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Declining urban and community tree cover in the United States

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ABSTRACT

Paired aerial photographs were interpreted to assess recent changes (c. 2009–2014) in tree, impervious and other cover types within urban/community and urban land in all 50 United States and the District of Columbia. National results indicate that tree cover in urban/community areas of the United States is on the decline at a rate of about 175,000 acres per year, which corresponds to approximately 36 million trees per year. Estimated loss of benefits from trees in urban areas is conservatively valued at $96 million per year. Overall, for both urban and the broader urban/community areas, 23 states/districts had statistically significant declines in tree cover, 25 states had non-significant decreases or no change in tree cover, and three states showed a non-significant increase in tree cover. The most intensive change occurred within urban areas, with tree cover in these areas dropping one percent over the 5-year period, compared to a 0.7 percent drop in urban/community areas. States/districts with the greatest statistically significant annual decline in percent urban tree cover were: Oklahoma (−0.92%/yr), District of Columbia (−0.44%/yr), Rhode Island (−0.40%/yr), Oregon (−0.38%/yr) and Georgia (−0.37%/yr). Coinciding with the loss of tree cover was a gain in impervious cover, with impervious cover increasing 0.6 percent in urban/community areas and 1.0 percent in urban areas over the 5-year period. Such changes in cover types affect the benefits derived from urban forests and consequently the health and well-being of urban residents.

1. Introduction

Urban forests provide many benefits to society, including moderating climate, reducing building energy use and atmospheric carbon dioxide (CO_2), improving air and water quality, mitigating rainfall runoff and flooding, enhancing human health and social well-being and lowering noise impacts (Nowak and Dwyer, 2007). The annual benefits derived from U.S. urban forests due to air pollution removal, carbon sequestration, and lowered building energy use and consequent altered power plant emissions are estimated at $18.3 billion (Nowak and Greenfield, 2018). However, various natural and anthropogenic forces (e.g., tree planting and removal, development, natural regeneration, storms, insects and diseases) are constantly altering the urban forest and consequently affecting the benefits and values derived from the forest.

Tree cover is one of the simplest proxies for assessing the amount of the urban forest and its associated benefits. A critical question related to urban forest sustainability is whether tree cover is trending upward, downward or remaining stable. By knowing the amount of and direction in which urban tree cover is moving, urban forest management plans can be developed to provide desired levels of urban tree cover and forest benefits for current and future generations.

As the urban landscape changes, not only does tree cover change, but also herbaceous, impervious and other surface cover types. Impervious cover, such as roads and buildings, can negatively impact the environment through increased air temperatures and heat islands (Oke, 1989, Heisler and Brazel, 2010), which consequently affects building energy use, human comfort and health, ozone production, and pollutant emissions in cities. In addition, impervious surfaces significantly affect urban hydrology (e.g., stream flow, water quality) (e.g., U.S. EPA, 1983; National Research Council, 2008).

Various land cover change analyses have been conducted using classified satellite imagery (e.g., Hansen et al., 2003; Yang et al., 2003; Lunetta et al., 2006; Schwarz et al., 2006; Parlin, 2009; U.S. EPA, 2011). These classified images have limitations due to their relatively coarse image resolution and/or inaccuracies of image classifications, which can lead to false changes due to misclassification of cover types on either map.

Photo-interpretation of high resolution images to detect cover changes has the ability to overcome these limitations, but lacks the ability to develop detailed comprehensive cover change maps. Tree cover change in U.S. cities using paired-point photo-interpretation revealed that 17 of the 20 analyzed cities had statistically significant declines and one had a statistically significant increase in tree cover

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over about a 5-year period (c. 2004–2008) (Nowak and Greenfield, 2012).

The first assessment of urban tree cover change nationally in the United States revealed that between c. 2002 and c. 2009, urban tree cover in the conterminous United States dropped by 0.2 percent, with impervious cover increasing by 2.8 percent (Nowak and Greenfield, 2012). This assessment of tree cover change in urban areas was based on a sample of 970 paired-points.

The objectives of this current study are to better address the issue of urban forest cover change across the United States to determine if urban tree cover is still declining and impervious cover increasing. This study quantifies tree, impervious and other land cover type changes in urban/community and urban areas in each of the 50 United States and the District of Columbia over a more recent 5-year period (c. 2009–2014) using random sampling of over 50,000 paired-date image points (over 100,000 total points).

Both urban and urban/community areas were analyzed because urban land is where the highest concentrations of people reside, while the broader category of urban/community land is a larger geography that includes urban land plus politically-defined areas of communities (e.g., cities, villages). Urban land in 2010 occupied 3.0% (68.0 million acres) of the United States, while urban/community land occupied 6.2% of the United States (141.0 million acres) (Nowak and Greenfield, 2018).

2. Methods

Urban and community areas were delimited using 2010 Census data and definitions. The definition of urban is primarily based on population density using the U.S. Census Bureau's (2017) definition: all territory, population, and housing units located within urbanized areas or urban clusters. Urban areas comprise a densely settled core of census tracts and/or census blocks that meet minimum population density requirements, along with adjacent territory containing non-residential urban land uses as well as territory with low population density included to link outlying densely settled territory with the densely settled core. To qualify as an urban area, the territory identified according to criteria must encompass at least 2,500 people, at least 1,500 of which reside outside institutional group quarters. The Census Bureau identifies two types of urban areas: a) Urbanized Areas of 50,000 or more people and b) Urban Clusters of at least 2,500 and less than 50,000 people (U.S. Census Bureau, 2017).

The definition of community, which includes cities, is based on jurisdictional or political boundaries delimited by U.S. Census Bureau definitions of incorporated and designated places (U.S. Census Bureau 2017). Community areas may consist of all, some, or no urban land within their boundaries (Fig. 1). Because urban land encompasses more heavily populated areas (population density-based definition) and community land has varying amounts of urban land that are recognized by their geopolitical boundaries (political definition), the category of "urban/community" was created to classify the union of these two geographically overlapping definitions where most people live.

To determine the percent tree/shrub cover (hereafter referred to as tree cover) and impervious cover change in urban/community and urban areas within the 50 United States and the District of Columbia, 1,000 randomly located paired-points were laid on Google Earth images within the urban/community areas of each state/district (Table 1). The most recent date of the image pair was determined by finding the most recent image that had high-resolution, interpretable imagery (mostly leaf-on, sub-meter resolution). The second older image paired-point was determined by finding high-resolution, interpretable images as close to five-years earlier than the recent date image. Overall, 50,492 paired-points were interpreted in urban/community areas, of which, 27,644 paired-points fell within urban areas. All states had 1,000 paired-points analyzed except for Alaska, which only had 492 paired-points analyzed due to poor resolution (uninterpretable) imagery. A trained photo-interpreter classified each point as to whether it fell on either: trees/shrubs (woody vegetation), grass or herbaceous cover, bare soil, agriculture (crop areas), water, impervious (buildings), impervious (roads), or impervious (other). The date of the image for both temporal images (i.e., most recent image and image approximately five years older than the most recent image) was also recorded (Table 1).

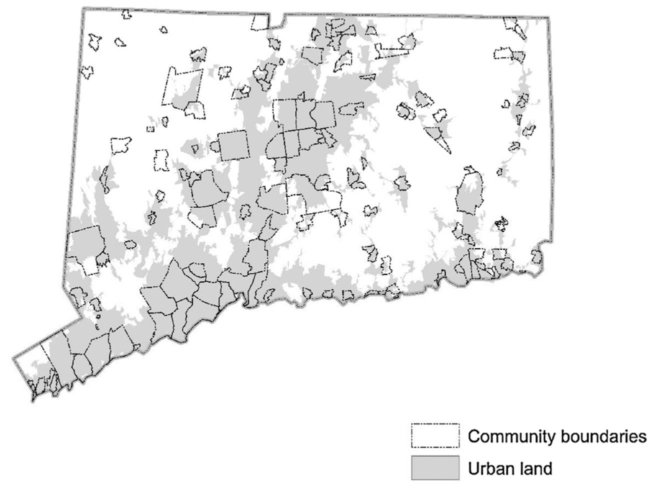

Fig. 1. Distribution of urban and community land in Connecticut (2010).

Each point was laid in the same geographic position on both sets of temporal images and paired image interpretation was conducted (i.e., interpreter classified each point pair by contrasting and classifying the image points in sequence). In cases of misregistration of the image or point, the interpreter corrected the point location to ensure the exact same location was interpreted. In addition, interpreters could correct apparent false changes due to image parallax and seasonal changes between images and record them as without change as appropriate (Nowak and Greenfield, 2012). A five-percent random sample of points was reinterpreted by another trained photo-interpreter to check for classification accuracy. Overall, the interpreters were in 100 percent agreement on the change estimates and 96 percent agreement on cover class designations. This four percent disagreement on classes does not mean that there is a four percent error as the errors tend to compensate (e.g., some tree points may be classified as grass, but also grass points are classified as trees).

Within each state, the percentage of each cover class (p) was calculated as the number of sample points (x) hitting the cover attribute divided by the total number of interpretable sample points (n) within the area of analysis ($p = x/n$). The standard error of the estimate (SE) in cover class j was calculated as $SE_j = [p_j(1 - p_j)/n]^{0.5}$(Lindgren and McElrath, 1969). This method has been used to assess canopy cover in many cities (e.g., Nowak et al., 1996, Nowak and Greenfield, 2010, 2012).

As changes were observed, it is known that cover classes are changing. However, as a cover class can both gain and lose cover through time and space, the McNemar test (Sokal and Rohlf, 2003) was used to determine if the proportion of positive and negative changes are significantly different from each other for each state (alpha level = 0.05), thereby indicating a statistically significant change. To determine if the net change was statistically significant for the entire U.S., the variance of state change estimates were weighted by the square of urban/community or urban area in each state to determine a 95-percent confidence interval around the national change estimate. If the 95-percent confidence interval (SE * 1.96) did not contain zero, the change estimate was statistically significant at alpha 0.05.

As the overall time frame of change in cover varied among locations, change in percent cover was annualized for comparative purposes among states. These annual change results were combined with state urban/community and urban areas to estimate the acres of annual tree

Table 1
Metrics on dates of imagery in urban/community and urban areas by state. Years given are average year of analysis, with range of years given in parentheses. Even though ranges between years can overlap, the image points were always analyzed in a temporal sequence to be as close to 5 years apart as possible.

	Urban/community							Urban						
State	Year 1		Year 2		Change[a]		n	Year 1		Year 2		Change[a]		n
Alabama (AL)	2007	(2006-2012)	2014	(2011-2015)	6.3	(3-9)	1,000	2008	(2006-2011)	2014	(2012-2015)	6.1	(3-9)	367
Alaska (AK)	2006	(1996-2013)	2012	(2002-2016)	6.1	(1-19)	492	2006	(2002-2011)	2012	(2010-2016)	6.0	(1-10)	57
Arizona (AZ)	2008	(2005-2013)	2014	(2010-2015)	5.6	(1-8)	1,000	2009	(2005-2013)	2014	(2010-2015)	5.2	(2-7)	238
Arkansas (AR)	2009	(2006-2010)	2013	(2010-2015)	4.8	(3-6)	1,000	2009	(2006-2010)	2014	(2010-2015)	4.7	(3-6)	373
California (CA)	2009	(2005-2011)	2014	(2011-2015)	5.0	(2-7)	1,000	2009	(2007-2011)	2014	(2013-2015)	5.0	(3-7)	546
Colorado (CO)	2007	(2006-2011)	2013	(2011-2015)	6.1	(3-9)	1,000	2007	(2006-2011)	2013	(2011-2015)	6.1	(3-9)	467
Connecticut (CT)	2008	(2006-2010)	2014	(2012-2015)	6.0	(4-8)	1,000	2008	(2006-2010)	2014	(2012-2015)	6.1	(4-8)	906
Delaware (DE)	2006	(2001-2009)	2012	(2006-2014)	5.1	(4-7)	1,000	2006	(2001-2009)	2012	(2006-2014)	5.1	(4-7)	889
Dist. Columbia (DC)	2010	(2010-2010)	2015	(2015-2015)	5.0	(5-5)	1,000	2010	(2010-2010)	2015	(2015-2015)	5.0	(5-5)	1,000
Florida (FL)	2009	(2007-2010)	2014	(2012-2015)	5.4	(4-7)	1,000	2009	(2007-2010)	2014	(2012-2015)	5.4	(4-7)	663
Georgia (GA)	2009	(2006-2010)	2014	(2012-2015)	5.0	(4-8)	1,000	2008	(2006-2011)	2014	(2012-2015)	6.1	(3-9)	648
Hawaii (HI)	2010	(2001-2013)	2015	(2012-2016)	4.7	(1-15)	1,000	2009	(2003-2013)	2015	(2013-2016)	5.0	(2-11)	319
Idaho (ID)	2008	(2004-2010)	2014	(2009-2014)	5.7	(4-9)	1,000	2008	(2004-2010)	2014	(2013-2014)	5.5	(4-9)	519
Illinois (IL)	2008	(2007-2010)	2013	(2012-2015)	5.1	(3-7)	1,000	2008	(2007-2010)	2013	(2012-2015)	5.1	(4-7)	753
Indiana (IN)	2008	(2005-2009)	2013	(2011-2014)	5.6	(5-7)	1,000	2008	(2006-2009)	2013	(2011-2014)	5.6	(5-7)	768
Iowa (IA)	2008	(2006-2010)	2013	(2011-2015)	5.0	(4-6)	1,000	2009	(2006-2010)	2014	(2011-2015)	5.0	(4-6)	423
Kansas (KS)	2009	(2006-2011)	2014	(2011-2015)	5.5	(1-8)	1,000	2009	(2006-2011)	2014	(2011-2015)	5.5	(4-8)	585
Kentucky (KY)	2008	(2005-2010)	2014	(2011-2015)	5.6	(3-8)	1,000	2008	(2005-2010)	2014	(2011-2015)	5.6	(3-7)	569
Louisiana (LA)	2009	(2007-2010)	2014	(2012-2015)	5.1	(4-7)	1,000	2009	(2007-2010)	2014	(2012-2015)	5.1	(4-7)	577
Maine (ME)	2008	(2001-2011)	2013	(2011-2014)	5.2	(3-12)	1,000	2009	(2003-2011)	2014	(2011-2014)	4.7	(3-10)	294
Maryland (MD)	2009	(2002-2011)	2014	(2011-2015)	5.1	(3-11)	1,000	2009	(2005-2011)	2014	(2011-2015)	5.1	(4-7)	759
Massachusetts (MA)	2009	(2005-2010)	2014	(2010-2015)	5.6	(4-8)	1,000	2009	(2005-2010)	2014	(2010-2015)	5.6	(4-8)	881
Michigan (MI)	2008	(2005-2011)	2014	(2011-2015)	5.9	(3-9)	1,000	2008	(2005-2011)	2014	(2011-2015)	5.7	(3-9)	784
Minnesota (MN)	2008	(2006-2010)	2014	(2011-2015)	5.2	(4-7)	1,000	2009	(2006-2010)	2014	(2011-2015)	5.1	(4-6)	360
Mississippi (MS)	2009	(2007-2011)	2014	(2012-2016)	5.0	(3-6)	1,000	2010	(2007-2011)	2015	(2013-2016)	5.0	(5-6)	428
Missouri (MO)	2010	(2007-2011)	2015	(2012-2016)	5.0	(5-5)	1,000	2008	(2007-2010)	2013	(2012-2015)	5.1	(4-7)	550
Montana (MT)	2009	(2006-2011)	2014	(2011-2016)	5.0	(5-6)	1,000	2009	(2008-2011)	2014	(2013-2016)	5.0	(5-5)	84
Nebraska (NE)	2009	(2007-2011)	2014	(2012-2016)	5.0	(5-5)	1,000	2009	(2008-2011)	2014	(2013-2016)	5.0	(5-5)	572
Nevada (NV)	2009	(2002-2011)	2014	(2009-2016)	5.6	(3-9)	1,000	2010	(2006-2011)	2015	(2013-2016)	5.2	(5-8)	209
New Hampshire (NH)	2009	(2005-2010)	2015	(2013-2015)	5.5	(4-8)	1,000	2009	(2008-2010)	2015	(2013-2015)	5.5	(4-7)	631
New Jersey (NJ)	2008	(2006-2011)	2013	(2008-2015)	5.2	(1-7)	1,000	2008	(2006-2011)	2013	(2008-2015)	5.2	(1-6)	872
New Mexico (NM)	2010	(2006-2011)	2015	(2011-2016)	5.0	(5-6)	1,000	2010	(2008-2011)	2015	(2013-2016)	5.0	(5-5)	274
New York (NY)	2008	(2003-2010)	2013	(2010-2014)	5.2	(3-8)	1,000	2008	(2003-2010)	2013	(2010-2014)	5.2	(3-8)	734
North Carolina (NC)	2010	(2006-2012)	2015	(2013-2016)	5.3	(3-7)	1,000	2010	(2008-2011)	2015	(2013-2016)	5.3	(4-7)	716
North Dakota (ND)	2009	(2005-2012)	2013	(2010-2016)	4.7	(3-7)	1,000	2009	(2005-2009)	2014	(2012-2014)	4.9	(4-7)	267
Ohio (OH)	2009	(2004-2010)	2014	(2011-2014)	5.0	(3-8)	1,000	2009	(2004-2010)	2014	(2011-2014)	5.0	(3-8)	780
Oklahoma (OK)	2009	(2006-2010)	2014	(2012-2015)	5.3	(3-8)	1,000	2010	(2006-2010)	2015	(2013-2015)	5.1	(4-7)	255
Oregon (OR)	2008	(2005-2012)	2014	(2011-2015)	5.6	(2-9)	1,000	2009	(2005-2012)	2014	(2011-2015)	5.5	(2-9)	611
Pennsylvania (PA)	2007	(2003-2010)	2013	(2011-2015)	5.5	(3-10)	1,000	2007	(2003-2010)	2013	(2011-2015)	5.5	(3-10)	778
Rhode Island (RI)	2010	(2010-2010)	2015	(2015-2015)	5.0	(5-5)	1,000	2010	(2010-2010)	2015	(2015-2015)	5.0	(5-5)	911
South Carolina (SC)	2009	(2005-2011)	2014	(2012-2015)	5.3	(3-9)	1,000	2009	(2005-2011)	2014	(2012-2015)	5.1	(3-8)	659
South Dakota (SD)	2008	(2004-2011)	2014	(2010-2015)	5.7	(3-9)	1,000	2009	(2006-2010)	2014	(2012-2015)	5.4	(3-7)	281
Tennessee (TN)	2008	(2004-2010)	2013	(2010-2015)	5.4	(3-7)	1,000	2008	(2004-2010)	2013	(2010-2014)	5.4	(3-7)	528
Texas (TX)	2009	(2005-2012)	2015	(2011-2015)	5.2	(2-7)	1,000	2010	(2006-2012)	2015	(2011-2015)	5.1	(2-7)	606
Utah (UT)	2010	(2008-2010)	2015	(2013-2015)	5.0	(5-5)	1,000	2010	(2008-2010)	2015	(2013-2015)	5.0	(5-5)	308
Vermont (VT)	2010	(2007-2010)	2015	(2012-2015)	5.0	(5-6)	1,000	2010	(2007-2010)	2015	(2012-2015)	5.0	(5-6)	465
Virginia (VA)	2009	(2007-2011)	2014	(2012-2015)	5.0	(4-6)	1,000	2009	(2007-2011)	2014	(2012-2015)	5.0	(4-6)	558
Washington (WA)	2010	(2005-2011)	2015	(2010-2015)	5.0	(4-6)	1,000	2010	(2005-2011)	2015	(2010-2015)	5.0	(4-5)	618
West Virginia (WV)	2008	(2007-2010)	2014	(2012-2015)	5.6	(4-6)	1,000	2008	(2007-2010)	2014	(2012-2015)	5.5	(4-6)	543
Wisconsin (WI)	2009	(2006-2011)	2014	(2012-2016)	5.2	(4-7)	1,000	2009	(2006-2011)	2015	(2012-2016)	5.2	(4-6)	502
Wyoming (WY)	2009	(2008-2010)	2014	(2013-2015)	5.0	(5-6)	1,000	2009	(2008-2010)	2014	(2013-2015)	5.0	(5-6)	159
Total US	2009	(1996-2013)	2014	(2002-2016)	5.3	(1-19)	50,492	2009	(2001-2013)	2014	(2006-2016)	5.3	(1-11)	27,644

n − sample size.
[a] Average number of years between paired images; range of years is given in parentheses.

and impervious cover change by state. To estimate the change in total number of trees, the acres of tree cover change was multiplied by the average number of trees per acre of tree cover in urban areas (207 trees/acre of tree cover; standard error = 34 trees/acre of tree cover) based on urban forest field data from 34 U.S. cities and states (Nowak and Greenfield, 2018). To estimate the change in ecosystem service values, the change in tree cover (acres) was multiplied by average state value ($) of benefits per acre of tree cover in urban areas related to air pollution removal, carbon sequestration, altered building energy use and altered power plant emissions (Nowak and Greenfield, 2018). These estimates were derived based on national tree cover data, urban forest field data and modeling of ecosystem services as detailed in Nowak et al. (2013, 2014, 2017).

The dollar value estimates for air pollution removal are based on health-care expenses (i.e., cost of illness and willingness to pay to avoid illness), productivity losses associated with specific adverse health events, and the value of a statistical life in the case of mortality as derived from the U.S. EPA BenMAP model (Nowak et al., 2014; Abt Associates, 2010). The dollar value estimates for carbon sequestration are based on the social cost of carbon in 2015 (US EPA 2013; Interagency Working Group, 2015). Energy values are based on state utility costs and avoided emission values are based on social costs and externality values (see Nowak et al., 2017).

