.5	0.10
35049010311	Santa Fe	35049	14%	9%	79%	2.2	1.1	0.03
35049010312	Santa Fe	35049	11%	4%	100%	0.0	0.0	0.06
35049010314	Santa Fe	35049	13%	0%	0%	15.9	3.3	0.12
35049010315	Santa Fe	35049	26%	0%	0%	16.0	3.3	0.12
35049010316	Santa Fe	35049	26%	0%	0%	16.0	3.3	0.22
35049010400	Santa Fe	35049	6%	57%	11%	25.2	4.5	0.11
35049010500	Santa Fe	35049	8%	78%	10%	71.1	10.1	0.05
35049010601	Santa Fe	35049	35%	0%	0%	8.2	3.8	0.27
35049010602	Santa Fe	35049	7%	0%	0%	11.8	4.6	0.00
35049010603	Santa Fe	35049	71%	0%	0%	9.0	4.8	0.19
35049010700	Santa Fe	35049	17%	0%	0%	12.9	4.8	0.06
35049010800	Santa Fe	35049	10%	76%	9%	22.6	4.3	0.07
35049010900	Santa Fe	35049	59%	0%	0%	12.6	7.4	0.26
35049940300	Santa Fe	35049	80%	1%	100%	20.0	12.5	0.44
35049940400	Santa Fe	35049	48%	0%	0%	50.6	19.2	0.41
35049940500	Santa Fe	35049	51%	6%	27%	67.5	23.5	0.48
35049940600	Santa Fe	35049	89%	0%	0%	44.1	24.8	0.50
35049940900	Santa Fe	35049	100%	0%	0%	7.0	5.8	0.86
35049980000	Santa Fe	35049	98%	0%	0%	7.0	4.9	0.22
35051962200	Sierra	35051	100%	0%	0%	45.6	45.6	0.71
35051962300	Sierra	35051	100%	0%	0%	45.9	45.9	0.79
35051962401	Sierra	35051	92%	0%	67%	9.4	9.0	0.13
35051962402	Sierra	35051	52%	10%	84%	39.1	20.4	0.56
35053940000	Socorro	35053	72%	1%	97%	5.9	4.4	0.89
35053978100	Socorro	35053	78%	0%	100%	4.0	3.5	0.63
35053978200	Socorro	35053	57%	11%	70%	12.2	6.6	0.54
35053978301	Socorro	35053	80%	0%	0%	12.1	8.9	0.75

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35053978302	Socorro	35053	98%	0%	0%	10.9	10.0	0.57
35053978303	Socorro	35053	99%	0%	0%	11.5	10.4	0.89
35055940000	Taos	35055	22%	46%	47%	28.5	4.5	0.72
35055940100	Taos	35055	9%	51%	4%	25.7	2.2	0.69
35055952100	Taos	35055	10%	75%	5%	28.7	3.1	0.55
35055952300	Taos	35055	11%	2%	28%	10.8	0.9	0.34
35055952600	Taos	35055	5%	0%	0%	18.9	2.3	0.65
35055952700	Taos	35055	19%	79%	11%	33.4	6.9	0.61
35057963201	Torrance	35057	20%	3%	100%	0.0	0.0	0.46
35057963202	Torrance	35057	44%	0%	0%	0.1	0.0	0.36
35057963600	Torrance	35057	48%	9%	92%	1.8	1.1	0.79
35057963700	Torrance	35057	58%	2%	78%	3.4	1.7	0.33
35059950200	Union	35059	43%	1%	40%	16.9	7.6	0.46
35061940300	Valencia	35061	91%	0%	100%	14.8	13.1	0.53
35061970101	Valencia	35061	94%	0%	0%	17.9	14.9	0.89
35061970102	Valencia	35061	100%	0%	0%	16.1	14.9	0.48
35061970200	Valencia	35061	100%	0%	0%	15.5	14.4	0.12
35061970301	Valencia	35061	94%	0%	100%	16.8	13.2	0.87
35061970302	Valencia	35061	96%	0%	0%	17.7	14.8	0.26
35061970303	Valencia	35061	100%	0%	0%	13.8	12.0	0.50
35061970401	Valencia	35061	100%	0%	0%	7.0	7.0	0.70
35061970404	Valencia	35061	100%	0%	0%	7.0	7.0	0.55
35061970405	Valencia	35061	99%	0%	0%	7.0	7.0	0.23
35061970700	Valencia	35061	100%	0%	0%	7.9	7.8	0.59
35061970800	Valencia	35061	100%	0%	0%	15.9	15.5	0.82
35061970901	Valencia	35061	100%	0%	0%	15.9	15.5	0.91
35061970902	Valencia	35061	100%	0%	0%	7.3	7.3	0.51
35061971000	Valencia	35061	100%	0%	0%	16.4	15.6	0.47
35061971100	Valencia	35061	89%	1%	89%	13.4	11.3	0.64
35061971300	Valencia	35061	95%	0%	100%	7.1	6.7	0.87
35061971400	Valencia	35061	100%	0%	0%	7.0	7.0	0.50

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