The District of Columbia (DC) was also included in the analysis to

Table 2
Average percent cover among classes (c. 2009-2014) in urban/community and urban areas in the United States. Matrices illustrate how cover classes are changing between years. For example, 41.7 percent of urban/community areas remained in tree cover between years (no change), but tree cover lost 1.2 percent to other cover types (0.8 percent to grass and 0.1 percent each to building, road, other impervious and water cover) and gained 0.4 percent from previously grass cover. Overall, urban/community tree cover dropped from 42.9 percent in 2009 to 42.2 percent in 2014, but this net change was a combination of various losses and gains among cover types. Note: impervious cover is split into three categories (building, road and other).

		Urban/community									
		2014	2014	2014	2014	2014	2014	2014	2014	2009	
		Grass[a]	Tree[b]	Bldg[c]	Road[d]	Other[e]	Water	Soil	Agri.[f]	Total	SE
2009	Grass[a]	27.1	0.4	0.1	0.0	0.2	0.2	0.0	0.0	28.1	0.4
2009	Tree[b]	0.8	41.7	0.1	0.1	0.1	0.1	0.0	0.0	42.9	0.4
2009	Bldg[c]	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	4.7	0.1
2009	Road[d]	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	4.6	0.1
2009	Other[e]	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	5.2	0.1
2009	Water	0.2	0.0	0.0	0.0	0.1	4.3	0.0	0.0	4.7	0.2
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	1.6	0.2
2009	Agri.[f]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	8.2	0.2
2014	Total	28.3	42.2	4.9	4.7	5.5	4.7	1.6	8.1		
	SE	0.4	0.4	0.1	0.1	0.1	0.2	0.2	0.2		
	Net	0.2	-0.7	0.2	0.1	0.3	-0.1	0.0	-0.1		
		Urban									
2009	Grass[a]	25.3	0.3	0.2	0.1	0.3	0.2	0.0	0.0	26.4	0.3
2009	Tree[b]	0.9	38.9	0.1	0.1	0.3	0.1	0.0	0.0	40.4	0.4
2009	Bldg[c]	0.0	0.0	8.8	0.0	0.0	0.0	0.0	0.0	8.8	0.2
2009	Road[d]	0.1	0.0	0.0	7.5	0.0	0.0	0.0	0.0	7.5	0.2
2009	Other[e]	0.1	0.0	0.1	0.0	9.1	0.0	0.0	0.0	9.3	0.2
2009	Water	0.3	0.1	0.1	0.0	0.1	1.4	0.0	0.0	2.0	0.1
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.9	0.1
2009	Agri.[f]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	4.7	0.2
2014	Total	26.6	39.4	9.2	7.7	9.8	1.8	0.9	4.7		
	SE	0.3	0.4	0.2	0.2	0.2	0.1	0.1	0.2		
	Net	0.3	-1.0	0.3	0.2	0.5	-0.2	0.0	-0.1		

SE − standard error, Net − net difference between the years (2014 minus 2009).
[a] Grass/herbaceous.
[b] Tree/shrub.
[c] Impervious − building.
[d] Impervious − road.
[e] Impervious − other.
[f] Agriculture − grass or soil areas used for agriculture that likely change status during the year.

provide complete coverage of the U.S. land area. For consistent terminology, this District will be called a state from this point forward. However, the comparison of DC with states is not equitable as DC is a city with a relatively small area and is 100 percent urban land.

3. Results

3.1. Urban/community areas

Percent tree cover in urban/community areas ranged from 68.1 percent in Maine to 10.1 percent in North Dakota. Forty five states showed a net decline in tree cover with 23 states having statistically significant decreases. Overall, tree cover had a statistically significant decline from 42.9 percent to 42.2 percent (−0.7 percent), which equates to an annual net loss of 0.12 percent or 175,000 acres of tree cover per year. Most of the tree cover loss converted to grass/herbaceous (−0.8%) or impervious cover (−0.3%), while most of the tree cover gain came from grass/herbaceous areas (+0.4%) (Table 2). States with the greatest annual net percent loss in tree cover were Rhode Island and DC (−0.44%), Georgia (−0.40%), and Alabama and Nebraska (−0.32% each). States with the greatest annual net loss in tree cover were Georgia (−18,830 ac/yr), Florida (−18,060 ac/yr) and Alabama (−12,890 ac/yr) (Table 3, Fig. 2). The net loss in total number of trees per year nationally is estimated at 36.2 million.

Percent impervious cover ranged from 46.3 percent in DC to 1.0 percent in Alaska. Forty seven states showed a net increase in impervious cover with 34 states having statistically significant increases. Overall, impervious cover had a statistically significant increase from 14.5 percent to 15.1 percent (+0.6 percent), which equates to an annual net increase of 0.12 percent or 167,000 acres of impervious cover per year. There was no impervious cover loss between the years. Impervious cover gain came mainly from grass/herbaceous or tree cover (+0.3% each) (Table 2). States with the greatest annual net percent increase in impervious cover were Delaware (0.28%), Iowa (0.26%), and Colorado, Kansas and Ohio (0.24% each). States with the greatest annual net increase in impervious cover were Texas (17,590 ac/yr), Florida (13,900 ac/yr) and Ohio (8,670 ac/yr) (Table 4). Overall national changes to other cover classes were relatively minor with no net change in soil (1.6 percent) or water cover (4.7 percent), a 0.1 percent decrease in agriculture (8.2–8.1 percent) and a 0.2 percent gain in grass cover (28.1–28.3 percent) (Table 2).

3.2. Urban areas

Percent tree cover in urban areas ranged from 61.6 percent in Connecticut to 10.1 percent in North Dakota. Forty four states showed a decline in tree cover with 23 states having statistically significant decreases. Overall, tree cover had a statistically significant decline from 40.4 percent to 39.4 percent (-1.0 percent), which equates to an annual loss of 0.20 percent or 138,000 acres of tree cover per year. Most of the tree cover loss was to grass/herbaceous (−0.9%) or impervious (−0.5%) surfaces, while most of the tree cover gain came from grass/herbaceous areas (+0.3%) (Table 2). States with the greatest annual statistically significant percent loss in tree cover were Oklahoma

Table 3
Change in urban/community tree cover by state.

State	Years	Year 1 %	Year 1 SE	Year 2 %	Year 2 SE	Change between years %[a]	Change between years %/yr[b]	Change between years Acres/yr[c]
Alabama	(2007-2014)	51.7	1.6	49.7	1.6	-2.0*	-0.32	-12,890
Alaska	(2006-2012)	48.8	2.3	48.8	2.3	0.0	0.00	0
Arizona	(2008-2014)	30.8	1.5	30.2	1.5	-0.6	-0.11	-6,190
Arkansas	(2009-2013)	47.3	1.6	46.9	1.6	-0.4	-0.08	-1,430
California	(2009-2014)	39.4	1.5	39.0	1.5	-0.4	-0.08	-7,890
Colorado	(2007-2013)	21.8	1.3	21.6	1.3	-0.2	-0.03	-610
Connecticut	(2008-2014)	63.0	1.5	62.7	1.5	-0.3	-0.05	-640
Delaware	(2006-2011)	35.8	1.5	35.3	1.5	-0.5	-0.10	-290
District of Columbia	(2010-2015)	36.1	1.5	33.9	1.5	-2.2*	-0.44	-170
Florida	(2009-2014)	49.0	1.6	47.6	1.6	-1.4*	-0.26	-18,060
Georgia	(2009-2014)	63.4	1.5	61.4	1.5	-2.0*	-0.40	-18,830
Hawaii	(2010-2015)	50.2	1.6	50.1	1.6	-0.1	-0.02	-150
Idaho	(2008-2014)	14.2	1.1	13.8	1.1	-0.4	-0.07	-420
Illinois	(2008-2013)	30.9	1.5	29.9	1.4	-1.0*	-0.20	-6,910
Indiana	(2008-2013)	30.8	1.5	30.1	1.5	-0.7*	-0.13	-2,790
Iowa	(2008-2013)	21.9	1.3	20.9	1.3	-1.0*	-0.20	-2,870
Kansas	(2009-2014)	31.0	1.5	30.3	1.5	-0.7*	-0.13	-1,450
Kentucky	(2008-2014)	39.8	1.5	38.9	1.5	-0.9*	-0.16	-2,500
Louisiana	(2009-2014)	47.6	1.6	47.3	1.6	-0.3	-0.06	-1,330
Maine	(2008-2013)	68.4	1.5	68.1	1.5	-0.3	-0.06	-510
Maryland	(2009-2014)	53.4	1.6	53.1	1.6	-0.3	-0.06	-1,020
Massachusetts	(2008-2014)	59.7	1.6	58.4	1.6	-1.3*	-0.23	-4,930
Michigan	(2008-2014)	46.7	1.6	45.9	1.6	-0.8*	-0.13	-3,810
Minnesota	(2009-2014)	46.7	1.6	46.7	1.6	0.0	0.00	0
Mississippi	(2009-2014)	52.4	1.6	52.7	1.6	0.3	0.06	1,000
Missouri	(2010-2015)	40.1	1.5	39.7	1.5	-0.4	-0.08	-1,860
Montana	(2009-2014)	37.1	1.5	37.2	1.5	0.1	0.02	470
Nebraska	(2009-2014)	20.4	1.3	18.8	1.2	-1.6*	-0.32	-1,800
Nevada	(2009-2014)	27.0	1.4	26.8	1.4	-0.2	-0.04	-900
New Hampshire	(2009-2015)	64.4	1.5	63.0	1.5	-1.4*	-0.25	-1,650
New Jersey	(2008-2013)	48.4	1.6	47.8	1.6	-0.6*	-0.12	-2,590
New Mexico	(2010-2015)	21.9	1.3	22.1	1.3	0.2	0.04	790
New York	(2008-2013)	53.4	1.6	52.4	1.6	-1.0*	-0.19	-6,720
North Carolina	(2010-2015)	54.8	1.6	54.2	1.6	-0.6	-0.11	-4,510
North Dakota	(2009-2013)	10.7	1.0	10.1	1.0	-0.6	-0.13	-590
Ohio	(2009-2014)	39.2	1.5	38.2	1.5	-1.0*	-0.20	-7,230
Oklahoma	(2009-2014)	35.6	1.5	34.0	1.5	-1.6*	-0.30	-9,710
Oregon	(2008-2014)	35.6	1.5	33.9	1.5	-1.7*	-0.30	-3,450
Pennsylvania	(2007-2013)	46.8	1.6	46.2	1.6	-0.6	-0.11	-4,320
Rhode Island	(2010-2015)	54.5	1.6	52.3	1.6	-2.2*	-0.44	-1,260
South Carolina	(2009-2014)	54.8	1.6	53.6	1.6	-1.2	-0.23	-5,190
South Dakota	(2008-2014)	13.9	1.1	13.6	1.1	-0.3	-0.05	-280
Tennessee	(2008-2013)	48.4	1.6	46.9	1.6	-1.5*	-0.27	-9,060
Texas	(2009-2015)	28.9	1.4	28.3	1.4	-0.6*	-0.11	-10,180
Utah	(2010-2015)	16.7	1.2	16.6	1.2	-0.1	-0.02	-360
Vermont	(2010-2015)	57.5	1.6	56.6	1.6	-0.9*	-0.18	-370
Virginia	(2009-2014)	51.5	1.6	51.0	1.6	-0.5	-0.10	-2,970
Washington	(2009-2014)	42.3	1.6	41.6	1.6	-0.7	-0.14	-3,350
West Virginia	(2008-2014)	61.9	1.5	61.3	1.5	-0.6	-0.11	-790
Wisconsin	(2009-2014)	38.8	1.5	38.3	1.5	-0.5*	-0.10	-2,340
Wyoming	(2009-2014)	15.8	1.2	15.8	1.2	0.0	0.00	0
Total US	(2009-2014)	42.9	0.4	42.2	0.4	-0.7*	-0.12	-174,940

SE = standard error.
[a] Change in percent tree cover between years.
[b] Annualized change in percent tree cover between years.
[c] Annualized change in tree cover (in acres) between years.
* Statistically significant change at alpha = 0.05.

(−0.92%), DC (−0.44%), Rhode Island (−0.40%) and Oregon (−0.38%). States with the greatest annual loss in tree cover were Florida (−15,510 ac/yr), Georgia (−11,300 ac/yr) and Texas (−10,610 ac/yr) (Table 5, Fig. 3). Total net loss of benefits associated with air pollution removal, carbon sequestration, and altered building energy use and consequent altered power plant emissions is estimated at $96 million per year (Table 5). The net loss in total number of trees per year is estimated at 28.5 million.

Percent impervious cover in urban areas ranged from 46.4 percent in Nevada to 16.3 percent in New Hampshire. Forty nine states showed an increase in impervious cover with 23 states having statistically significant increases. Overall, impervious cover had a statistically significant increase from 25.6 percent to 26.6 percent (+1.0 percent), which equates to an annual increase of 0.19 percent or 131,000 acres of impervious cover per year. Most of the impervious cover loss converted to grass/herbaceous (−0.2%) and impervious cover gain came mainly from grass/herbaceous (+0.6%) and tree (+0.5%) cover (Table 2). States with the greatest annual percent increase in impervious cover were Oklahoma (0.54%) and Iowa and Utah (0.52% each). States with the greatest annual increase in impervious cover were Florida (14,570

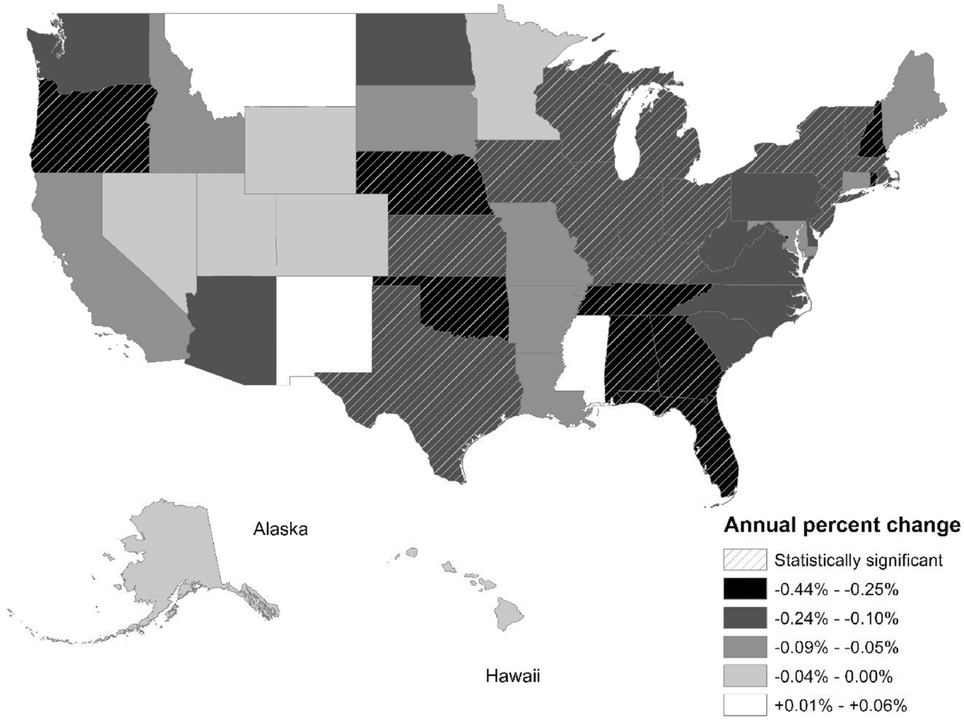

Fig. 2. Tree cover change in urban/community areas by state.

ac/yr), Texas (12,290 ac/yr) and Ohio (10,180 ac/yr) (Table 6). Overall national changes to other cover classes were relatively minor with no net change in soil (0.9 percent) or agriculture cover (4.7 percent), a 0.2 percent decrease in water (2.0 to 1.8 percent) and a 0.2 percent gain in grass cover (26.4 to 26.6 percent) (Table 2). A detailed matrix of change among the cover classes for each state is given in Table 7.

4. Discussion

It is clear from the results that tree cover in both urban/community and urban-only areas in the United States is on the decline, which equates to the loss of hundreds of thousands of acres of tree cover and millions of trees per year. With this loss comes the loss of associated benefits to society, which is conservatively estimated at about $100 million per year for just four known benefits (i.e., pollution removal, carbon sequestration, reduced energy and reduced power plant emissions). Several other benefits (e.g., reduced storm water runoff, air temperature and ultraviolet radiation, improved social well-being, etc.) remain to be quantified as well as various costs (e.g., pollen, planting and maintenance costs). However, maintenance may be a spurious cost associated with trees in cities, particularly in forested regions, because if the trees were not there, other costs would be substituted (e.g., mowing, maintaining impervious surfaces) to prevent vegetation from becoming established. That is, urban landscapes need to be maintained regardless of whether trees are there or not. The question regarding maintenance costs is not what the absolute cost is, but rather what is the cost compared to alternative costs (e.g., mowing). More research is needed on these topics.

While tree cover is on the decline, impervious cover is increasing. Some of this increase in impervious cover is due to the loss of tree cover as impervious cover beneath trees is exposed when trees are removed. About 40 percent of new impervious came from areas that were previously treed. The conversion of tree to impervious cover comes from a mix of new development (trees removed to create new impervious surfaces) and the exposure of existing impervious surfaces when trees are removed. Greater than 60 percent of losses in tree cover converted to grass/herbaceous cover. Estimates of impervious cover are conservative as tree canopies cover some impervious area and as tree cover increases, the probability of detecting impervious cover decreases.

This conversion of tree cover to grass or impervious cover means a loss of function leaf surface area and consequent benefits associated with leaf area. The loss of leaf area and expansion of impervious surfaces can enhance problems associated with increased air temperatures and storm water runoff. The pattern of decreasing tree cover and increasing impervious surfaces indicate a synergistic pattern of loss of environmental benefits (e.g., air temperature cooling by trees) and increased environmental issues (e.g., air temperature increases associated with impervious surfaces).

The loss in percent tree cover was greater in urban areas (−1.0 percent) than in urban/community areas (−0.7 percent), most likely due to the greater population density and urbanization pressures. Both urban/community and urban-only areas had 23 states that had statistically significant declines in tree cover with 19 states having statistically significant declines in both urban/community and urban area. However, urban areas had a lower sample size and thus less power to detect statistically significant changes. An increased sample size would increase the ability to statistically detect smaller net changes, but at increased cost. A sample size of 1,000 points was able to detect statistically significant changes down to 0.4%, but the detection depends upon how much change is actually occurring in an area.

The latest projections reveal that urban land in the conterminous United States is projected to increase from 3.6% (67.6 million acres) in 2010 to 8.6% (163.1 million acres) in 2060. This projected increase is 95.5 million acres over 50 years and is an increase in urban land larger than the state of Montana (Nowak and Greenfield, 2018). Based on data from circa 2005, overall tree cover urban areas in the conterminous United States averaged 35.0 percent and tree cover in urban/community areas averaged 35.8 percent (Nowak and Greenfield, 2012). Overall urban tree cover in the conterminous United States c. 2014 averaged 39.3 percent with tree cover in the broader urban/community areas averaging 41.1 percent. The apparent increase in urban (35 to 39%) and urban/community tree cover (36–41%) between 2005 and 2014 is partially due to the change in the amount of urban land

Table 4
Change in urban/community impervious cover by state.

State	Years	Year 1		Year 2		Change between years		
		%	SE	%	SE	%[a]	%/yr[b]	Acres/yr[c]
Alabama	(2007-2014)	11.7	1.0	12.6	1.0	0.9*	0.14	5,640
Alaska	(2006-2012)	1.0	0.5	1.0	0.5	0.0	0.00	0
Arizona	(2008-2014)	9.8	0.9	10.3	1.0	0.5*	0.09	5,060
Arkansas	(2009-2013)	10.6	1.0	11.4	1.0	0.8*	0.17	3,030
California	(2009-2014)	25.7	1.4	26.0	1.4	0.3	0.06	5,920
Colorado	(2007-2013)	19.7	1.3	21.2	1.3	1.5*	0.24	4,870
Connecticut	(2008-2014)	16.4	1.2	16.8	1.2	0.4	0.07	900
Delaware	(2006-2011)	20.0	1.3	21.4	1.3	1.4*	0.28	820
District of Columbia	(2010-2015)	45.4	1.6	46.3	1.6	0.9*	0.18	70
Florida	(2009-2014)	14.5	1.1	15.6	1.1	1.1*	0.20	13,900
Georgia	(2009-2014)	12.5	1.0	13.2	1.1	0.7	0.14	6,590
Hawaii	(2010-2015)	10.1	1.0	10.8	1.0	0.7*	0.15	1,130
Idaho	(2008-2014)	20.9	1.3	21.9	1.3	1.0*	0.17	1,030
Illinois	(2008-2013)	22.2	1.3	23.2	1.3	1.0*	0.20	6,910
Indiana	(2008-2013)	21.6	1.3	22.8	1.3	1.2*	0.21	4,510
Iowa	(2008-2013)	17.4	1.2	18.7	1.2	1.3*	0.26	3,730
Kansas	(2009-2014)	20.8	1.3	22.1	1.3	1.3*	0.24	2,670
Kentucky	(2008-2014)	16.5	1.2	17.6	1.2	1.1*	0.20	3,130
Louisiana	(2009-2014)	12.8	1.1	13.2	1.1	0.4*	0.08	1,770
Maine	(2008-2013)	7.3	0.8	7.3	0.8	0.0	0.00	0
Maryland	(2009-2014)	17.8	1.2	18.2	1.2	0.4	0.08	1,360
Massachusetts	(2008-2014)	16.1	1.2	16.3	1.2	0.2	0.04	860
Michigan	(2008-2014)	20.6	1.3	21.2	1.3	0.6*	0.10	2,930
Minnesota	(2009-2014)	11.1	1.0	11.5	1.0	0.4*	0.08	2,360
Mississippi	(2009-2014)	11.7	1.0	12.2	1.0	0.5	0.10	1,670
Missouri	(2010-2015)	18.5	1.2	18.9	1.2	0.4	0.08	1,860
Montana	(2009-2014)	6.1	0.8	6.0	0.8	-0.1	-0.02	-470
Nebraska	(2009-2014)	27.2	1.4	28.2	1.4	1.0*	0.20	1,130
Nevada	(2009-2014)	11.9	1.0	12.9	1.1	1.0*	0.18	4,050
New Hampshire	(2009-2015)	11.1	1.0	11.8	1.0	0.7*	0.13	860
New Jersey	(2008-2013)	24.0	1.4	24.3	1.4	0.3	0.06	1,290
New Mexico	(2010-2015)	11.5	1.0	12.1	1.0	0.6*	0.12	2,380
New York	(2008-2013)	18.9	1.2	19.5	1.3	0.6*	0.12	4,250
North Carolina	(2010-2015)	15.6	1.1	16.2	1.2	0.6	0.11	4,510
North Dakota	(2009-2013)	14.6	1.1	15.5	1.1	0.9*	0.19	860
Ohio	(2009-2014)	19.5	1.3	20.7	1.3	1.2*	0.24	8,670
Oklahoma	(2009-2014)	9.5	0.9	10.5	1.0	1.0*	0.19	6,150
Oregon	(2008-2014)	20.7	1.3	21.7	1.3	1.0*	0.18	2,070
Pennsylvania	(2007-2013)	18.7	1.2	19.6	1.3	0.9*	0.16	6,290
Rhode Island	(2010-2015)	21.3	1.3	22.0	1.3	0.7*	0.14	400
South Carolina	(2009-2014)	12.0	1.0	12.4	1.0	0.4	0.08	1,800
South Dakota	(2008-2014)	12.2	1.0	12.4	1.0	0.2	0.03	170
Tennessee	(2008-2013)	12.4	1.0	13.2	1.1	0.8*	0.15	5,030
Texas	(2009-2015)	22.8	1.3	23.8	1.3	1.0*	0.19	17,590
Utah	(2010-2015)	12.5	1.0	13.6	1.1	1.1*	0.22	3,920
Vermont	(2010-2015)	12.2	1.0	12.7	1.1	0.5	0.10	210
Virginia	(2009-2014)	15.1	1.1	15.9	1.2	0.8*	0.16	4,760
Washington	(2009-2014)	19.5	1.3	20.4	1.3	0.9*	0.18	4,310
West Virginia	(2008-2014)	18.1	1.2	18.6	1.2	0.5	0.09	650
Wisconsin	(2009-2014)	20.9	1.3	21.6	1.3	0.7*	0.14	3,280
Wyoming	(2009-2014)	6.9	0.8	6.9	0.8	0.0	0.00	0
Total US	(2009-2014)	14.5	0.2	15.1	0.2	0.6*	0.12	166,870

SE = standard error.
[a] Change in percent impervious cover between years.
[b] Annualized change in percent impervious cover between years.
[c] Annualized change in impervious cover (in acres) between years.
* Statistically significant change at alpha = 0.05.

between 2000 and 2010 (i.e., the assessments were based on different urban land areas). Because most urban areas are within forested regions, as urban land expands overall urban tree cover will increase as urban land consumes formerly rural lands with existing tree cover. In addition, percent tree cover could increase due to these additional formerly-rural trees, but more research is needed regarding factors affecting overall urban tree cover change. Thus, while the process of expanding urbanization tends to increase tree cover in urban areas overall, established urbanized areas are losing tree cover.

In urban areas, the loss of tree cover is due to many factors. These factors include losses due to development, old age, storms, insects and diseases, land owner choices and fire. On the other hand, tree cover is expanding through tree growth, planting and natural regeneration. While natural regeneration is a strong force in many U.S. cities (Nowak, 2012) and various tree planting programs and efforts exist (e.g., City of New York, 2011), the loss of tree cover has been exceeding tree cover gains in most states. Recent planting efforts will see greater gains in tree cover in the future as the newly planted trees grow in size, assuming that these trees continue to live. Early tree care can help increase young tree survival (e.g., Roman et al., 2014). Tree cover in urban/community

Table 5
Change in urban tree cover by state.

State	Years	Year 1		Year 2		Change between years			
		%	SE	%	SE	%[a]	%/yr[b]	Ac/yr[c]	$x1000/yr[d]
Alabama	(2008-2014)	44.1	2.6	42.2	2.6	-1.9	-0.32	-4,470	-2,081
Alaska	(2005-2012)	49.1	6.6	47.4	6.6	-1.8	-0.25	-420	na
Arizona	(2009-2014)	27.3	2.9	26.1	2.8	-1.3	-0.24	-3,360	-2,210
Arkansas	(2009-2014)	47.7	2.6	46.1	2.6	-1.6*	-0.34	-2,390	-1,144
California	(2009-2014)	31.5	2.0	31.5	2.0	0.0	0.00	0	0
Colorado	(2007-2013)	17.6	1.8	17.6	1.8	0.0	0.00	0	0
Connecticut	(2008-2014)	61.9	1.6	61.6	1.6	-0.3	-0.06	-700	-325
Delaware	(2007-2012)	35.8	1.6	35.1	1.6	-0.7	-0.13	-340	-391
District of Columbia	(2010-2015)	36.1	1.5	33.9	1.5	-2.2*	-0.44	-170	na
Florida	(2009-2014)	43.6	1.9	41.8	1.9	-1.8*	-0.33	-15,510	-14,843
Georgia	(2009-2014)	60.6	1.9	58.8	1.9	-1.9*	-0.37	-11,300	-5,287
Hawaii	(2009-2015)	41.4	2.8	41.7	2.8	0.3	0.10	250	na
Idaho	(2008-2014)	14.1	1.5	13.1	1.5	-1.0	-0.17	-540	-662
Illinois	(2008-2013)	32.1	1.7	31.3	1.7	-0.8	-0.16	-4,040	-3,655
Indiana	(2008-2013)	32.2	1.7	31.4	1.7	-0.8*	-0.14	-2,260	-1,929
Iowa	(2009-2014)	28.8	2.2	27.2	2.2	-1.7*	-0.33	-2,010	-1,905
Kansas	(2009-2014)	35.7	2.0	34.7	2.0	-1.0*	-0.19	-1,180	-1,269
Kentucky	(2008-2014)	37.1	2.0	35.7	2.0	-1.4*	-0.26	-2,340	-2,242
Louisiana	(2009-2014)	45.9	2.1	44.4	2.1	-1.6*	-0.31	-3,930	-3,268
Maine	(2009-2014)	59.2	2.9	58.5	2.9	-0.7	-0.14	-320	-147
Maryland	(2009-2014)	52.7	1.8	52.2	1.8	-0.5	-0.10	-1,280	-1,381
Massachusetts	(2008-2014)	58.5	1.7	57.1	1.7	-1.4*	-0.24	-4,550	-2,579
Michigan	(2008-2014)	43.5	1.8	42.5	1.8	-1.0*	-0.23	-5,310	-3,450
Minnesota	(2009-2014)	46.4	2.6	46.4	2.6	0.0	0.00	0	0
Mississippi	(2010-2015)	46.5	2.4	45.3	2.4	-1.2	-0.23	-1,640	-979
Missouri	(2010-2015)	39.8	2.1	39.1	2.1	-0.7	-0.15	-1,970	-1,740
Montana	(2009-2014)	23.8	4.6	21.4	4.5	-2.4	-0.48	-910	-476
Nebraska	(2009-2014)	21.9	1.7	20.5	1.7	-1.4*	-0.28	-940	-1,008
Nevada	(2010-2015)	13.4	2.4	12.9	2.3	-0.5	-0.09	-440	-304
New Hampshire	(2009-2015)	57.4	2.0	56.3	2.0	-1.1*	-0.20	-820	-225
New Jersey	(2008-2013)	46.7	1.7	46.1	1.7	-0.6	-0.11	-2,060	-1,371
New Mexico	(2010-2015)	16.8	2.3	16.8	2.3	0.0	0.00	0	0
New York	(2008-2013)	49.9	1.8	48.6	1.8	-1.2*	-0.24	-6,310	-4,941
North Carolina	(2010-2015)	52.9	1.9	52.4	1.9	-0.6	-0.10	-2,950	-1,350
North Dakota	(2009-2014)	11.2	1.9	10.1	1.8	-1.1	-0.23	-270	-166
Ohio	(2009-2014)	39.0	1.7	37.6	1.7	-1.4*	-0.36	-10,180	-9,310
Oklahoma	(2010-2015)	29.0	2.8	24.3	2.7	-4.7*	-0.92	-7,700	-3,840
Oregon	(2009-2014)	32.9	1.9	30.8	1.9	-2.1*	-0.38	-2,690	-1,681
Pennsylvania	(2007-2013)	41.4	1.8	40.7	1.8	-0.6	-0.12	-3,620	-3,150
Rhode Island	(2010-2015)	52.6	1.7	50.6	1.7	-2.0*	-0.40	-1,020	-694
South Carolina	(2009-2014)	51.1	1.9	49.8	1.9	-1.4*	-0.27	-4,110	-2,092
South Dakota	(2009-2014)	18.1	2.3	18.5	2.3	0.4	0.07	100	63
Tennessee	(2008-2013)	43.0	2.2	41.1	2.1	-1.9*	-0.35	-6,500	-3,208
Texas	(2009-2015)	27.7	1.8	26.7	1.8	-1.0*	-0.19	-10,610	-6,665
Utah	(2010-2015)	15.3	2.0	14.9	2.0	-0.3	-0.06	-350	-215
Vermont	(2010-2015)	50.8	2.3	49.2	2.3	-1.5*	-0.30	-300	-124
Virginia	(2009-2014)	46.4	2.1	45.2	2.1	-1.3*	-0.25	-4,270	-2,486
Washington	(2010-2015)	35.3	1.9	35.1	1.9	-0.2	-0.03	-460	-280
West Virginia	(2008-2014)	50.5	2.1	49.7	2.1	-0.7	-0.13	-530	-251
Wisconsin	(2009-2015)	28.3	2.0	27.7	2.0	-0.6	-0.11	-1,320	-854
Wyoming	(2009-2014)	11.3	2.5	11.9	2.6	0.6	0.13	160	69
Total US	(2009-2014)	40.4	0.4	39.4	0.4	-1.0*	-0.20	-137,910	-96,046[e]

SE = standard error.
na – not analyzed.
[a] change in percent tree cover between years.
[b] annualized change in percent tree cover between years.
[c] annualized change in tree cover (in acres) between years.
[d] annualized change in ecosystem service values (in thousands of dollars) from air pollution removal, energy conservation, carbon sequestration and avoided emissions (derived from Nowak and Greenfield, 2018).
[e] exclusive of Alaska, Hawaii and the District of Columbia.
* statistically significant change at alpha = 0.05.

areas is decreasing at a rate of about 0.12 percent of land area per year and 0.20 percent per land area per year in urban areas. Relative to the amount of tree cover, these losses equate to a loss of about 0.3 percent of the existing tree cover in urban/community areas per year and 0.5 percent per year in urban areas.

Urban tree cover is a consequence of many natural (e.g., regeneration, growth) and anthropogenic (e.g., development, planting, tree removal) forces that are in constant motion and perpetually altering the forest structure. To sustain or enhance tree cover, the forces that increase cover (e.g., planting, regeneration, crown growth) should be equal to or greater than forces that decrease tree cover. Given that the forces that decrease canopy cover are currently dominating the

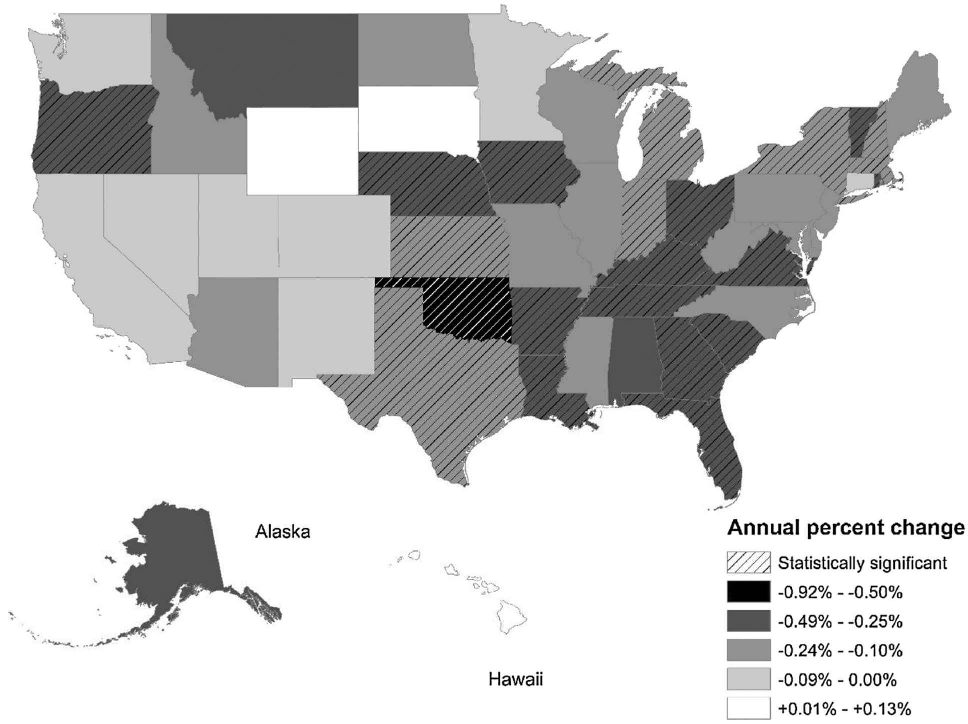

Fig. 3. Tree cover change in urban areas by state.

process of change, management efforts to minimize the loss of existing trees would likely be the most beneficial in efforts to sustain or enhance tree cover. Enhancing planting or regeneration rates would also be beneficial in stabilizing or reversing this trend, but newly established trees will take time to reach their potential and often have relatively high mortality rates (e.g., Nowak et al., 2004, Roman et al., 2013). If the goal is to sustain or enhance tree cover, current tree losses need to be reduced and/or new tree establishment rates increased. By stabilizing or enhancing tree cover, the current loss of environmental and human health benefits associated with trees can be halted or reversed.

The paired digital image analysis offers a relatively quick, easy and cost-effective means to assess cover change, but it does have some limitations. Although Google offers high-resolution imagery in many parts of the world, paired image analysis with Google images are limited by the variation in image dates and image resolution. The potential for date variation among images requires interpreters to check the date of each image, which is time consuming. However, by recording dates, average annual rates of change can be calculated, enabling comparison among areas. For analysis in the United States, interpretable (sub-meter resolution) imagery in urban/community areas was available in all states except Alaska, where only 49 percent of the points could be interpreted.

Although the images were mostly sub-meter resolution, differences in image resolution between the years could affect the ability to detect small trees (i.e., higher resolution images increase the ability to detect small trees). If the image resolution is the same or differs randomly between years, then the probability of missing small trees would be equal between years. However, if image resolution increases substantially between years (e.g., due to better imaging technology or lower costs), then the probability of detecting small trees with crown widths less than 1 meter would be greater in the second year. If this is the case, then the canopy loss estimates would be conservative as more tree cover would be detected in the second year. It is not known if image resolution increases substantially between the years.

The estimated number of trees lost due to decreases in tree cover is a first-order estimate derived from average tree density per unit of tree cover in urban areas. This tree loss estimate may be excessive as much of the tree cover loss may be due to the loss of mature trees that could have a lower tree density per unit canopy than the average urban forest. Conversely, if most of the tree loss occurred in forested stands, the tree loss estimate would likely be conservative. Further research is needed to understand the composition and size class distribution of the canopy loss.

While cover maps have inherent inaccuracies due to classification errors, photo-interpretation can also have classification errors due to interpreter error, but proper training and testing can minimize these errors. The paired photo-interpretation method offers a cost effective means to assess change (on average, about 60 paired points were interpreted per hour), but does not produce a detailed map of cover attributes or cover change across a city.

Measuring land cover types through time with fixed location points can provide a cost-effective and accurate means to monitor changing landscape cover across the globe within areas with high resolution and cloud free imagery. Monitoring of urban forest change can also be conducted through the remeasurement of permanent field plots. In the United States, the U.S. Forest Service Forest Inventory and Analysis program has started to implement, in partnership with states and cities, long-term urban forest monitoring. This program measures urban forest field data annually to assess urban forest structure, benefits and values, and changes in structure, benefits and values through time. Currently, 26 cities were monitored in 2017 with new cities to be added to the monitoring program in the next few years (US Forest Service, 2016).

Recent monitoring of change is showing a decline in urban/community and urban tree cover in the United States. Future monitoring can help determine if this trend will continue. By understanding landscape changes, management plans can be devised to alter these changes, if needed, to help sustain healthy and desired landscapes to enhance human health and environmental quality for current and future generations.

5. Conclusion

Tree cover in U.S. urban/community and urban areas has declined in recent years, while impervious cover has increased. This trend will

Table 6
Change in urban impervious cover by state.

State	Years	Year 1		Year 2		Change between years		
		%	SE	%	SE	%[a]	%/yr[b]	Acres/yr[c]
Alabama	(2008-2014)	22.1	2.2	23.4	2.2	1.4	0.23	3,190
Alaska	(2005-2012)	31.6	6.2	33.3	6.2	1.8	0.25	420
Arizona	(2009-2014)	33.2	3.1	33.6	3.1	0.4	0.08	1,120
Arkansas	(2009-2014)	19.6	2.1	20.6	2.1	1.1*	0.23	1,620
California	(2009-2014)	42.5	2.1	43.0	2.1	0.5	0.11	5,760
Colorado	(2007-2013)	35.3	2.2	37.0	2.2	1.7*	0.28	2,740
Connecticut	(2008-2014)	17.7	1.3	18.1	1.3	0.4	0.07	820
Delaware	(2007-2012)	21.3	1.4	22.9	1.4	1.7*	0.33	860
District of Columbia	(2010-2015)	45.4	1.6	46.3	1.6	0.9*	0.18	70
Florida	(2009-2014)	20.7	1.6	22.3	1.6	1.7*	0.31	14,570
Georgia	(2009-2014)	16.4	1.5	16.7	1.5	0.3	0.06	1,830
Hawaii	(2009-2015)	25.7	2.4	27.3	2.5	1.6*	0.48	1,200
Idaho	(2008-2014)	35.1	2.1	36.8	2.1	1.7*	0.31	990
Illinois	(2008-2013)	27.0	1.6	28.2	1.6	1.2*	0.24	6,060
Indiana	(2008-2013)	25.0	1.6	26.4	1.6	1.4*	0.25	4,040
Iowa	(2009-2014)	27.4	2.2	30.0	2.2	2.6*	0.52	3,170
Kansas	(2009-2014)	27.9	1.9	29.2	1.9	1.4*	0.25	1,560
Kentucky	(2008-2014)	24.3	1.8	25.7	1.8	1.4*	0.26	2,340
Louisiana	(2009-2014)	19.6	1.7	20.1	1.7	0.5	0.10	1,270
Maine	(2009-2014)	17.0	2.2	17.0	2.2	0.0	0.00	0
Maryland	(2009-2014)	21.3	1.5	21.9	1.5	0.5	0.10	1,280
Massachusetts	(2008-2014)	18.0	1.3	18.4	1.3	0.3	0.06	1,140
Michigan	(2008-2014)	23.7	1.5	24.5	1.5	0.8*	0.17	3,930
Minnesota	(2009-2014)	23.1	2.2	23.3	2.2	0.3	0.05	550
Mississippi	(2010-2015)	19.6	1.9	21.0	2.0	1.4*	0.28	2,000
Missouri	(2010-2015)	26.7	1.9	27.6	1.9	0.9	0.18	2,370
Montana	(2009-2014)	34.5	5.2	34.5	5.2	0.0	0.00	0
Nebraska	(2009-2014)	33.7	2.0	35.0	2.0	1.2	0.24	800
Nevada	(2010-2015)	44.5	3.4	46.4	3.4	1.9	0.36	1,760
New Hampshire	(2009-2015)	15.5	1.4	16.3	1.5	0.8	0.14	580
New Jersey	(2008-2013)	26.3	1.5	26.6	1.5	0.3	0.07	1,310
New Mexico	(2010-2015)	31.8	2.8	32.8	2.8	1.1	0.22	1,170
New York	(2008-2013)	23.7	1.6	24.5	1.6	0.8*	0.16	4,210
North Carolina	(2010-2015)	18.3	1.4	18.9	1.5	0.6	0.10	2,950
North Dakota	(2009-2014)	33.3	2.9	35.6	2.9	2.2	0.46	540
Ohio	(2009-2014)	22.7	1.5	24.1	1.5	1.4*	0.36	10,180
Oklahoma	(2010-2015)	27.5	2.8	30.2	2.9	2.7*	0.54	4,520
Oregon	(2009-2014)	29.3	1.8	30.9	1.9	1.6*	0.29	2,050
Pennsylvania	(2007-2013)	22.5	1.5	23.5	1.5	1.0*	0.19	5,730
Rhode Island	(2010-2015)	22.9	1.4	23.5	1.4	0.5	0.11	280
South Carolina	(2009-2014)	16.2	1.4	16.8	1.5	0.6	0.12	1,830
South Dakota	(2009-2014)	25.6	2.6	26.3	2.6	0.7	0.13	190
Tennessee	(2008-2013)	18.8	1.7	20.1	1.7	1.3*	0.24	4,460
Texas	(2009-2015)	32.2	1.9	33.3	1.9	1.2*	0.22	12,290
Utah	(2010-2015)	34.1	2.7	36.7	2.7	2.6*	0.52	3,020
Vermont	(2010-2015)	18.1	1.8	18.9	1.8	0.9	0.17	170
Virginia	(2009-2014)	22.8	1.8	23.8	1.8	1.1*	0.22	3,760
Washington	(2010-2015)	27.5	1.8	28.5	1.8	1.0	0.19	2,890
West Virginia	(2008-2014)	26.9	1.9	27.4	1.9	0.6	0.10	410
Wisconsin	(2009-2015)	32.7	2.1	33.3	2.1	0.6	0.11	1,320
Wyoming	(2009-2014)	27.0	3.5	27.7	3.5	0.6	0.13	160
Total US	(2009-2014)	25.6	0.4	26.6	0.4	1.0*	0.19	131,480

SE = standard error.
[a] Change in percent impervious cover between years.
[b] Annualized change in percent impervious cover between years.
[c] Annualized change in impervious cover (in acres) between years.
* Statistically significant change at alpha = 0.05.

likely continue into the future unless forest management and/or urban development policies are altered, particularly given the threats to urban trees associated with development, climate change, insects and diseases, and fire. The loss of trees is decreasing forest benefits related to improving human health and environment quality in areas where the majority of American's live. Future changes in tree and impervious cover need to be monitored to determine how these patterns and rates of change will change in the coming years to help guide urban management and policies.

If the goal is to sustain or enhance tree cover and associated benefits in urban/community areas in the United States, more widespread, comprehensive and integrated programs that focus on sustaining overall tree canopy may be needed. Net tree cover change is the result of the combined influences of tree planting and natural regeneration, tree growth and tree mortality. Developing coordinated healthy tree canopy programs across various land ownerships can help sustain desired tree cover levels and better manage cover change. The success of these programs on altering landscape cover can be easily and cost-effectively monitored using paired-image photo-interpretation of digital aerial images.

Table 7
Average percent cover among classes between years in urban/community and urban areas in the United States. Matrices illustrate how cover classes are changing between years. For example, 47.9 percent of urban/community areas in Alabama remained in tree cover between years (no change), but tree cover lost 3.8 percent to other cover types (2.7 percent to grass. 0.5 percent to water, 0.4 percent to other impervious, and 0.1 percent each to building and agriculture cover) and gained 1.8 percent from other cover types (1.6 percent from previous grass cover and 0.1 percent each from road and water cover). Overall, urban/community tree cover dropped from 51.7 percent in 2007 to 49.7 percent in 2014, but this net change was a combination of various losses and gains among cover types. Note: impervious cover is split into three categories (building, road and other).

Urban/community Land

AL		2014	2014	2014	2014	2014	2014	2014	2014	2007	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2007	Grass	18.2	1.6	0.0	0.1	0.2	0.6	0.0	0.0	20.7	1.3
2007	Tree	2.7	47.9	0.1	0.0	0.4	0.5	0.0	0.1	51.7	1.6
2007	Bldg	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	2.4	0.5
2007	Road	0.0	0.1	0.0	3.9	0.0	0.0	0.0	0.0	4.0	0.6
2007	Other	0.0	0.0	0.1	0.0	5.2	0.0	0.0	0.0	5.3	0.7
2007	Water	0.9	0.1	0.2	0.0	0.0	1.3	0.1	0.0	2.6	0.5
2007	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.9	0.3
2007	Agri.	0.1	0.0	0.0	0.0	0.0	0.1	0.0	12.2	12.4	1.0
2014	Total	21.9	49.7	2.8	4.0	5.8	2.5	1.0	12.3		
	SE	1.3	1.6	0.5	0.6	0.7	0.5	0.3	1.0		
	Net	1.2	-2.0	0.4	0.0	0.5	-0.1	0.1	-0.1		
AK		2012	2012	2012	2012	2012	2012	2012	2012	2006	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2006	Grass	34.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	35.0	2.1
2006	Tree	0.6	48.2	0.0	0.0	0.0	0.0	0.0	0.0	48.8	2.3
2006	Bldg	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.2
2006	Road	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.4	0.3
2006	Other	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.4	0.3
2006	Water	0.2	0.0	0.0	0.0	0.0	7.3	0.0	0.0	7.5	1.2
2006	Soil	0.0	0.0	0.0	0.0	0.0	0.0	6.1	0.0	6.1	1.1
2006	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	0.6
2012	Total	35.2	48.8	0.2	0.4	0.4	7.3	6.1	1.6		
	SE	2.2	2.3	0.2	0.3	0.3	1.2	1.1	0.6		
	Net	0.2	0.0	0.0	0.0	0.0	-0.2	0.0	0.0		
AZ		2014	2014	2014	2014	2014	2014	2014	2014	2008	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2008	Grass	4.4	0.0	0.0	0.0	0.0	0.9	0.0	0.0	5.3	0.7
2008	Tree	0.1	30.0	0.0	0.1	0.1	0.5	0.0	0.0	30.8	1.5
2008	Bldg	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	3.7	0.6
2008	Road	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	3.2	0.6
2008	Other	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	2.9	0.5
2008	Water	0.2	0.2	0.1	0.1	0.1	46.2	0.0	0.0	46.9	1.6
2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1
2008	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	7.1	0.8
2014	Total	4.7	30.2	3.8	3.4	3.1	47.6	0.1	7.1		
	SE	0.7	1.5	0.6	0.6	0.5	1.6	0.1	0.8		
	Net	-0.6	-0.6	0.1	0.2	0.2	0.7	0.0	0.0		
AR		2013	2013	2013	2013	2013	2013	2013	2013	2009	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	20.0	0.9	0.3	0.0	0.2	0.2	0.0	0.0	21.6	1.3
2009	Tree	1.1	45.9	0.0	0.1	0.1	0.1	0.0	0.0	47.3	1.6
2009	Bldg	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	3.3	0.6
2009	Road	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	3.7	0.6
2009	Other	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	3.6	0.6
2009	Water	0.2	0.1	0.0	0.0	0.0	1.9	0.0	0.0	2.2	0.5
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.1	0.3

Urban Land

		2014	2014	2014	2014	2014	2014	2014	2014	2008	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2008	Grass	22.9	1.1	0.0	0.3	0.3	1.1	0.0	0.0	25.6	2.3
2008	Tree	2.2	40.9	0.3	0.0	0.5	0.3	0.0	0.0	44.1	2.6
2008	Bldg	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	5.2	1.2
2008	Road	0.0	0.3	0.0	6.5	0.0	0.0	0.0	0.0	6.8	1.3
2008	Other	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0	10.1	1.6
2008	Water	0.8	0.0	0.3	0.0	0.0	1.1	0.0	0.0	2.2	0.8
2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.3
2008	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	5.7	1.2
2014	Total	25.9	42.2	5.7	6.8	10.9	2.5	0.3	5.7		
	SE	2.3	2.6	1.2	1.3	1.6	0.8	0.3	1.2		
	Net	0.3	-1.9	0.5	0.0	0.8	0.3	0.0	0.0		
		2012	2012	2012	2012	2012	2012	2012	2012	2005	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2005	Grass	14.0	1.8	0.0	0.0	1.8	0.0	0.0	0.0	17.5	5.0
2005	Tree	3.5	45.6	0.0	0.0	0.0	0.0	0.0	0.0	49.1	6.6
2005	Bldg	0.0	0.0	10.5	0.0	0.0	0.0	0.0	0.0	10.5	4.1
2005	Road	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	7.0	3.4
2005	Other	0.0	0.0	0.0	0.0	14.0	0.0	0.0	0.0	14.0	4.6
2005	Water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2005	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2005	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.7
2012	Total	17.5	47.4	10.5	7.0	15.8	0.0	0.0	1.8		
	SE	5.0	6.6	4.1	3.4	4.8	0.0	0.0	1.7		
	Net	0.0	-1.8	0.0	0.0	1.8	0.0	0.0	0.0		
		2014	2014	2014	2014	2014	2014	2014	2014	2009	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	5.9	0.0	0.0	0.0	0.0	0.8	0.0	0.0	6.7	1.6
2009	Tree	0.4	25.6	0.0	0.0	0.0	1.3	0.0	0.0	27.3	2.9
2009	Bldg	0.0	0.0	12.6	0.0	0.0	0.0	0.0	0.0	12.6	2.2
2009	Road	0.0	0.0	0.0	10.5	0.0	0.0	0.0	0.0	10.5	2.0
2009	Other	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0	10.1	2.0
2009	Water	0.0	0.4	0.0	0.4	0.0	26.5	0.0	0.0	27.3	2.9
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	0.4
2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	1.4
2014	Total	6.3	26.1	12.6	10.9	10.1	28.6	0.4	5.0		
	SE	1.6	2.8	2.2	2.0	2.0	2.9	0.4	1.4		
	Net	-0.4	-1.3	0.0	0.4	0.0	1.3	0.0	0.0		
		2014	2014	2014	2014	2014	2014	2014	2014	2009	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	22.0	0.0	0.5	0.0	0.5	0.0	0.0	0.0	23.1	2.2
2009	Tree	1.3	46.1	0.0	0.0	0.0	0.3	0.0	0.0	47.7	2.6
2009	Bldg	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	7.0	1.3
2009	Road	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.0	5.1	1.1
2009	Other	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	7.5	1.4
2009	Water	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	1.9	0.7
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.1	0.5

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Table 7 (*continued*)

		Urban/community Land												Urban Land									
2009	Agri.	0.0	0.0	0.0	0.1	0.0	0.1	0.0	17.0	17.2	1.2	2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	6.7	1.3
2013	Total	21.3	46.9	3.6	3.9	3.9	2.3	1.1	17.0			2014	Total	23.3	46.1	7.5	5.1	8.0	2.1	1.1	6.7		
	SE	1.3	1.6	0.6	0.6	0.6	0.5	0.3	1.2				SE	2.2	2.6	1.4	1.1	1.4	0.8	0.5	1.3		
	Net	-0.3	-0.4	0.3	0.2	0.3	0.1	0.0	-0.2				Net	0.3	-1.6	0.5	0.0	0.5	0.3	0.0	0.0		
CA	2014	2014	2014	2014	2014	2014	2014	2014	2009				2014	2014	2014	2014	2014	2014	2014	2014	2009		
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	22.5	0.1	0.0	0.1	0.2	0.3	0.0	0.1	23.3	1.3	2009	Grass	17.9	0.2	0.0	0.2	0.4	0.2	0.0	0.0	18.9	1.7
2009	Tree	0.3	38.7	0.0	0.1	0.2	0.1	0.0	0.0	39.4	1.5	2009	Tree	0.2	31.0	0.0	0.0	0.4	0.0	0.0	0.0	31.5	2.0
2009	Bldg	0.0	0.0	9.3	0.0	0.0	0.1	0.0	0.0	9.4	0.9	2009	Bldg	0.0	0.0	16.1	0.0	0.0	0.2	0.0	0.0	16.3	1.6
2009	Road	0.2	0.0	0.0	6.9	0.0	0.0	0.0	0.0	7.1	0.8	2009	Road	0.2	0.0	0.0	10.8	0.0	0.0	0.0	0.0	11.0	1.3
2009	Other	0.0	0.1	0.1	0.0	9.0	0.0	0.0	0.0	9.2	0.9	2009	Other	0.0	0.2	0.2	0.0	14.8	0.0	0.0	0.0	15.2	1.5
2009	Water	0.2	0.1	0.0	0.1	0.0	3.8	0.0	0.0	4.2	0.6	2009	Water	0.2	0.2	0.0	0.2	0.0	1.6	0.0	0.0	2.2	0.6
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	7.4	0.8	2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	4.9	0.9
2014	Total	23.2	39.0	9.4	7.2	9.4	4.3	0.0	7.5			2014	Total	18.5	31.5	16.3	11.2	15.6	2.0	0.0	4.9		
	SE	1.3	1.5	0.9	0.8	0.9	0.6	0.0	0.8				SE	1.7	2.0	1.6	1.3	1.6	0.6	0.0	0.9		
	Net	-0.1	-0.4	0.0	0.1	0.2	0.1	0.0	0.1				Net	-0.4	0.0	0.0	0.2	0.4	-0.2	0.0	0.0		
CO		2013	2013	2013	2013	2013	2013	2013	2013	2007				2013	2013	2013	2013	2013	2013	2013	2013	2007	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2007	Grass	27.9	0.5	0.2	0.1	0.9	0.7	0.0	0.0	30.3	1.5	2007	Grass	29.1	0.4	0.2	0.0	1.7	0.6	0.0	0.0	32.1	2.2
2007	Tree	0.7	20.9	0.1	0.0	0.0	0.1	0.0	0.0	21.8	1.3	2007	Tree	0.4	17.1	0.0	0.0	0.0	0.0	0.0	0.0	17.6	1.8
2007	Bldg	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0	4.4	0.6	2007	Bldg	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0	8.6	1.3
2007	Road	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	6.1	0.8	2007	Road	0.0	0.0	0.0	10.7	0.0	0.0	0.0	0.0	10.7	1.4
2007	Other	0.2	0.0	0.0	0.0	8.9	0.1	0.0	0.0	9.2	0.9	2007	Other	0.4	0.0	0.0	0.0	15.4	0.2	0.0	0.0	16.1	1.7
2007	Water	0.6	0.2	0.0	0.1	0.1	4.0	0.0	0.0	5.0	0.7	2007	Water	0.9	0.0	0.0	0.0	0.2	4.5	0.0	0.0	5.6	1.1
2007	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.6	0.2	2007	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	0.3
2007	Agri.	0.3	0.0	0.0	0.1	0.2	0.3	0.0	21.7	22.6	1.3	2007	Agri.	0.4	0.0	0.0	0.0	0.2	0.2	0.0	8.1	9.0	1.3
2013	Total	29.7	21.6	4.7	6.4	10.1	5.2	0.6	21.7			2013	Total	31.3	17.6	8.8	10.7	17.6	5.6	0.4	8.1		
	SE	1.4	1.3	0.7	0.8	1.0	0.7	0.2	1.3				SE	2.1	1.8	1.3	1.4	1.8	1.1	0.3	1.3		
	Net	-0.6	-0.2	0.3	0.3	0.9	0.2	0.0	-0.9				Net	-0.9	0.0	0.2	0.0	1.5	0.0	0.0	-0.9		
CT		2014	2014	2014	2014	2014	2014	2014	2014	2008			2014	2014	2014	2014	2014	2014	2014	2014	2008		
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2008	Grass	16.4	0.3	0.1	0.1	0.0	0.2	0.0	0.0	17.1	1.2	2008	Grass	16.7	0.3	0.1	0.1	0.0	0.2	0.0	0.0	17.4	1.3
2008	Tree	0.7	62.2	0.0	0.0	0.1	0.0	0.0	0.0	63.0	1.5	2008	Tree	0.8	61.0	0.0	0.0	0.1	0.0	0.0	0.0	61.9	1.6
2008	Bldg	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	4.3	0.6	2008	Bldg	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	4.6	0.7
2008	Road	0.0	0.1	0.0	4.7	0.1	0.0	0.0	0.0	4.9	0.7	2008	Road	0.0	0.1	0.0	4.9	0.1	0.0	0.0	0.0	5.1	0.7
2008	Other	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0	7.2	0.8	2008	Other	0.0	0.0	0.0	0.0	7.9	0.0	0.0	0.0	7.9	0.9
2008	Water	0.4	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.8	0.3	2008	Water	0.4	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.8	0.3
2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8	0.3	2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.9	0.3
2008	Agri.	0.0	0.0	0.0	0.0	0.1	0.0	0.0	1.8	1.9	0.4	2008	Agri.	0.0	0.0	0.0	0.0	0.1	0.0	0.0	1.2	1.3	0.4
2014	Total	17.5	62.7	4.5	4.8	7.5	0.4	0.8	1.8			2014	Total	17.9	61.6	4.9	5.0	8.3	0.3	0.9	1.2		
	SE	1.2	1.5	0.7	0.7	0.8	0.2	0.3	0.4				SE	1.3	1.6	0.7	0.7	0.9	0.2	0.3	0.4		
	Net	0.4	-0.3	0.2	-0.1	0.3	-0.4	0.0	-0.1				Net	0.4	-0.3	0.2	-0.1	0.3	-0.4	0.0	-0.1		
DE		2011	2011	2011	2011	2011	2011	2011	2011	2006				2012	2012	2012	2012	2012	2012	2012	2012	2007	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2006	Grass	27.3	0.8	0.1	0.1	0.6	0.2	0.0	0.0	29.1	1.4	2007	Grass	29.5	0.8	0.1	0.1	0.6	0.2	0.0	0.0	31.3	1.6
2006	Tree	0.6	34.4	0.1	0.1	0.3	0.2	0.1	0.0	35.8	1.5	2007	Tree	0.7	34.2	0.1	0.1	0.3	0.2	0.1	0.0	35.8	1.6
2006	Bldg	0.1	0.0	7.1	0.0	0.0	0.0	0.0	0.0	7.2	0.8	2007	Bldg	0.0	0.0	7.8	0.0	0.0	0.0	0.0	0.0	7.8	0.9
2006	Road	0.0	0.0	0.0	6.3	0.0	0.0	0.0	0.0	6.3	0.8	2007	Road	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	6.7	0.8
2006	Other	0.1	0.0	0.0	0.0	6.4	0.0	0.0	0.0	6.5	0.8	2007	Other	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	6.7	0.8
2006	Water	1.0	0.0	0.1	0.0	0.1	0.2	0.0	0.0	1.4	0.4	2007	Water	1.1	0.0	0.1	0.0	0.1	0.2	0.0	0.0	1.6	0.4
2006	Soil	0.1	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.2	0.3	2007	Soil	0.1	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.2	0.4

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Table 7 (*continued*)

		Urban/community Land												Urban Land									
2006	Agri.	0.0	0.1	0.1	0.0	0.0	0.1	0.0	12.2	12.5	1.0	2007	Agri.	0.0	0.1	0.1	0.0	0.0	0.1	0.0	8.5	8.9	1.0
2011	Total	29.2	35.3	7.5	6.5	7.4	0.7	1.2	12.2			2012	Total	31.4	35.1	8.2	7.0	7.8	0.8	1.2	8.5		
	SE	1.4	1.5	0.8	0.8	0.8	0.3	0.3	1.0				SE	1.6	1.6	0.9	0.9	0.9	0.3	0.4	0.9		
	Net	0.1	-0.5	0.3	0.2	0.9	-0.7	0.0	-0.3				Net	0.1	-0.7	0.4	0.2	1.0	-0.8	0.0	-0.3		
DC		2015	2015	2015	2015	2015	2015	2015	2015	2010				2015	2015	2015	2015	2015	2015	2015	2015	2010	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2010	Grass	16.7	0.2	0.1	0.0	0.4	0.0	0.0	0.0	17.4	1.2	2010	Grass	16.7	0.2	0.1	0.0	0.4	0.0	0.0	0.0	17.4	1.2
2010	Tree	1.7	33.6	0.1	0.3	0.4	0.0	0.0	0.0	36.1	1.5	2010	Tree	1.7	33.6	0.1	0.3	0.4	0.0	0.0	0.0	36.1	1.5
2010	Bldg	0.2	0.0	17.6	0.0	0.1	0.0	0.0	0.0	17.9	1.2	2010	Bldg	0.2	0.0	17.6	0.0	0.1	0.0	0.0	0.0	17.9	1.2
2010	Road	0.1	0.0	0.0	13.1	0.0	0.0	0.0	0.0	13.2	1.1	2010	Road	0.1	0.0	0.0	13.1	0.0	0.0	0.0	0.0	13.2	1.1
2010	Other	0.1	0.0	0.2	0.0	14.0	0.0	0.0	0.0	14.3	1.1	2010	Other	0.1	0.0	0.2	0.0	14.0	0.0	0.0	0.0	14.3	1.1
2010	Water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2010	Water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	Soil	0.0	0.1	0.0	0.0	0.0	0.0	1.0	0.0	1.1	0.3	2010	Soil	0.0	0.1	0.0	0.0	0.0	0.0	1.0	0.0	1.1	0.3
2010	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2010	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2015	Total	18.8	33.9	18.0	13.4	14.9	0.0	1.0	0.0			2015	Total	18.8	33.9	18.0	13.4	14.9	0.0	1.0	0.0		
	SE	1.2	1.5	1.2	1.1	1.1	0.0	0.3	0.0				SE	1.2	1.5	1.2	1.1	1.1	0.0	0.3	0.0		
	Net	1.4	-2.2	0.1	0.2	0.6	0.0	-0.1	0.0				Net	1.4	-2.2	0.1	0.2	0.6	0.0	-0.1	0.0		
FL		2014	2014	2014	2014	2014	2014	2014	2014	2009				2014	2014	2014	2014	2014	2014	2014	2014	2009	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	25.9	1.0	0.3	0.1	0.1	0.2	0.0	0.0	27.6	1.4	2009	Grass	26.7	0.8	0.5	0.2	0.2	0.2	0.0	0.0	28.4	1.8
2009	Tree	1.3	46.5	0.3	0.0	0.3	0.2	0.0	0.4	49.0	1.6	2009	Tree	1.2	40.9	0.5	0.0	0.5	0.3	0.0	0.3	43.6	1.9
2009	Bldg	0.1	0.0	6.5	0.0	0.0	0.0	0.0	0.0	6.6	0.8	2009	Bldg	0.2	0.0	9.7	0.0	0.0	0.0	0.0	0.0	9.8	1.2
2009	Road	0.1	0.0	0.0	3.4	0.0	0.0	0.0	0.0	3.5	0.6	2009	Road	0.2	0.0	0.0	4.4	0.0	0.0	0.0	0.0	4.5	0.8
2009	Other	0.1	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.4	0.6	2009	Other	0.2	0.0	0.0	0.0	6.2	0.0	0.0	0.0	6.3	0.9
2009	Water	0.7	0.1	0.2	0.0	0.1	0.7	0.0	0.0	1.8	0.4	2009	Water	0.9	0.2	0.3	0.0	0.2	0.8	0.0	0.0	2.3	0.6
2009	Soil	0.1	0.0	0.0	0.0	0.0	0.0	3.0	0.0	3.1	0.5	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	3.6	0.7
2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	3.9	4.0		2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.4	1.5	0.5
2014	Total	28.3	47.6	7.3	3.5	4.8	1.1	3.1	4.3			2014	Total	29.3	41.8	10.9	4.5	6.9	1.2	3.8	1.7		
	SE	1.4	1.6	0.8	0.6	0.7	0.3	0.5	0.6				SE	1.8	1.9	1.2	0.8	1.0	0.4	0.7	0.5		
	Net	0.7	-1.4	0.7	0.0	0.4	-0.7	0.0	0.3				Net	0.9	-1.8	1.1	0.0	0.6	-1.1	0.2	0.2		
GA		2014	2014	2014	2014	2014	2014	2014	2014	2009				2014	2014	2014	2014	2014	2014	2014	2014	2009	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	19.5	0.7	0.1	0.0	0.2	0.3	0.1	0.0	20.9	1.3	2009	Grass	19.6	0.3	0.0	0.0	0.2	0.3	0.0	0.0	20.4	1.6
2009	Tree	2.4	60.6	0.0	0.2	0.2	0.0	0.0	0.0	63.4	1.5	2009	Tree	2.0	58.3	0.0	0.2	0.2	0.0	0.0	0.0	60.6	1.9
2009	Bldg	0.1	0.0	4.3	0.0	0.0	0.0	0.0	0.0	4.4	0.6	2009	Bldg	0.2	0.0	5.6	0.0	0.0	0.0	0.0	0.0	5.7	0.9
2009	Road	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	2.4	0.5	2009	Road	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	3.1	0.7
2009	Other	0.0	0.0	0.0	0.0	5.5	0.2	0.0	0.0	5.7	0.7	2009	Other	0.0	0.0	0.0	0.0	7.3	0.3	0.0	0.0	7.6	1.0
2009	Water	0.5	0.1	0.0	0.1	0.2	0.6	0.0	0.0	1.5	0.4	2009	Water	0.6	0.2	0.0	0.0	0.3	0.9	0.0	0.0	2.0	0.6
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.1	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.2
2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	0.4	2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.3
2014	Total	22.5	61.4	4.4	2.7	6.1	1.1	0.3	1.5			2014	Total	22.4	58.8	5.6	3.2	7.9	1.5	0.2	0.5		
	SE	1.3	1.5	0.6	0.5	0.8	0.3	0.2	0.4				SE	1.6	1.9	0.9	0.7	1.1	0.5	0.2	0.3		
	Net	1.6	-2.0	0.0	0.3	0.4	-0.4	0.1	0.0				Net	2.0	-1.9	-0.2	0.2	0.3	-0.5	0.0	0.0		
HI		2015	2015	2015	2015	2015	2015	2015	2015	2010				2015	2015	2015	2015	2015	2015	2015	2015	2009	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2010	Grass	29.4	0.9	0.1	0.0	0.1	0.1	0.0	0.1	30.7	1.5	2009	Grass	25.4	1.9	0.3	0.0	0.3	0.3	0.0	0.0	28.2	2.5
2010	Tree	0.7	49.1	0.0	0.1	0.2	0.0	0.0	0.1	50.2	1.6	2009	Tree	0.6	39.8	0.0	0.0	0.6	0.0	0.0	0.3	41.4	2.8
2010	Bldg	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0	5.5	0.7	2009	Bldg	0.0	0.0	15.4	0.0	0.0	0.0	0.0	0.0	15.4	2.0
2010	Road	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	2.0	0.4	2009	Road	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	4.1	1.1
2010	Other	0.0	0.0	0.1	0.0	2.5	0.0	0.0	0.0	2.6	0.5	2009	Other	0.0	0.0	0.0	0.0	6.3	0.0	0.0	0.0	6.3	1.4
2010	Water	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.3	0.2	2009	Water	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3
2010	Soil	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	2.6	0.5	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	1.6	0.7

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Table 7 (*continued*)

		Urban/community Land												Urban Land									
2010	Agri.	0.2	0.1	0.1	0.0	0.0	0.0	0.0	5.7	6.1	0.8	2009	Agri.	0.0	0.0	0.3	0.0	0.0	0.0	0.0	2.5	2.8	0.9
2015	Total	30.4	50.1	5.9	2.1	2.8	0.2	2.6	5.9			2015	Total	26.3	41.7	16.0	4.1	7.2	0.3	1.6	2.8		
	SE	1.5	1.6	0.7	0.5	0.5	0.1	0.5	0.7				SE	2.5	2.8	2.1	1.1	1.4	0.3	0.7	0.9		
	Net	-0.3	-0.1	0.4	0.1	0.2	-0.1	0.0	-0.2				Net	-1.9	0.3	0.6	0.0	0.9	0.0	0.0	0.0		
ID		2014	2014	2014	2014	2014	2014	2014	2014	2008				2014	2014	2014	2014	2014	2014	2014	2014	2008	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2008	Grass	30.5	0.5	0.0	0.0	0.4	0.4	0.0	0.2	32.0	1.5	2008	Grass	29.5	0.6	0.0	0.0	0.8	0.8	0.0	0.2	31.8	2.0
2008	Tree	0.4	13.3	0.1	0.2	0.2	0.0	0.0	0	14.2	1.1	2008	Tree	0.6	12.5	0.2	0.4	0.4	0.0	0.0	0.0	14.1	1.5
2008	Bldg	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0	3.9	0.6	2008	Bldg	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0	6.6	1.1
2008	Road	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0	6.1	0.8	2008	Road	0.0	0.0	0.0	10.6	0.0	0.0	0.0	0.0	10.6	1.4
2008	Other	0.2	0.0	0.5	0.1	10.0	0.1	0.0	0	10.9	1.0	2008	Other	0.0	0.0	1.0	0.0	16.8	0.2	0.0	0.0	17.9	1.7
2008	Water	1.2	0.0	0.0	0.0	0.0	2.6	0.0	0	3.8	0.6	2008	Water	1.3	0.0	0.0	0.0	0.0	1.7	0.0	0.0	3.1	0.8
2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0	0.6	0.2	2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8	0.4
2008	Agri.	0.5	0.0	0.1	0.1	0.2	0.0	0.0	27.6	28.5	1.4	2008	Agri.	0.2	0.0	0.0	0.2	0.0	0.0	0.0	14.8	15.2	1.6
2014	Total	32.8	13.8	4.6	6.5	10.8	3.1	0.6	27.8			2014	Total	31.6	13.1	7.7	11.2	17.9	2.7	0.8	15.0		
	SE	1.5	1.1	0.7	0.8	1.0	0.5	0.2	1.4				SE	2.0	1.5	1.2	1.4	1.7	0.7	0.4	1.6		
	Net	0.8	-0.4	0.7	0.4	-0.1	-0.7	0.0	-0.7				Net	-0.2	-1.0	1.2	0.6	0.0	-0.4	0.0	-0.2		
IL		2013	2013	2013	2013	2013	2013	2013	2013	2008				2013	2013	2013	2013	2013	2013	2013	2013	2008	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2008	Grass	26.6	0.4	0.1	0.1	0.5	0.5	0.0	0.0	28.2	1.4	2008	Grass	27.2	0.5	0.1	0.1	0.5	0.7	0.0	0.0	29.2	1.7
2008	Tree	1.1	29.5	0.1	0.0	0.1	0.0	0.0	0.1	30.9	1.5	2008	Tree	1.1	30.8	0.1	0.0	0.1	0.0	0.0	0.0	32.1	1.7
2008	Bldg	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0	8.3	0.9	2008	Bldg	0.0	0.0	10.1	0.0	0.0	0.0	0.0	0.0	10.1	1.1
2008	Road	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0	6.5	0.8	2008	Road	0.0	0.0	0.0	7.8	0.0	0.0	0.0	0.0	7.8	1.0
2008	Other	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0	7.4	0.8	2008	Other	0.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	9.0	1.0
2008	Water	0.4	0.0	0.0	0.0	0.1	1.1	0.0	0.0	1.6	0.4	2008	Water	0.4	0.0	0.0	0.0	0.1	0.9	0.0	0.0	1.5	0.4
2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.9	0.3	2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.9	0.3
2008	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.2	16.2	1.2	2008	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.3	9.3	1.1
2013	Total	28.1	29.9	8.5	6.6	8.1	1.6	0.9	16.3			2013	Total	28.7	31.3	10.4	8.0	9.8	1.6	0.9	9.3		
	SE	1.4	1.4	0.9	0.8	0.9	0.4	0.3	1.2				SE	1.6	1.7	1.1	1.0	1.1	0.5	0.3	1.1		
	Net	-0.1	-1.0	0.2	0.1	0.7	0.0	0.0	0.1				Net	-0.5	-0.8	0.3	0.1	0.8	0.1	0.0	0.0		
IN		2013	2013	2013	2013	2013	2013	2013	2013	2008				2013	2013	2013	2013	2013	2013	2013	2013	2008	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2008	Grass	25.6	0.0	0.1	0.1	0.6	0.4	0.0	0.1	26.9	1.4	2008	Grass	26.2	0.0	0.1	0.0	0.8	0.5	0.0	0.1	27.7	1.6
2008	Tree	0.2	30.1	0.2	0.0	0.2	0.1	0.0	0.0	30.8	1.5	2008	Tree	0.1	31.4	0.3	0.0	0.3	0.1	0.0	0.0	32.2	1.7
2008	Bldg	0.0	0.0	6.0	0.0	0.1	0.0	0.0	0.0	6.1	0.8	2008	Bldg	0.0	0.0	7.0	0.0	0.1	0.0	0.0	0.0	7.2	0.9
2008	Road	0.1	0.0	0.0	4.6	0.0	0.0	0.0	0.0	4.7	0.7	2008	Road	0.1	0.0	0.0	5.3	0.0	0.0	0.0	0.0	5.5	0.8
2008	Other	0.2	0.0	0.1	0.1	10.4	0.0	0.0	0.0	10.8	1.0	2008	Other	0.3	0.0	0.1	0.0	12.0	0.0	0.0	0.0	12.4	1.2
2008	Water	0.4	0.0	0.0	0.0	0.2	1.1	0.0	0.1	1.8	0.4	2008	Water	0.0	0.0	0.0	0.0	0.3	1.2	0.0	0.0	1.4	0.4
2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.3	0.4	2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.3	0.4
2008	Agri.	0.1	0.0	0.0	0.0	0.1	0.0	0.0	17.4	17.6	1.2	2008	Agri.	0.0	0.0	0.0	0.0	0.1	0.0	0.0	12.2	12.4	1.2
2013	Total	26.6	30.1	6.4	4.8	11.6	1.6	1.3	17.6			2013	Total	26.7	31.4	7.6	5.3	13.5	1.8	1.3	12.4		
	SE	1.4	1.5	0.8	0.7	1.0	0.4	0.4	1.2				SE	1.6	1.7	1.0	0.8	1.2	0.5	0.4	1.2		
	Net	-0.3	-0.7	0.3	0.1	0.8	-0.2	0.0	0.0				Net	-1.0	-0.8	0.4	-0.1	1.2	0.4	0.0	0.0		
IA		2013	2013	2013	2013	2013	2013	2013	2013	2008				2014	2014	2014	2014	2014	2014	2014	2014	2009	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2008	Grass	25.5	0.4	0.3	0.1	0.1	0.2	0.0	0.2	26.8	1.4	2009	Grass	27.2	0.5	0.5	0.0	0.2	0.2	0.0	0.2	28.8	2.2
2008	Tree	0.6	20.4	0.1	0.2	0.2	0.1	0.0	0.3	21.9	1.3	2009	Tree	1.2	26.7	0.2	0.2	0.2	0.0	0.0	0.2	28.8	2.2
2008	Bldg	0.1	0.0	6.0	0.0	0.0	0.0	0.0	0.0	6.1	0.8	2009	Bldg	0.0	0.0	9.9	0.0	0.0	0.0	0.0	0.0	9.9	1.5
2008	Road	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	5.6	0.7	2009	Road	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	8.0	1.3
2008	Other	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.1	5.7	0.7	2009	Other	0.0	0.0	0.0	0.0	9.5	0.0	0.0	0.0	9.5	1.4
2008	Water	0.5	0.1	0.1	0.1	0.2	0.9	0.1	0.1	2.1	0.5	2009	Water	0.7	0.0	0.2	0.2	0.5	1.2	0.0	0.0	2.8	0.8
2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0	0.3	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	0.3

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Table 7 (*continued*)

		Urban/community Land												Urban Land									
2008	Agri.	0.5	0.0	0.0	0.1	0.0	0.2	0.1	29.9	30.8	1.5	2009	Agri.	0.0	0.0	0.0	0.2	0.0	0.2	0.0	11.1	11.6	1.6
2013	Total	27.2	20.9	6.5	6.1	6.1	1.4	1.2	30.6			2014	Total	29.1	27.2	10.9	8.7	10.4	1.7	0.5	11.6		
	SE	1.4	1.3	0.8	0.8	0.8	0.4	0.3	1.5				SE	2.2	2.2	1.5	1.4	1.5	0.6	0.3	1.6		
	Net	0.4	-1.0	0.4	0.5	0.4	-0.7	0.2	-0.2				Net	0.2	-1.7	0.9	0.7	0.9	-1.2	0.0	0.0		
KS		2014 Grass	2014 Tree	2014 Bldg	2014 Road	2014 Other	2014 Water	2014 Soil	2014 Agri	2009 Total	SE			2014 Grass	2014 Tree	2014 Bldg	2014 Road	2014 Other	2014 Water	2014 Soil	2014 Agri	2009 Total	SE
2009	Grass	30.9	0.1	0.2	0.2	0.4	0.1	0.0	0.2	32.1	1.5	2009	Grass	28.5	0.2	0.2	0.2	0.3	0.2	0.0	0.0	29.6	1.9
2009	Tree	0.5	30.2	0.0	0.1	0.1	0.0	0.0	0.1	31.0	1.5	2009	Tree	0.9	34.5	0.0	0.2	0.2	0.0	0.0	0.0	35.7	2.0
2009	Bldg	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	7.3	0.8	2009	Bldg	0.0	0.0	10.6	0.0	0.0	0.0	0.0	0.0	10.6	1.3
2009	Road	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	5.4	0.7	2009	Road	0.0	0.0	0.0	6.3	0.0	0.0	0.0	0.0	6.3	1.0
2009	Other	0.0	0.0	0.3	0.0	7.8	0.0	0.0	0.0	8.1	0.9	2009	Other	0.0	0.0	0.5	0.0	10.4	0.0	0.0	0.0	10.9	1.3
2009	Water	0.1	0.0	0.0	0.1	0.2	2.5	0.0	0.0	2.9	0.5	2009	Water	0.2	0.0	0.0	0.0	0.3	2.6	0.0	0.0	3.1	0.7
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7	0.3	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	0.3
2009	Agri.	0.1	0.0	0.0	0.0	0.0	0.0	0.0	12.4	12.5	1.0	2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	3.2	0.7
2014	Total	31.6	30.3	7.8	5.8	8.5	2.6	0.7	12.7			2014	Total	29.6	34.7	11.3	6.7	11.3	2.7	0.5	3.2		
	SE	1.5	1.5	0.8	0.7	0.9	0.5	0.3	1.1				SE	1.9	2.0	1.3	1.0	1.3	0.7	0.3	0.7		
	Net	-0.5	-0.7	0.5	0.4	0.4	-0.3	0.0	0.2				Net	0.0	-1.0	0.7	0.3	0.3	-0.3	0.0	0.0		
KY		2014 Grass	2014 Tree	2014 Bldg	2014 Road	2014 Other	2014 Water	2014 Soil	2014 Agri	2008 Total	SE			2014 Grass	2014 Tree	2014 Bldg	2014 Road	2014 Other	2014 Water	2014 Soil	2014 Agri	2008 Total	SE
2008	Grass	26.1	0.1	0.0	0.0	0.1	0.3	0.0	0.1	26.7	1.4	2008	Grass	28.5	0.0	0.0	0.0	0.2	0.5	0.0	0.0	29.2	1.9
2008	Tree	0.8	38.6	0.1	0.0	0.3	0.0	0.0	0.0	39.8	1.5	2008	Tree	1.2	35.3	0.0	0.0	0.5	0.0	0.0	0.0	37.1	2.0
2008	Bldg	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	5.2	0.7	2008	Bldg	0.0	0.0	7.6	0.0	0.0	0.0	0.0	0.0	7.6	1.1
2008	Road	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	3.8	0.6	2008	Road	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	4.9	0.9
2008	Other	0.1	0.0	0.0	0.0	7.4	0.0	0.0	0.0	7.5	0.8	2008	Other	0.2	0.0	0.0	0.0	11.6	0.0	0.0	0.0	11.8	1.4
2008	Water	0.5	0.2	0.2	0.0	0.3	0.4	0.0	0.0	1.6	0.4	2008	Water	0.5	0.4	0.4	0.0	0.5	0.2	0.0	0.0	1.9	0.6
2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	0.2	2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.2
2008	Agri.	0.2	0.0	0.0	0.0	0.2	0.0	0.0	14.6	15.0	1.1	2008	Agri.	0.2	0.0	0.0	0.0	0.0	0.0	0.0	7.2	7.4	1.1
2014	Total	27.7	38.9	5.5	3.8	8.3	0.7	0.4	14.7			2014	Total	30.6	35.7	7.9	4.9	12.8	0.7	0.2	7.2		
	SE	1.4	1.5	0.7	0.6	0.9	0.3	0.2	1.1				SE	1.9	2.0	1.1	0.9	1.4	0.4	0.2	1.1		
	Net	1.0	-0.9	0.3	0.0	0.8	-0.9	0.0	-0.3				Net	1.4	-1.4	0.4	0.0	1.1	-1.2	0.0	-0.2		
LA		2014 Grass	2014 Tree	2014 Bldg	2014 Road	2014 Other	2014 Water	2014 Soil	2014 Agri	2009 Total	SE			2014 Grass	2014 Tree	2014 Bldg	2014 Road	2014 Other	2014 Water	2014 Soil	2014 Agri	2009 Total	SE
2009	Grass	23.7	1.2	0.1	0.0	0.1	0.0	0.0	0.0	25.1	1.4	2009	Grass	25.0	0.7	0.2	0.0	0.2	0.0	0.0	0.0	26.0	1.8
2009	Tree	1.6	45.6	0.1	0.0	0.0	0.0	0.0	0.3	47.6	1.6	2009	Tree	1.9	43.7	0.0	0.0	0.0	0.0	0.0	0.3	45.9	2.1
2009	Bldg	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	4.2	0.6	2009	Bldg	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	6.8	1.0
2009	Road	0.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	4.7	0.7	2009	Road	0.0	0.0	0.0	6.4	0.0	0.0	0.0	0.0	6.4	1.0
2009	Other	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0	3.9	0.6	2009	Other	0.0	0.0	0.0	0.0	6.4	0.0	0.0	0.0	6.4	1.0
2009	Water	0.2	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.5	0.2	2009	Water	0.3	0.0	0.2	0.0	0.0	0.3	0.0	0.0	0.9	0.4
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.1	1.7	0.4	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	1.6	0.5
2009	Agri.	0.1	0.5	0.0	0.0	0.0	0.0	0.0	11.7	12.3	1.0	2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	6.1	1.0
2014	Total	25.6	47.3	4.5	4.7	4.0	0.2	1.6	12.1			2014	Total	27.2	44.4	7.1	6.4	6.6	0.3	1.6	6.4		
	SE	1.4	1.6	0.7	0.7	0.6	0.1	0.4	1.0				SE	1.9	2.1	1.1	1.0	1.0	0.2	0.5	1.0		
	Net	0.5	-0.3	0.3	0.0	0.1	-0.3	-0.1	-0.2				Net	1.2	-1.6	0.3	0.0	0.2	-0.5	0.0	0.3		
ME		2013 Grass	2013 Tree	2013 Bldg	2013 Road	2013 Other	2013 Water	2013 Soil	2013 Agri	2008 Total	SE			2014 Grass	2014 Tree	2014 Bldg	2014 Road	2014 Other	2014 Water	2014 Soil	2014 Agri	2009 Total	SE
2008	Grass	14.4	0.6	0.1	0.0	0.1	0.1	0.0	0.0	15.3	1.1	2009	Grass	20.1	0.7	0.3	0.0	0.3	0.0	0.0	0.0	21.4	2.4
2008	Tree	0.8	67.4	0.0	0.0	0.0	0.2	0.0	0.0	68.4	1.5	2009	Tree	0.7	57.8	0.0	0.0	0.0	0.7	0.0	0.0	59.2	2.9
2008	Bldg	0.1	0.0	2.6	0.0	0.0	0.0	0.0	0.0	2.7	0.5	2009	Bldg	0.3	0.0	6.8	0.0	0.0	0.0	0.0	0.0	7.1	1.5
2008	Road	0.1	0.0	0.0	3.2	0.0	0.0	0.0	0.0	3.3	0.6	2009	Road	0.3	0.0	0.0	6.5	0.0	0.0	0.0	0.0	6.8	1.5
2008	Other	0.0	0.0	0.0	0.0	1.2	0.1	0.0	0.0	1.3	0.4	2009	Other	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	3.1	1.0
2008	Water	0.1	0.0	0.0	0.1	0.0	0.5	0.0	0.0	0.7	0.3	2009	Water	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.7	0.5
2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7	0.3	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7	0.5

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Table 7 (*continued*)

		Urban/community Land												Urban Land									
2008	Agri.	0.0	0.1	0.0	0.0	0.0	0.0	0.0	7.5	7.6	0.8	2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.6
2013	Total	15.5	68.1	2.7	3.3	1.3	0.9	0.7	7.5			2014	Total	21.4	58.5	7.1	6.5	3.4	1.4	0.7	1.0		
	SE	1.1	1.5	0.5	0.6	0.4	0.3	0.3	0.8				SE	2.4	2.9	1.5	1.4	1.1	0.7	0.5	0.6		
	Net	0.2	-0.3	0.0	0.0	0.0	0.2	0.0	-0.1				Net	0.0	-0.7	0.0	-0.3	0.3	0.7	0.0	0.0		
MD		2014	2014	2014	2014	2014	2014	2014	2014	2009				2014	2014	2014	2014	2014	2014	2014	2014	2009	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	20.4	0.3	0.2	0.0	0.1	0.2	0.0	0.0	21.2	1.3	2009	Grass	20.3	0.3	0.3	0.0	0.1	0.3	0.0	0.0	21.2	1.5
2009	Tree	0.3	52.7	0.1	0.1	0.2	0.0	0.0	0.0	53.4	1.6	2009	Tree	0.4	51.8	0.1	0.1	0.3	0.0	0.0	0.0	52.7	1.8
2009	Bldg	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	6.8	0.8	2009	Bldg	0.0	0.0	8.4	0.0	0.0	0.0	0.0	0.0	8.4	1.0
2009	Road	0.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	4.7	0.7	2009	Road	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	5.8	0.8
2009	Other	0.2	0.1	0.0	0.2	5.8	0.0	0.0	0.0	6.3	0.8	2009	Other	0.3	0.1	0.0	0.3	6.5	0.0	0.0	0.0	7.1	0.9
2009	Water	0.2	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.5	0.2	2009	Water	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.5	0.3
2009	Soil	0.1	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.8	0.3	2009	Soil	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.4	0.2
2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	6.3	0.8	2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	3.8	0.7
2014	Total	21.2	53.1	7.1	5.0	6.1	0.5	0.7	6.3			2014	Total	21.3	52.2	8.8	6.2	6.9	0.5	0.3	3.8		
	SE	1.3	1.6	0.8	0.7	0.8	0.2	0.3	0.8				SE	1.5	1.8	1.0	0.9	0.9	0.3	0.2	0.7		
	Net	0.0	-0.3	0.3	0.3	-0.2	0.0	-0.1	0.0				Net	0.1	-0.5	0.4	0.4	-0.3	0.0	-0.1	0.0		
MA	2014	2014	2014	2014	2014	2014	2014	2014	2008				2014	2014	2014	2014	2014	2014	2014	2014	2008		
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2008	Grass	17.7	0.1	0.2	0.0	0.3	0.0	0.0	0.1	18.4	1.2	2008	Grass	17.7	0.1	0.2	0.0	0.3	0.0	0.0	0.1	18.5	1.3
2008	Tree	1.1	58.1	0.1	0.0	0.1	0.3	0.0	0.0	59.7	1.6	2008	Tree	1.1	56.9	0.1	0.0	0.1	0.2	0.0	0.0	58.5	1.7
2008	Bldg	0.0	0.1	5.0	0.0	0.1	0.0	0.0	0.0	5.2	0.7	2008	Bldg	0.0	0.1	5.7	0.0	0.1	0.0	0.0	0.0	5.9	0.8
2008	Road	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	3.5	0.6	2008	Road	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	4.0	0.7
2008	Other	0.4	0.1	0.0	0.1	6.8	0.0	0.0	0.0	7.4	0.8	2008	Other	0.5	0.0	0.0	0.1	7.6	0.0	0.0	0.0	8.2	0.9
2008	Water	0.1	0.0	0.0	0.0	0.1	1.4	0.0	0.0	1.6	0.4	2008	Water	0.1	0.0	0.0	0.0	0.1	1.4	0.0	0.0	1.6	0.4
2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.3	0.4	2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.1	0.4
2008	Agri.	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.8	2.9	0.5	2008	Agri.	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.3	0.5
2014	Total	19.4	58.4	5.3	3.6	7.4	1.7	1.3	2.9			2014	Total	19.5	57.1	6.0	4.1	8.3	1.6	1.1	2.3		
	SE	1.3	1.6	0.7	0.6	0.8	0.4	0.4	0.5				SE	1.3	1.7	0.8	0.7	0.9	0.4	0.4	0.5		
	Net	1.0	-1.3	0.1	0.1	0.0	0.1	0.0	0.0				Net	1.0	-1.4	0.1	0.1	0.1	0.0	0.0	0.0		
MI		2014	2014	2014	2014	2014	2014	2014	2014	2008				2014	2014	2014	2014	2014	2014	2014	2014	2008	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2008	Grass	24.2	0.1	0.2	0.0	0.2	0.0	0.0	0.0	24.7	1.4	2008	Grass	25.8	0.1	0.3	0.0	0.3	0.0	0.0	0.0	26.4	1.6
2008	Tree	0.5	45.8	0.0	0.0	0.2	0.2	0.0	0.0	46.7	1.6	2008	Tree	0.6	42.3	0.0	0.0	0.3	0.3	0.0	0.0	43.5	1.8
2008	Bldg	0.0	0.0	6.6	0.0	0.1	0.0	0.0	0.0	6.7	0.8	2008	Bldg	0.0	0.0	7.3	0.0	0.1	0.0	0.0	0.0	7.4	0.9
2008	Road	0.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0	7.1	0.8	2008	Road	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	8.0	1.0
2008	Other	0.0	0.0	0.0	0.1	6.7	0.0	0.0	0.0	6.8	0.8	2008	Other	0.0	0.0	0.0	0.1	8.2	0.0	0.0	0.0	8.3	1.0
2008	Water	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.5	0.2	2008	Water	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.2
2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	1.4	0.4	2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	1.4	0.4
2008	Agri.	0.1	0.0	0.0	0.0	0.0	0.0	0.0	6.0	6.1	0.8	2008	Agri.	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.5	4.6	0.7
2014	Total	24.8	45.9	6.8	7.2	7.2	0.7	1.4	6.0			2014	Total	26.5	42.5	7.5	8.2	8.8	0.6	1.4	4.5		
	SE	1.4	1.6	0.8	0.8	0.8	0.3	0.4	0.8				SE	1.6	1.8	0.9	1.0	1.0	0.3	0.4	0.7		
	Net	0.1	-0.8	0.1	0.1	0.4	0.2	0.0	-0.1				Net	0.1	-1.0	0.1	0.1	0.5	0.3	0.0	-0.1		
MN	2014	2014	2014	2014	2014	2014	2014	2014	2009				2014	2014	2014	2014	2014	2014	2014	2014	2009		
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	23.9	0.3	0.3	0.0	0.0	0.2	0.0	0.1	24.8	1.4	2009	Grass	23.6	0.3	0.3	0.0	0.0	0.3	0.0	0.0	24.4	2.3
2009	Tree	0.2	46.4	0.0	0.0	0.0	0.1	0.0	0.0	46.7	1.6	2009	Tree	0.3	46.1	0.0	0.0	0.0	0.0	0.0	0.0	46.4	2.6
2009	Bldg	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	2.5	0.5	2009	Bldg	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	5.8	1.2
2009	Road	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	4.9	0.7	2009	Road	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0	8.6	1.5
2009	Other	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	3.7	0.6	2009	Other	0.0	0.0	0.0	0.0	8.6	0.0	0.0	0.0	8.6	1.5
2009	Water	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	1.5	0.4	2009	Water	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.8	0.5
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7	0.3	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.6	0.4

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Table 7 (*continued*)

		Urban/community Land												Urban Land									
2009	Agri.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	15.1	15.2	1.1	2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	4.7	1.1
2014	Total	24.1	46.7	2.8	5.0	3.7	1.8	0.7	15.2			2014	Total	23.9	46.4	6.1	8.6	8.6	1.1	0.6	4.7		
	SE	1.4	1.6	0.5	0.7	0.6	0.4	0.3	1.1				SE	2.2	2.6	1.3	1.5	1.5	0.6	0.4	1.1		
	Net	-0.7	0.0	0.3	0.1	0.0	0.3	0.0	0.0				Net	-0.6	0.0	0.3	0.0	0.0	0.3	0.0	0.0		
MS	2014	2014	2014	2014	2014	2014	2014	2014	2009				2015	2015	2015	2015	2015	2015	2015	2015	2010		
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	25.6	1.6	0.2	0.1	0.1	0.0	0.0	0.0	27.6	1.4	2010	Grass	28.3	0.5	0.5	0.2	0.2	0.0	0.0	0.0	29.7	2.2
2009	Tree	1.7	50.6	0.0	0.1	0.0	0.0	0.0	0.0	52.4	1.6	2010	Tree	1.4	44.9	0.0	0.2	0.0	0.0	0.0	0.0	46.5	2.4
2009	Bldg	0.0	0.0	2.9	0.0	0.1	0.0	0.0	0.0	3.0	0.5	2010	Bldg	0.0	0.0	5.1	0.0	0.2	0.0	0.0	0.0	5.4	1.1
2009	Road	0.0	0.1	0.0	5.0	0.0	0.0	0.0	0.0	5.1	0.7	2010	Road	0.0	0.0	0.0	7.9	0.0	0.0	0.0	0.0	7.9	1.3
2009	Other	0.0	0.0	0.2	0.0	3.4	0.0	0.0	0.0	3.6	0.6	2010	Other	0.0	0.0	0.2	0.0	6.1	0.0	0.0	0.0	6.3	1.2
2009	Water	0.0	0.1	0.0	0.1	0.0	0.3	0.1	0.0	0.6	0.2	2010	Water	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.5	0.3
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	1.6	0.4	2010	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.9	0.5
2009	Agri.	0.0	0.3	0.0	0.0	0.0	0.0	0.0	5.8	6.1	0.8	2010	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	2.8	0.8
2014	Total	27.3	52.7	3.3	5.3	3.6	0.3	1.7	5.8			2015	Total	29.7	45.3	5.8	8.6	6.5	0.2	0.9	2.8		
	SE	1.4	1.6	0.6	0.7	0.6	0.2	0.4	0.7				SE	2.2	2.4	1.1	1.4	1.2	0.2	0.5	0.8		
	Net	-0.3	0.3	0.3	0.2	0.0	-0.3	0.1	-0.3				Net	0.0	-1.2	0.5	0.7	0.2	-0.2	0.0	0.0		
MO		2015	2015	2015	2015	2015	2015	2015	2015	2010				2015	2015	2015	2015	2015	2015	2015	2015	2010	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2010	Grass	27.8	0.4	0.2	0.0	0.2	0.0	0.0	0.0	28.6	1.4	2010	Grass	27.1	0.2	0.4	0.0	0.4	0.0	0.0	0.0	28.0	1.9
2010	Tree	0.5	39.3	0.1	0.0	0.1	0.0	0.0	0.1	40.1	1.5	2010	Tree	0.5	38.9	0.2	0.0	0.2	0.0	0.0	0.0	39.8	2.1
2010	Bldg	0.0	0.0	5.3	0.0	0.0	0.0	0.0	0.0	5.3	0.7	2010	Bldg	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	8.0	1.2
2010	Road	0.0	0.0	0.0	7.2	0.0	0.0	0.0	0.1	7.3	0.8	2010	Road	0.0	0.0	0.0	9.6	0.0	0.0	0.0	0.0	9.6	1.3
2010	Other	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.1	5.9	0.7	2010	Other	0.0	0.0	0.0	0.0	8.9	0.0	0.0	0.2	9.1	1.2
2010	Water	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.1	2010	Water	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.2
2010	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	1.4	0.4	2010	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	1.5	0.5
2010	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.2	11.2	1.0	2010	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	3.8	0.8
2015	Total	28.3	39.7	5.6	7.2	6.1	0.2	1.4	11.5			2015	Total	27.6	39.1	8.5	9.6	9.5	0.2	1.5	4.0		
	SE	1.4	1.5	0.7	0.8	0.8	0.1	0.4	1.0				SE	1.9	2.1	1.2	1.3	1.2	0.2	0.5	0.8		
	Net	-0.3	-0.4	0.3	-0.1	0.2	0.0	0.0	0.3				Net	-0.4	-0.7	0.5	0.0	0.4	0.0	0.0	0.2		
MT		2014	2014	2014	2014	2014	2014	2014	2014	2009				2014	2014	2014	2014	2014	2014	2014	2014	2009	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	46.2	0.4	0.1	0.0	0.0	0.0	0.0	0.1	46.8	1.6	2009	Grass	34.5	0.0	1.2	0.0	0.0	0.0	0.0	0.0	35.7	5.2
2009	Tree	0.4	36.7	0.0	0.0	0.0	0.0	0.0	0.0	37.1	1.5	2009	Tree	2.4	21.4	0.0	0.0	0.0	0.0	0.0	0.0	23.8	4.6
2009	Bldg	0.1	0.0	1.6	0.0	0.0	0.0	0.0	0.0	1.7	0.4	2009	Bldg	1.2	0.0	10.7	0.0	0.0	0.0	0.0	0.0	11.9	3.5
2009	Road	0.0	0.1	0.0	2.7	0.0	0.0	0.0	0.0	2.8	0.5	2009	Road	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	16.7	4.1
2009	Other	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	1.6	0.4	2009	Other	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	6.0	2.6
2009	Water	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.2	2009	Water	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	2.4	1.7
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.0	0.6	0.2	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	9.0	0.9	2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.6	2.0
2014	Total	46.7	37.2	1.7	2.7	1.6	0.5	0.5	9.1			2014	Total	38.1	21.4	11.9	16.7	6.0	2.4	0.0	3.6		
	SE	1.6	1.5	0.4	0.5	0.4	0.2	0.2	0.9				SE	5.3	4.5	3.5	4.1	2.6	1.7	0.0	2.0		
	Net	-0.1	0.1	0.0	-0.1	0.0	0.1	-0.1	0.1				Net	2.4	-2.4	0.0	0.0	0.0	0.0	0.0	0.0		
NE		2014	2014	2014	2014	2014	2014	2014	2014	2009				2014	2014	2014	2014	2014	2014	2014	2014	2009	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	35.1	0.1	0.2	0.0	0.6	0.3	0.0	0.1	36.4	1.5	2009	Grass	33.4	0.2	0.3	0.0	0.5	0.5	0.0	0.0	35.0	2.0
2009	Tree	1.3	18.7	0.2	0.0	0.2	0.0	0.0	0.0	20.4	1.3	2009	Tree	1.0	20.3	0.3	0.0	0.2	0.0	0.0	0.0	21.9	1.7
2009	Bldg	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	9.4	0.9	2009	Bldg	0.0	0.0	11.7	0.0	0.0	0.0	0.0	0.0	11.7	1.3
2009	Road	0.1	0.0	0.0	8.9	0.0	0.0	0.0	0.0	9.0	0.9	2009	Road	0.2	0.0	0.0	10.1	0.0	0.0	0.0	0.0	10.3	1.3
2009	Other	0.3	0.0	0.0	0.0	8.5	0.0	0.0	0.0	8.8	0.9	2009	Other	0.3	0.0	0.0	0.0	11.4	0.0	0.0	0.0	11.7	1.3
2009	Water	0.0	0.0	0.0	0.0	0.2	0.5	0.0	0.0	0.7	0.3	2009	Water	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.7	0.3
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	0.2	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.2

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Table 7 (*continued*)

		Urban/community Land												Urban Land									
2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.9	14.9	1.1	2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6	8.6	1.2
2014	Total	36.8	18.8	9.8	8.9	9.5	0.8	0.4	15.0			2014	Total	35.0	20.5	12.4	10.1	12.4	0.9	0.2	8.6		
	SE	1.5	1.2	0.9	0.9	0.9	0.3	0.2	1.1				SE	2.0	1.7	1.4	1.3	1.4	0.4	0.2	1.2		
	Net	0.4	-1.6	0.4	-0.1	0.7	0.1	0.0	0.1				Net	0.0	-1.4	0.7	-0.2	0.7	0.2	0.0	0.0		
NV		2014	2014	2014	2014	2014	2014	2014	2014	2009				2015	2015	2015	2015	2015	2015	2015	2015	2010	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	11.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	11.1	1.0	2010	Grass	10.5	0.0	0.0	0.0	0.0	0.5	0.0	0.0	11.0	2.2
2009	Tree	0.0	26.8	0.0	0.0	0.1	0.1	0.0	0.0	27.0	1.4	2010	Tree	0.0	12.9	0.0	0.0	0.5	0.0	0.0	0.0	13.4	2.4
2009	Bldg	0.0	0.0	3.0	0.0	0.0	0.2	0.0	0.0	3.2	0.6	2010	Bldg	0.0	0.0	14.4	0.0	0.0	0.5	0.0	0.0	14.8	2.5
2009	Road	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0	2.8	0.5	2010	Road	0.0	0.0	0.0	10.5	0.0	0.0	0.0	0.0	10.5	2.1
2009	Other	0.0	0.0	0.0	0.0	5.9	0.0	0.0	0.0	5.9	0.7	2010	Other	0.0	0.0	0.0	0.0	19.1	0.0	0.0	0.0	19.1	2.7
2009	Water	0.3	0.0	0.2	0.0	0.9	45.8	0.0	0.0	47.2	1.6	2010	Water	1.4	0.0	0.5	0.0	1.4	26.8	0.0	0.0	30.1	3.2
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.4	0.2	2010	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	0.5
2009	Agri.	0.3	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.4	0.5	2010	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5
2014	Total	11.6	26.8	3.2	2.8	6.9	46.3	0.3	2.1			2015	Total	12.0	12.9	14.8	10.5	21.1	27.8	0.5	0.5		
	SE	1.0	1.4	0.6	0.5	0.8	1.6	0.2	0.5				SE	2.2	2.3	2.5	2.1	2.8	3.1	0.5	0.5		
	Net	0.5	-0.2	0.0	0.0	1.0	-0.9	-0.1	-0.3				Net	1.0	-0.5	0.0	0.0	1.9	-2.4	0.0	0.0		
NH	2015	2015	2015	2015	2015	2015	2015	2015	2009				2015	2015	2015	2015	2015	2015	2015	2015	2009		
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	18.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	18.6	1.2	2009	Grass	21.7	0.0	0.0	0.0	0.3	0.0	0.0	0.0	22.0	1.6
2009	Tree	0.8	63.0	0.0	0.1	0.4	0.1	0.0	0.0	64.4	1.5	2009	Tree	0.5	56.3	0.0	0.2	0.5	0.0	0.0	0.0	57.4	2.0
2009	Bldg	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	3.1	0.5	2009	Bldg	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0	4.4	0.8
2009	Road	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	1.9	0.4	2009	Road	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	2.7	0.6
2009	Other	0.1	0.0	0.0	0.0	6.0	0.0	0.0	0.0	6.1	0.8	2009	Other	0.2	0.0	0.0	0.0	8.2	0.0	0.0	0.0	8.4	1.1
2009	Water	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.1	2009	Water	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.2
2009	Soil	0.2	0.0	0.0	0.0	0.0	0.0	1.9	0.0	2.1	0.5	2009	Soil	0.2	0.0	0.0	0.0	0.0	0.0	2.1	0.0	2.2	0.6
2009	Agri.	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.5	3.6	0.6	2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.7	0.6
2015	Total	19.5	63.0	3.1	2.0	6.7	0.3	1.9	3.5			2015	Total	22.5	56.3	4.4	2.9	9.0	0.2	2.1	2.7		
	SE	1.3	1.5	0.5	0.4	0.8	0.2	0.4	0.6				SE	1.7	2.0	0.8	0.7	1.1	0.2	0.6	0.6		
	Net	0.9	-1.4	0.0	0.1	0.6	0.1	-0.2	-0.1				Net	0.5	-1.1	0.0	0.2	0.6	0.0	-0.2	0.0		
NJ	2013	2013	2013	2013	2013	2013	2013	2013	2008				2013	2013	2013	2013	2013	2013	2013	2013	2008		
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2008	Grass	22.3	0.0	0.0	0.0	0.0	0.1	0.0	0.1	22.5	1.3	2008	Grass	22.7	0.0	0.0	0.0	0.0	0.1	0.0	0.0	22.8	1.4
2008	Tree	0.4	47.7	0.1	0.0	0.1	0.1	0.0	0.0	48.4	1.6	2008	Tree	0.3	46.0	0.1	0.0	0.1	0.1	0.0	0.0	46.7	1.7
2008	Bldg	0.0	0.0	7.9	0.0	0.0	0.0	0.0	0.0	7.9	0.9	2008	Bldg	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	9.1	1.0
2008	Road	0.0	0.0	0.0	6.4	0.1	0.0	0.0	0.0	6.5	0.8	2008	Road	0.0	0.0	0.0	6.8	0.1	0.0	0.0	0.0	6.9	0.9
2008	Other	0.1	0.0	0.1	0.0	9.4	0.0	0.0	0.0	9.6	0.9	2008	Other	0.1	0.0	0.1	0.0	10.1	0.0	0.0	0.0	10.3	1.0
2008	Water	0.3	0.1	0.1	0.0	0.1	0.6	0.0	0.0	1.2	0.3	2008	Water	0.2	0.1	0.1	0.0	0.1	0.6	0.0	0.0	1.1	0.4
2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8	0.3	2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7	0.3
2008	Agri.	0.1	0.0	0.0	0.0	0.0	0.1	0.0	2.9	3.1	0.5	2008	Agri.	0.1	0.0	0.0	0.0	0.0	0.1	0.0	2.2	2.4	0.5
2013	Total	23.2	47.8	8.2	6.4	9.7	0.9	0.8	3.0			2013	Total	23.5	46.1	9.4	6.8	10.4	0.9	0.7	2.2		
	SE	1.3	1.6	0.9	0.8	0.9	0.3	0.3	0.5				SE	1.4	1.7	1.0	0.9	1.0	0.3	0.3	0.5		
	Net	0.7	-0.6	0.3	-0.1	0.1	-0.3	0.0	-0.1				Net	0.7	-0.6	0.3	-0.1	0.1	-0.2	0.0	-0.2		
NM	2015	2015	2015	2015	2015	2015	2015	2015	2010				2015	2015	2015	2015	2015	2015	2015	2015	2010		
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2010	Grass	58.6	0.4	0.0	0.1	0.4	0.1	0.3	0.0	59.9	1.5	2010	Grass	43.1	0.7	0.0	0.4	0.7	0.4	0.0	0.0	45.3	3.0
2010	Tree	0.1	21.6	0.0	0.2	0.0	0.0	0.0	0.0	21.9	1.3	2010	Tree	0.4	16.1	0.0	0.4	0.0	0.0	0.0	0.0	16.8	2.3
2010	Bldg	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	3.2	0.6	2010	Bldg	0.0	0.0	9.9	0.0	0.0	0.0	0.0	0.0	9.9	1.8
2010	Road	0.1	0.0	0.0	3.9	0.0	0.0	0.0	0.0	4.0	0.6	2010	Road	0.4	0.0	0.0	7.7	0.0	0.0	0.0	0.0	8.0	1.6
2010	Other	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	4.3	0.6	2010	Other	0.0	0.0	0.0	0.0	13.9	0.0	0.0	0.0	13.9	2.1
2010	Water	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.1	2010	Water	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.4
2010	Soil	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.1	2010	Soil	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.4

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Table 7 (*continued*)

		Urban/community Land												Urban Land									
2010	Agri.	0.0	0.1	0.0	0.0	0.0	0.0	0.0	6.2	6.3	0.8	2010	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	5.5	1.4
2015	Total	58.8	22.1	3.2	4.2	4.7	0.4	0.4	6.2			2015	Total	43.8	16.8	9.9	8.4	14.6	1.1	0.0	5.5		
	SE	1.6	1.3	0.6	0.6	0.7	0.2	0.2	0.8				SE	3.0	2.3	1.8	1.7	2.1	0.6	0.0	1.4		
	Net	-1.1	0.2	0.0	0.2	0.4	0.2	0.2	-0.1				Net	-1.5	0.0	0.0	0.4	0.7	0.7	-0.4	0.0		
NY		2013	2013	2013	2013	2013	2013	2013	2013	2008				2013	2013	2013	2013	2013	2013	2013	2013	2008	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2008	Grass	17.7	0.3	0.0	0.0	0.2	0.0	0.0	0.0	18.2	1.2	2008	Grass	21.0	0.4	0.0	0.0	0.3	0.0	0.0	0.0	21.7	1.5
2008	Tree	0.8	52.1	0.0	0.0	0.3	0.2	0.0	0.0	53.4	1.6	2008	Tree	1.0	48.2	0.0	0.0	0.4	0.3	0.0	0.0	49.9	1.8
2008	Bldg	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	6.7	0.8	2008	Bldg	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	8.7	1.0
2008	Road	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	6.1	0.8	2008	Road	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	7.5	1.0
2008	Other	0.0	0.0	0.0	0.0	6.1	0.0	0.0	0.0	6.1	0.8	2008	Other	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	7.5	1.0
2008	Water	0.1	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.4	0.2	2008	Water	0.1	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.5	0.3
2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7	0.3	2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	0.2
2008	Agri.	0.1	0.0	0.0	0.1	0.0	0.0	0.0	8.2	8.4	0.9	2008	Agri.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	3.7	3.8	0.7
2013	Total	18.7	52.4	6.7	6.2	6.6	0.5	0.7	8.2			2013	Total	22.1	48.6	8.7	7.6	8.2	0.7	0.4	3.7		
	SE	1.2	1.6	0.8	0.8	0.8	0.2	0.3	0.9				SE	1.5	1.8	1.0	1.0	1.0	0.3	0.2	0.7		
	Net	0.5	-1.0	0.0	0.1	0.5	0.1	0.0	-0.2				Net	0.4	-1.2	0.0	0.1	0.7	0.1	0.0	-0.1		
NC	2015	2015	2015	2015	2015	2015	2015	2015	2010				2015	2015	2015	2015	2015	2015	2015	2015	2010		
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2010	Grass	22.0	0.1	0.2	0.0	0.3	0.0	0.0	0.0	22.6	1.3	2010	Grass	23.9	0.1	0.1	0.0	0.3	0.0	0.0	0.0	24.4	1.6
2010	Tree	0.4	53.8	0.1	0.0	0.3	0.1	0.0	0.1	54.8	1.6	2010	Tree	0.4	52.0	0.1	0.0	0.4	0.0	0.0	0.0	52.9	1.9
2010	Bldg	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	5.6	0.7	2010	Bldg	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	6.8	0.9
2010	Road	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	3.1	0.5	2010	Road	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	4.1	0.7
2010	Other	0.2	0.0	0.2	0.1	6.2	0.2	0.0	0.0	6.9	0.8	2010	Other	0.3	0.0	0.3	0.1	6.4	0.3	0.0	0.0	7.4	1.0
2010	Water	0.1	0.1	0.0	0.0	0.0	0.5	0.0	0.0	0.7	0.3	2010	Water	0.1	0.1	0.0	0.0	0.0	0.4	0.0	0.0	0.7	0.3
2010	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.6	0.2	2010	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	0.2
2010	Agri.	0.0	0.2	0.0	0.0	0.1	0.0	0.0	5.4	5.7	0.7	2010	Agri.	0.0	0.1	0.0	0.0	0.1	0.0	0.0	2.9	3.2	0.7
2015	Total	22.7	54.2	6.1	3.2	6.9	0.8	0.6	5.5			2015	Total	24.7	52.4	7.4	4.2	7.3	0.7	0.4	2.9		
	SE	1.3	1.6	0.8	0.6	0.8	0.3	0.2	0.7				SE	1.6	1.9	1.0	0.7	1.0	0.3	0.2	0.6		
	Net	0.1	-0.6	0.5	0.1	0.0	0.1	0.0	-0.2				Net	0.3	-0.6	0.6	0.1	-0.1	0.0	0.0	-0.3		
ND	2013	2013	2013	2013	2013	2013	2013	2013	2009				2014	2014	2014	2014	2014	2014	2014	2014	2009		
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	43.6	0.2	0.4	0.1	0.4	0.3	0.0	0.3	45.3	1.6	2009	Grass	37.5	0.0	1.1	0.4	1.1	0.7	0.0	0.0	40.8	3.0
2009	Tree	0.7	9.9	0.0	0.0	0.0	0.0	0.0	0.1	10.7	1.0	2009	Tree	1.1	10.1	0.0	0.0	0.0	0.0	0.0	0.0	11.2	1.9
2009	Bldg	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	3.8	0.6	2009	Bldg	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	9.4	1.8
2009	Road	0.2	0.0	0.0	6.3	0.0	0.0	0.0	0.0	6.5	0.8	2009	Road	0.4	0.0	0.0	10.9	0.0	0.0	0.0	0.0	11.2	1.9
2009	Other	0.1	0.0	0.1	0.0	4.1	0.0	0.0	0.0	4.3	0.6	2009	Other	0.4	0.0	0.4	0.0	12.0	0.0	0.0	0.0	12.7	2.0
2009	Water	0.4	0.0	0.1	0.1	0.0	0.6	0.0	0.2	1.4	0.4	2009	Water	1.5	0.0	0.4	0.0	0.0	1.1	0.0	0.4	3.4	1.1
2009	Soil	0.1	0.0	0.0	0.0	0.0	0.0	0.9	0.0	1.0	0.3	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7	0.5
2009	Agri.	1.0	0.0	0.0	0.0	0.1	0.2	0.1	25.6	27.0	1.4	2009	Agri.	1.1	0.0	0.0	0.0	0.0	0.4	0.4	8.6	10.5	1.9
2013	Total	46.1	10.1	4.4	6.5	4.6	1.1	1.0	26.2			2014	Total	41.9	10.1	11.2	11.2	13.1	2.2	1.1	9.0		
	SE	1.6	1.0	0.6	0.8	0.7	0.3	0.3	1.4				SE	3.0	1.8	1.9	1.9	2.1	0.9	0.6	1.8		
	Net	0.8	-0.6	0.6	0.0	0.3	-0.3	0.0	-0.8				Net	1.1	-1.1	1.9	0.0	0.4	-1.1	0.4	-1.5		
OH		2014	2014	2014	2014	2014	2014	2014	2014	2009				2014	2014	2014	2014	2014	2014	2014	2014	2009	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	29.3	0.1	0.1	0.0	0.4	0.3	0.0	0.0	30.2	1.5	2009	Grass	29.4	0.1	0.1	0.0	0.5	0.3	0.0	0.0	30.4	1.6
2009	Tree	0.7	37.8	0.1	0.2	0.2	0.1	0.1	0.0	39.2	1.5	2009	Tree	0.9	37.2	0.1	0.3	0.3	0.1	0.1	0.0	39.0	1.7
2009	Bldg	0.1	0.1	7.1	0.0	0.0	0.0	0.0	0.0	7.3	0.8	2009	Bldg	0.1	0.1	8.1	0.0	0.0	0.0	0.0	0.0	8.3	1.0
2009	Road	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	4.9	0.7	2009	Road	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	5.8	0.8
2009	Other	0.0	0.1	0.0	0.0	7.2	0.0	0.0	0.0	7.3	0.8	2009	Other	0.0	0.1	0.0	0.0	8.5	0.0	0.0	0.0	8.6	1.0
2009	Water	0.2	0.0	0.2	0.2	0.0	0.7	0.0	0.0	1.3	0.4	2009	Water	0.1	0.0	0.3	0.1	0.0	0.9	0.0	0.0	1.4	0.4
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8	0.3	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0	0.4

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Table 7 (*continued*)

		Urban/community Land												Urban Land									
2009	Agri.	0.3	0.1	0.1	0.0	0.0	0.0	0.0	8.5	9.0	0.9	2009	Agri.	0.3	0.0	0.1	0.0	0.0	0.0	0.0	5.1	5.5	0.8
2014	Total	30.6	38.2	7.6	5.3	7.8	1.1	0.9	8.5			2014	Total	30.8	37.6	8.7	6.2	9.2	1.3	1.2	5.1		
	SE	1.5	1.5	0.8	0.7	0.8	0.3	0.3	0.9				SE	1.7	1.7	1.0	0.9	1.0	0.4	0.4	0.8		
	Net	0.4	-1.0	0.3	0.4	0.5	-0.2	0.1	-0.5				Net	0.4	-1.4	0.4	0.4	0.6	-0.1	0.1	-0.4		
OK	2014	2014 Grass	2014 Tree	2014 Bldg	2014 Road	2014 Other	2014 Water	2014 Soil	2009 Agri	Total	SE		2015	2015 Grass	2015 Tree	2015 Bldg	2015 Road	2015 Other	2015 Water	2015 Soil	2010 Agri	Total	SE
2009	Grass	38.9	0.7	0.2	0.1	0.2	0.1	0.0	0.1	40.3	1.6	2010	Grass	34.9	0.4	0.4	0.4	0.8	0.0	0.0	0.0	36.9	3.0
2009	Tree	2.1	33.2	0.1	0.0	0.2	0.0	0.0	0.0	35.6	1.5	2010	Tree	4.3	23.9	0.0	0.0	0.8	0.0	0.0	0.0	29.0	2.8
2009	Bldg	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	2.1	0.5	2010	Bldg	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	7.1	1.6
2009	Road	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	4.1	0.6	2010	Road	0.0	0.0	0.0	10.6	0.0	0.0	0.0	0.0	10.6	1.9
2009	Other	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	3.3	0.6	2010	Other	0.0	0.0	0.0	0.0	9.8	0.0	0.0	0.0	9.8	1.9
2009	Water	0.4	0.1	0.0	0.1	0.0	0.3	0.0	0.1	1.0	0.3	2010	Water	0.8	0.0	0.0	0.4	0.0	0.4	0.0	0.0	1.6	0.8
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	0.2	2010	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	0.4
2009	Agri.	0.1	0.0	0.0	0.0	0.1	0.0	0.0	12.9	13.1	1.1	2010	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	4.7	1.3
2014	Total	41.5	34.0	2.4	4.3	3.8	0.4	0.5	13.1			2015	Total	40.0	24.3	7.5	11.4	11.4	0.4	0.4	4.7		
	SE	1.6	1.5	0.5	0.6	0.6	0.2	0.2	1.1				SE	3.1	2.7	1.6	2.0	2.0	0.4	0.4	1.3		
	Net	1.2	-1.6	0.3	0.2	0.5	-0.6	0.0	0.0				Net	3.1	-4.7	0.4	0.8	1.6	-1.2	0.0	0.0		
OR		2014 Grass	2014 Tree	2014 Bldg	2014 Road	2014 Other	2014 Water	2014 Soil	2014 Agri	2008 Total	SE			2014 Grass	2014 Tree	2014 Bldg	2014 Road	2014 Other	2014 Water	2014 Soil	2014 Agri	2009 Total	SE
2008	Grass	32.6	0.4	0.2	0.0	0.2	0.2	0.0	0.0	33.6	1.5	2009	Grass	29.3	0.2	0.3	0.0	0.3	0.2	0.0	0.0	30.3	1.9
2008	Tree	1.2	33.5	0.3	0.1	0.3	0.1	0.0	0.1	35.6	1.5	2009	Tree	1.1	30.6	0.5	0.2	0.5	0.0	0.0	0.0	32.9	1.9
2008	Bldg	0.1	0.0	7.1	0.0	0.0	0.0	0.0	0.0	7.2	0.8	2009	Bldg	0.2	0.0	10.3	0.0	0.0	0.0	0.0	0.0	10.5	1.2
2008	Road	0.0	0.0	0.0	7.8	0.0	0.0	0.0	0.0	7.8	0.8	2009	Road	0.0	0.0	0.0	10.6	0.0	0.0	0.0	0.0	10.6	1.2
2008	Other	0.1	0.0	0.0	0.1	5.5	0.0	0.0	0.0	5.7	0.7	2009	Other	0.2	0.0	0.0	0.2	7.9	0.0	0.0	0.0	8.2	1.1
2008	Water	0.2	0.0	0.0	0.1	0.0	0.8	0.0	0.0	1.1	0.3	2009	Water	0.3	0.0	0.0	0.2	0.0	1.0	0.0	0.0	1.5	0.5
2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7	0.3	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7	0.3
2008	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	8.3	0.9	2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	5.4	0.9
2014	Total	34.2	33.9	7.6	8.1	6.0	1.1	0.7	8.4			2014	Total	31.1	30.8	11.1	11.1	8.7	1.1	0.7	5.4		
	SE	1.5	1.5	0.8	0.9	0.8	0.3	0.3	0.9				SE	1.9	1.9	1.3	1.3	1.1	0.4	0.3	0.9		
	Net	0.6	-1.7	0.4	0.3	0.3	0.0	0.0	0.1				Net	0.8	-2.1	0.7	0.5	0.5	-0.3	0.0	0.0		
PA	2013	2013 Grass	2013 Tree	2013 Bldg	2013 Road	2013 Other	2013 Water	2013 Soil	2007 Agri	Total	SE		2013	2013 Grass	2013 Tree	2013 Bldg	2013 Road	2013 Other	2013 Water	2013 Soil	2007 Agri	Total	SE
2007	Grass	24.2	0.2	0.1	0.2	0.2	0.1	0.0	0.0	25.0	1.4	2007	Grass	26.2	0.1	0.1	0.3	0.3	0.1	0.0	0.0	27.1	1.6
2007	Tree	0.4	46.0	0.0	0.2	0.2	0.0	0.0	0.0	46.8	1.6	2007	Tree	0.4	40.6	0.0	0.3	0.1	0.0	0.0	0.0	41.4	1.8
2007	Bldg	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	6.0	0.8	2007	Bldg	0.0	0.0	7.2	0.0	0.0	0.0	0.0	0.0	7.2	0.9
2007	Road	0.0	0.0	0.0	7.2	0.0	0.0	0.0	0.0	7.2	0.8	2007	Road	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0	8.6	1.0
2007	Other	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	5.5	0.7	2007	Other	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	6.7	0.9
2007	Water	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.1	2007	Water	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.2
2007	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	0.2	2007	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	0.2
2007	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	8.7	8.8	0.9	2007	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.1	8.2	8.4	1.0
2013	Total	24.6	46.2	6.1	7.6	5.9	0.3	0.6	8.7			2013	Total	26.6	40.7	7.3	9.1	7.1	0.4	0.5	8.2		
	SE	1.4	1.6	0.8	0.8	0.7	0.2	0.2	0.9				SE	1.6	1.8	0.9	1.0	0.9	0.2	0.3	1.0		
	Net	-0.4	-0.6	0.1	0.4	0.4	0.1	0.1	-0.1				Net	-0.5	-0.6	0.1	0.5	0.4	0.1	0.1	-0.1		
RI	2015	2015 Grass	2015 Tree	2015 Bldg	2015 Road	2015 Other	2015 Water	2015 Soil	2010 Agri	Total	SE		2015	2015 Grass	2015 Tree	2015 Bldg	2015 Road	2015 Other	2015 Water	2015 Soil	2010 Agri	Total	SE
2010	Grass	19.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	19.5	1.3	2010	Grass	19.8	0.1	0.0	0.0	0.0	0.3	0.0	0.0	20.2	1.3
2010	Tree	1.3	52.2	0.2	0.3	0.1	0.4	0.0	0.0	54.5	1.6	2010	Tree	1.2	50.5	0.2	0.3	0.0	0.3	0.0	0.0	52.6	1.7
2010	Bldg	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0	5.5	0.7	2010	Bldg	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	5.8	0.8
2010	Road	0.1	0.0	0.0	8.8	0.0	0.0	0.0	0.0	8.9	0.9	2010	Road	0.1	0.0	0.0	9.4	0.0	0.0	0.0	0.0	9.5	1.0
2010	Other	0.1	0.0	0.0	0.0	6.8	0.0	0.0	0.0	6.9	0.8	2010	Other	0.1	0.0	0.0	0.0	7.5	0.0	0.0	0.0	7.6	0.9
2010	Water	0.1	0.0	0.1	0.1	0.0	0.6	0.0	0.0	0.9	0.3	2010	Water	0.1	0.0	0.0	0.1	0.0	0.4	0.0	0.0	0.7	0.3
2010	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	1.5	0.4	2010	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	1.4	0.4

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Table 7 (*continued*)

		Urban/community Land												Urban Land									
2010	Agri.	0.0	0.0	0.0	0.0	0.1	0.0	0.0	2.2	2.3	0.5	2010	Agri.	0.0	0.0	0.0	0.0	0.1	0.0	0.0	2.1	2.2	0.5
2015	Total	20.7	52.3	5.8	9.2	7.0	1.3	1.5	2.2			2015	Total	21.3	50.6	6.0	9.9	7.6	1.1	1.4	2.1		
	SE	1.3	1.6	0.7	0.9	0.8	0.4	0.4	0.5				SE	1.4	1.7	0.8	1.0	0.9	0.3	0.4	0.5		
	Net	1.2	-2.2	0.3	0.3	0.1	0.4	0.0	-0.1				Net	1.1	-2.0	0.2	0.3	0.0	0.4	0.0	-0.1		
SC	2014	2014 Grass	2014 Tree	2014 Bldg	2014 Road	2014 Other	2014 Water	2014 Soil	2009 Agri	Total	SE		2014	2014 Grass	2014 Tree	2014 Bldg	2014 Road	2014 Other	2014 Water	2014 Soil	2009 Agri	Total	SE
2009	Grass	27.5	1.1	0.1	0.0	0.0	0.1	0.1	0.0	28.9	1.4	2009	Grass	27.8	0.8	0.2	0.0	0.0	0.2	0.0	0.0	28.8	1.8
2009	Tree	1.8	52.2	0.1	0.1	0.2	0.2	0.1	0.1	54.8	1.6	2009	Tree	1.4	48.9	0.2	0.2	0.3	0.2	0.2	0.0	51.1	1.9
2009	Bldg	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	3.2	0.6	2009	Bldg	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	4.6	0.8
2009	Road	0.0	0.0	0.0	5.2	0.0	0.0	0.0	0.0	5.2	0.7	2009	Road	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	6.7	1.0
2009	Other	0.1	0.0	0.0	0.0	3.5	0.0	0.0	0.0	3.6	0.6	2009	Other	0.2	0.0	0.0	0.0	4.9	0.0	0.0	0.0	5.0	0.8
2009	Water	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.6	0.2	2009	Water	0.3	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.8	0.3
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	1.4	0.4	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	1.7	0.5
2009	Agri.	0.0	0.3	0.0	0.0	0.0	0.0	0.0	2.0	2.3	0.5	2009	Agri.	0.0	0.2	0.0	0.0	0.0	0.0	0.0	1.2	1.4	0.5
2014	Total	29.7	53.6	3.4	5.3	3.7	0.6	1.6	2.1			2014	Total	29.6	49.8	4.9	6.8	5.2	0.8	1.8	1.2		
	SE	1.4	1.6	0.6	0.7	0.6	0.2	0.4	0.5				SE	1.8	1.9	0.8	1.0	0.9	0.3	0.5	0.4		
	Net	0.8	-1.2	0.2	0.1	0.1	0.0	0.2	-0.2				Net	0.8	-1.4	0.3	0.2	0.2	0.0	0.2	-0.2		
SD	2014	2014 Grass	2014 Tree	2014 Bldg	2014 Road	2014 Other	2014 Water	2014 Soil	2008 Agri	Total	SE		2014	2014 Grass	2014 Tree	2014 Bldg	2014 Road	2014 Other	2014 Water	2014 Soil	2009 Agri	Total	SE
2008	Grass	51.1	0.1	0.1	0.0	0.3	0.3	0.0	0.1	52.0	1.6	2009	Grass	42.3	0.4	0.4	0.0	0.7	0.7	0.0	0.0	44.5	3.0
2008	Tree	0.4	13.5	0.0	0.0	0.0	0.0	0.0	0.0	13.9	1.1	2009	Tree	0.0	18.1	0.0	0.0	0.0	0.0	0.0	0.0	18.1	2.3
2008	Bldg	0.1	0.0	3.1	0.0	0.0	0.0	0.0	0.0	3.2	0.6	2009	Bldg	0.4	0.0	7.5	0.0	0.0	0.0	0.0	0.0	7.8	1.6
2008	Road	0.1	0.0	0.0	5.4	0.0	0.0	0.0	0.0	5.5	0.7	2009	Road	0.0	0.0	0.0	9.6	0.0	0.0	0.0	0.0	9.6	1.8
2008	Other	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	3.5	0.6	2009	Other	0.0	0.0	0.0	0.0	8.2	0.0	0.0	0.0	8.2	1.6
2008	Water	0.1	0.0	0.0	0.0	0.0	2.3	0.0	0.0	2.4	0.5	2009	Water	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	2.8	1.0
2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	0.2	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.1	0.6
2008	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	19.0	1.2	2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8	7.8	1.6
2014	Total	51.8	13.6	3.2	5.4	3.8	2.6	0.5	19.1			2014	Total	42.7	18.5	7.8	9.6	8.9	3.6	1.1	7.8		
	SE	1.6	1.1	0.6	0.7	0.6	0.5	0.2	1.2				SE	3.0	2.3	1.6	1.8	1.7	1.1	0.6	1.6		
	Net	-0.2	-0.3	0.0	-0.1	0.3	0.2	0.0	0.1				Net	-1.8	0.4	0.0	0.0	0.7	0.7	0.0	0.0		
TN		2013 Grass	2013 Tree	2013 Bldg	2013 Road	2013 Other	2013 Water	2013 Soil	2013 Agri	2008 Total	SE		2013	2013 Grass	2013 Tree	2013 Bldg	2013 Road	2013 Other	2013 Water	2013 Soil	2008 Agri	Total	SE
2008	Grass	25.9	0.4	0.0	0.0	0.3	0.3	0.1	0.1	27.1	1.4	2008	Grass	30.7	0.2	0.0	0.0	0.6	0.4	0.0	0.0	31.8	2.0
2008	Tree	1.6	46.5	0.0	0.1	0.2	0.0	0.0	0.0	48.4	1.6	2008	Tree	1.5	40.9	0.0	0.2	0.4	0.0	0.0	0.0	43.0	2.2
2008	Bldg	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	2.9	0.5	2008	Bldg	0.0	0.0	5.1	0.0	0.0	0.0	0.0	0.0	5.1	1.0
2008	Road	0.0	0.0	0.0	4.8	0.1	0.0	0.0	0.0	4.9	0.7	2008	Road	0.0	0.0	0.0	6.4	0.2	0.0	0.0	0.0	6.6	1.1
2008	Other	0.1	0.0	0.0	0.0	4.5	0.0	0.0	0.0	4.6	0.7	2008	Other	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	7.0	1.1
2008	Water	0.1	0.0	0.0	0.0	0.1	0.4	0.0	0.0	0.6	0.2	2008	Water	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.4	0.3
2008	Soil	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.6	0.2	2008	Soil	0.2	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.6	0.3
2008	Agri.	0.0	0.0	0.0	0.1	0.1	0.1	0.0	10.6	10.9	1.0	2008	Agri.	0.0	0.0	0.0	0.0	0.0	0.2	0.0	5.3	5.5	1.0
2013	Total	27.8	46.9	2.9	5.0	5.3	0.8	0.6	10.7			2013	Total	32.4	41.1	5.1	6.6	8.3	0.8	0.4	5.3		
	SE	1.4	1.6	0.5	0.7	0.7	0.3	0.2	1.0				SE	2.0	2.1	1.0	1.1	1.2	0.4	0.3	1.0		
	Net	0.7	-1.5	0.0	0.1	0.7	0.2	0.0	-0.2				Net	0.6	-1.9	0.0	0.0	1.3	0.4	-0.2	-0.2		
TX		2015 Grass	2015 Tree	2015 Bldg	2015 Road	2015 Other	2015 Water	2015 Soil	2015 Agri	2009 Total	SE			2015 Grass	2015 Tree	2015 Bldg	2015 Road	2015 Other	2015 Water	2015 Soil	2015 Agri	2009 Total	SE
2009	Grass	35.5	0.0	0.2	0.1	0.5	0.0	0.1	0.0	36.4	1.5	2009	Grass	32.2	0.0	0.2	0.2	0.3	0.0	0.2	0.0	33.0	1.9
2009	Tree	0.5	28.2	0.0	0.0	0.2	0.0	0.0	0.0	28.9	1.4	2009	Tree	0.7	26.7	0.0	0.0	0.3	0.0	0.0	0.0	27.7	1.8
2009	Bldg	0.0	0.0	7.1	0.0	0.1	0.0	0.0	0.0	7.2	0.8	2009	Bldg	0.0	0.0	10.9	0.0	0.2	0.0	0.0	0.0	11.1	1.3
2009	Road	0.1	0.0	0.0	9.0	0.0	0.0	0.0	0.0	9.1	0.9	2009	Road	0.2	0.0	0.0	11.7	0.0	0.0	0.0	0.0	11.9	1.3
2009	Other	0.1	0.0	0.1	0.1	6.2	0.0	0.0	0.0	6.5	0.8	2009	Other	0.0	0.0	0.2	0.2	8.9	0.0	0.0	0.0	9.2	1.2
2009	Water	0.1	0.0	0.1	0.0	0.0	0.3	0.0	0.0	0.5	0.2	2009	Water	0.2	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.5	0.3
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	0.2	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7	0.3

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Table 7 (*continued*)

		Urban/community Land												Urban Land									
2009	Agri.	0.0	0.1	0.0	0.1	0.0	0.1	0.0	10.6	10.9	1.0	2009	Agri.	0.0	0.0	0.0	0.2	0.0	0.0	0.0	5.8	5.9	0.9
2015	Total	36.3	28.3	7.5	9.3	7.0	0.4	0.6	10.6			2015	Total	33.2	26.7	11.4	12.2	9.7	0.2	0.8	5.8		
	SE	1.5	1.4	0.8	0.9	0.8	0.2	0.2	1.0				SE	1.9	1.8	1.3	1.3	1.2	0.2	0.4	0.9		
	Net	-0.1	-0.6	0.3	0.2	0.5	-0.1	0.1	-0.3				Net	0.2	-1.0	0.3	0.3	0.5	-0.3	0.2	-0.2		
UT		2015	2015	2015	2015	2015	2015	2015	2015	2010				2015	2015	2015	2015	2015	2015	2015	2015	2010	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2010	Grass	52.0	0.2	0.5	0.2	0.4	0.0	0.0	0.1	53.4	1.6	2010	Grass	36.0	0.3	1.3	0.0	1.0	0.0	0.0	0.0	38.6	2.8
2010	Tree	0.3	16.3	0.0	0.0	0.1	0.0	0.0	0.0	16.7	1.2	2010	Tree	0.6	14.3	0.0	0.0	0.3	0.0	0.0	0.0	15.3	2.0
2010	Bldg	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	3.4	0.6	2010	Bldg	0.0	0.0	10.1	0.0	0.0	0.0	0.0	0.0	10.1	1.7
2010	Road	0.1	0.0	0.0	3.8	0.0	0.0	0.0	0.0	3.9	0.6	2010	Road	0.0	0.0	0.0	10.1	0.0	0.0	0.0	0.0	10.1	1.7
2010	Other	0.0	0.1	0.0	0.0	5.1	0.0	0.0	0.0	5.2	0.7	2010	Other	0.0	0.3	0.0	0.0	13.6	0.0	0.0	0.0	14.0	2.0
2010	Water	0.1	0.0	0.1	0.0	0.0	0.4	0.0	0.0	0.6	0.2	2010	Water	0.3	0.0	0.3	0.0	0.0	0.6	0.0	0.0	1.3	0.6
2010	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	0.2	2010	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.6	0.5
2010	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.4	16.4	1.2	2010	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	10.1	1.7
2015	Total	52.5	16.6	4.0	4.0	5.6	0.4	0.4	16.5			2015	Total	37.0	14.9	11.7	10.1	14.9	0.6	0.6	10.1		
	SE	1.6	1.2	0.6	0.6	0.7	0.2	0.2	1.2				SE	2.8	2.0	1.8	1.7	2.0	0.5	0.5	1.7		
	Net	-0.9	-0.1	0.6	0.1	0.4	-0.2	0.0	0.1				Net	-1.6	-0.3	1.6	0.0	1.0	-0.6	0.0	0.0		
VT		2015	2015	2015	2015	2015	2015	2015	2015	2010				2015	2015	2015	2015	2015	2015	2015	2015	2010	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2010	Grass	23.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	23.3	1.3	2010	Grass	25.6	0.2	0.0	0.2	0.2	0.0	0.0	0.0	26.2	2.0
2010	Tree	0.7	56.5	0.0	0.1	0.2	0.0	0.0	0.0	57.5	1.6	2010	Tree	1.1	49.0	0.0	0.2	0.4	0.0	0.0	0.0	50.8	2.3
2010	Bldg	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	3.4	0.6	2010	Bldg	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	5.8	1.1
2010	Road	0.0	0.0	0.0	4.1	0.1	0.0	0.0	0.0	4.2	0.6	2010	Road	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	5.4	1.0
2010	Other	0.1	0.0	0.0	0.0	4.5	0.0	0.0	0.0	4.6	0.7	2010	Other	0.2	0.0	0.0	0.0	6.7	0.0	0.0	0.0	6.9	1.2
2010	Water	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	2010	Water	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.2
2010	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.3	0.4	2010	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.9	0.4
2010	Agri.	0.0	0.0	0.0	0.0	0.1	0.0	0.0	5.5	5.6	0.7	2010	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	3.9	0.9
2015	Total	23.8	56.6	3.4	4.3	5.0	0.1	1.3	5.5			2015	Total	26.9	49.2	5.8	5.8	7.3	0.2	0.9	3.9		
	SE	1.3	1.6	0.6	0.6	0.7	0.1	0.4	0.7				SE	2.1	2.3	1.1	1.1	1.2	0.2	0.4	0.9		
	Net	0.5	-0.9	0.0	0.1	0.4	0.0	0.0	-0.1				Net	0.6	-1.5	0.0	0.4	0.4	0.0	0.0	0.0		
VA		2014	2014	2014	2014	2014	2014	2014	2014	2009				2014	2014	2014	2014	2014	2014	2014	2014	2009	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	23.1	0.9	0.1	0.0	0.3	0.0	0.0	0.0	24.4	1.4	2009	Grass	26.9	0.4	0.0	0.0	0.4	0.0	0.0	0.0	27.6	1.9
2009	Tree	0.9	50.1	0.2	0.2	0.1	0.0	0.0	0.0	51.5	1.6	2009	Tree	0.7	44.8	0.4	0.4	0.2	0.0	0.0	0.0	46.4	2.1
2009	Bldg	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0	3.9	0.6	2009	Bldg	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	5.2	0.9
2009	Road	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	5.4	0.7	2009	Road	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	7.5	1.1
2009	Other	0.1	0.0	0.0	0.0	5.7	0.0	0.0	0.0	5.8	0.7	2009	Other	0.2	0.0	0.0	0.0	9.9	0.0	0.0	0.0	10.0	1.3
2009	Water	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	2009	Water	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.2
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0	0.3	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7	0.4
2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	7.9	0.9	2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	0.6
2014	Total	24.1	51.0	4.2	5.6	6.1	0.1	1.0	7.9			2014	Total	27.8	45.2	5.6	7.9	10.4	0.2	0.7	2.3		
	SE	1.4	1.6	0.6	0.7	0.8	0.1	0.3	0.9				SE	1.9	2.1	1.0	1.1	1.3	0.2	0.4	0.6		
	Net	-0.3	-0.5	0.3	0.2	0.3	0.0	0.0	0.0				Net	0.2	-1.3	0.4	0.4	0.4	0.0	0.0	0.0		
WA		2014	2014	2014	2014	2014	2014	2014	2014	2009			2015	2015	2015	2015	2015	2015	2015	2015	2010		
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	30.2	0.6	0.3	0.3	0.2	0.2	0.0	0.0	31.8	1.5	2010	Grass	31.2	0.6	0.5	0.3	0.2	0.2	0.0	0.0	33.0	1.9
2009	Tree	0.9	41.0	0.1	0.0	0.2	0.0	0.0	0.1	42.3	1.6	2010	Tree	0.5	34.5	0.0	0.0	0.3	0.0	0.0	0.0	35.3	1.9
2009	Bldg	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	6.7	0.8	2010	Bldg	0.0	0.0	10.2	0.0	0.0	0.0	0.0	0.0	10.2	1.2
2009	Road	0.1	0.0	0.0	6.3	0.0	0.0	0.0	0.0	6.4	0.8	2010	Road	0.2	0.0	0.0	8.4	0.0	0.0	0.0	0.0	8.6	1.1
2009	Other	0.1	0.0	0.0	0.0	6.3	0.0	0.0	0.0	6.4	0.8	2010	Other	0.2	0.0	0.0	0.0	8.6	0.0	0.0	0.0	8.7	1.1
2009	Water	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.1	2010	Water	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.2
2009	Soil	0.2	0.0	0.0	0.0	0.0	0.0	0.9	0.0	1.1	0.3	2010	Soil	0.3	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.3	0.5

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Table 7 (*continued*)

		Urban/community Land												Urban Land							
2009	Agri.	0.1	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.1	0.7	2010	Agri.	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.8	0.7
2014	Total	31.6	41.6	7.1	6.6	6.7	0.4	0.9	5.1			2015	Total	32.5	35.1	10.7	8.7	9.1	0.3	1.0	2.6		
	SE	1.5	1.6	0.8	0.8	0.8	0.2	0.3	0.7				SE	1.9	1.9	1.2	1.1	1.2	0.2	0.4	0.6		
	Net	-0.2	-0.7	0.4	0.2	0.3	0.2	-0.2	0.0				Net	-0.5	-0.2	0.5	0.2	0.3	0.2	-0.3	-0.2		
WV		2014	2014	2014	2014	2014	2014	2014	2014	2008			2014	2014	2014	2014	2014	2014	2014	2014	2008		
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2008	Grass	17.1	0.2	0.0	0.0	0.3	0.0	0.0	0.1	17.7	1.2	2008	Grass	19.3	0.4	0.0	0.0	0.4	0.0	0.0	0.0	20.1	1.7
2008	Tree	0.3	60.9	0.1	0.1	0.3	0.1	0.0	0.1	61.9	1.5	2008	Tree	0.4	49.0	0.2	0.2	0.4	0.2	0.0	0.2	50.5	2.1
2008	Bldg	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	5.9	0.7	2008	Bldg	0.0	0.0	9.8	0.0	0.0	0.0	0.0	0.0	9.8	1.3
2008	Road	0.1	0.0	0.0	3.9	0.0	0.0	0.0	0.0	4.0	0.6	2008	Road	0.2	0.0	0.0	5.2	0.0	0.0	0.0	0.0	5.3	1.0
2008	Other	0.0	0.2	0.1	0.0	7.9	0.0	0.0	0.0	8.2	0.9	2008	Other	0.0	0.4	0.0	0.0	11.4	0.0	0.0	0.0	11.8	1.4
2008	Water	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.1	2008	Water	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.3
2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.1	2008	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.2
2008	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	0.4	2008	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.6
2014	Total	17.5	61.3	6.1	4.0	8.5	0.3	0.2	2.1			2014	Total	19.9	49.7	9.9	5.3	12.2	0.6	0.2	2.2		
	SE	1.2	1.5	0.8	0.6	0.9	0.2	0.1	0.5				SE	1.7	2.1	1.3	1.0	1.4	0.3	0.2	0.6		
	Net	-0.2	-0.6	0.2	0.0	0.3	0.1	0.0	0.2				Net	-0.2	-0.7	0.2	0.0	0.4	0.2	0.0	0.2		
WI		2014	2014	2014	2014	2014	2014	2014	2014	2009			2015	2015	2015	2015	2015	2015	2015	2015	2009		
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	28.0	0.0	0.2	0.0	0.3	0.0	0.0	0.2	28.7	1.4	2009	Grass	32.7	0.0	0.4	0.0	0.0	0.0	0.0	0.2	33.3	2.1
2009	Tree	0.3	38.3	0.1	0.0	0.1	0.0	0.0	0.0	38.8	1.5	2009	Tree	0.2	27.7	0.2	0.0	0.2	0.0	0.0	0.0	28.3	2.0
2009	Bldg	0.0	0.0	6.9	0.0	0.0	0.0	0.0	0.0	6.9	0.8	2009	Bldg	0.0	0.0	11.4	0.0	0.0	0.0	0.0	0.0	11.4	1.4
2009	Road	0.1	0.0	0.0	5.1	0.1	0.0	0.0	0.0	5.3	0.7	2009	Road	0.2	0.0	0.0	7.0	0.2	0.0	0.0	0.0	7.4	1.2
2009	Other	0.0	0.0	0.0	0.1	8.6	0.0	0.0	0.0	8.7	0.9	2009	Other	0.0	0.0	0.0	0.2	13.7	0.0	0.0	0.0	13.9	1.5
2009	Water	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.1	2009	Water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.2	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.2
2009	Agri.	0.0	0.0	0.0	0.0	0.1	0.0	0.0	11.0	11.1	1.0	2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	5.6	1.0
2014	Total	28.4	38.3	7.2	5.2	9.2	0.2	0.3	11.2			2015	Total	33.1	27.7	12.0	7.2	14.1	0.0	0.2	5.8		
	SE	1.4	1.5	0.8	0.7	0.9	0.1	0.2	1.0				SE	2.1	2.0	1.4	1.2	1.6	0.0	0.2	1.0		
	Net	-0.3	-0.5	0.3	-0.1	0.5	0.0	0.0	0.1				Net	-0.2	-0.6	0.6	-0.2	0.2	0.0	0.0	0.2		
WY		2014	2014	2014	2014	2014	2014	2014	2014	2009				2014	2014	2014	2014	2014	2014	2014	2014	2009	
		Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE			Grass	Tree	Bldg	Road	Other	Water	Soil	Agri	Total	SE
2009	Grass	66.1	0.2	0.0	0.0	0.1	0.0	0.0	0.0	66.4	1.5	2009	Grass	55.3	0.6	0.0	0.0	0.6	0.0	0.0	0.0	56.6	3.9
2009	Tree	0.2	15.6	0.0	0.0	0.0	0.0	0.0	0.0	15.8	1.2	2009	Tree	0.0	11.3	0.0	0.0	0.0	0.0	0.0	0.0	11.3	2.5
2009	Bldg	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	1.6	0.4	2009	Bldg	0.0	0.0	6.9	0.0	0.0	0.0	0.0	0.0	6.9	2.0
2009	Road	0.1	0.0	0.0	2.3	0.0	0.0	0.0	0.0	2.4	0.5	2009	Road	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	7.5	2.1
2009	Other	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	2.9	0.5	2009	Other	0.0	0.0	0.0	0.0	12.6	0.0	0.0	0.0	12.6	2.6
2009	Water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2009	Water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	0.2	2009	Soil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4	10.4	1.0	2009	Agri.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	1.7
2014	Total	66.4	15.8	1.6	2.3	3.0	0.0	0.5	10.4			2014	Total	55.3	11.9	6.9	7.5	13.2	0.0	0.0	5.0		
	SE	1.5	1.2	0.4	0.5	0.5	0.0	0.2	1.0				SE	3.9	2.6	2.0	2.1	2.7	0.0	0.0	1.7		
	Net	0.0	0.0	0.0	-0.1	0.1	0.0	0.0	0.0				Net	-1.3	0.6	0.0	0.0	0.6	0.0	0.0	0.0		

SE − standard error, Net − net difference between the years (2nd year minus 1st year).
Grass − grass/herbaceous, Tree − tree/shrub, Bldg. − impervious building, Road − impervious road, Other − impervious other.
Agri. − agriculture: grass or soil areas used for agriculture that likely change status during the year.

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