

AGRICULTURE ELEMENT

DRAFT

FEBRUARY 2017



The legislature hereby declares that it is in the best interest of the state to maintain, preserve, conserve and otherwise continue in existence adequate agricultural and open-space lands and the vegetation thereon to assure continued public health and the use and enjoyment of natural resources and scenic beauty for the economic and social well-being of the state and its citizens.

– NRS 361A.090

AGRICULTURE ELEMENT

PURPOSE

The purpose of the Agriculture Element is to present an overview of the agriculture industry in Douglas County, provide a summary of current issues and opportunities, and present goals, policies, and actions to help support agriculture in Douglas County.

AGRICULTURE IN DOUGLAS COUNTY

Agriculture is a primary sector of the economy that makes valuable use of natural resources through farming, ranching, aquaculture and similar industries. All people consume food and agriculture is foundational to the entire economy for this reason. Douglas County has a long and evolving agricultural history and contains some of the finest agricultural lands in Nevada. Agriculture provides services such as floodplain storage, stormwater conveyances, wildlife habitat, and wildlife migration corridors. For many people, the most obvious benefit is the open space associated with thousands of acres of pasture and crop production.

The Agriculture industry (NAICS Sector 11) includes growing crops, raising animals, harvesting timber, and growing and harvesting fish and other animals. Agriculture establishments include, but are not limited to, farms, ranches, dairies, greenhouses, nurseries, orchards, and hatcheries. The two basic activities are agricultural production and agricultural support activities.

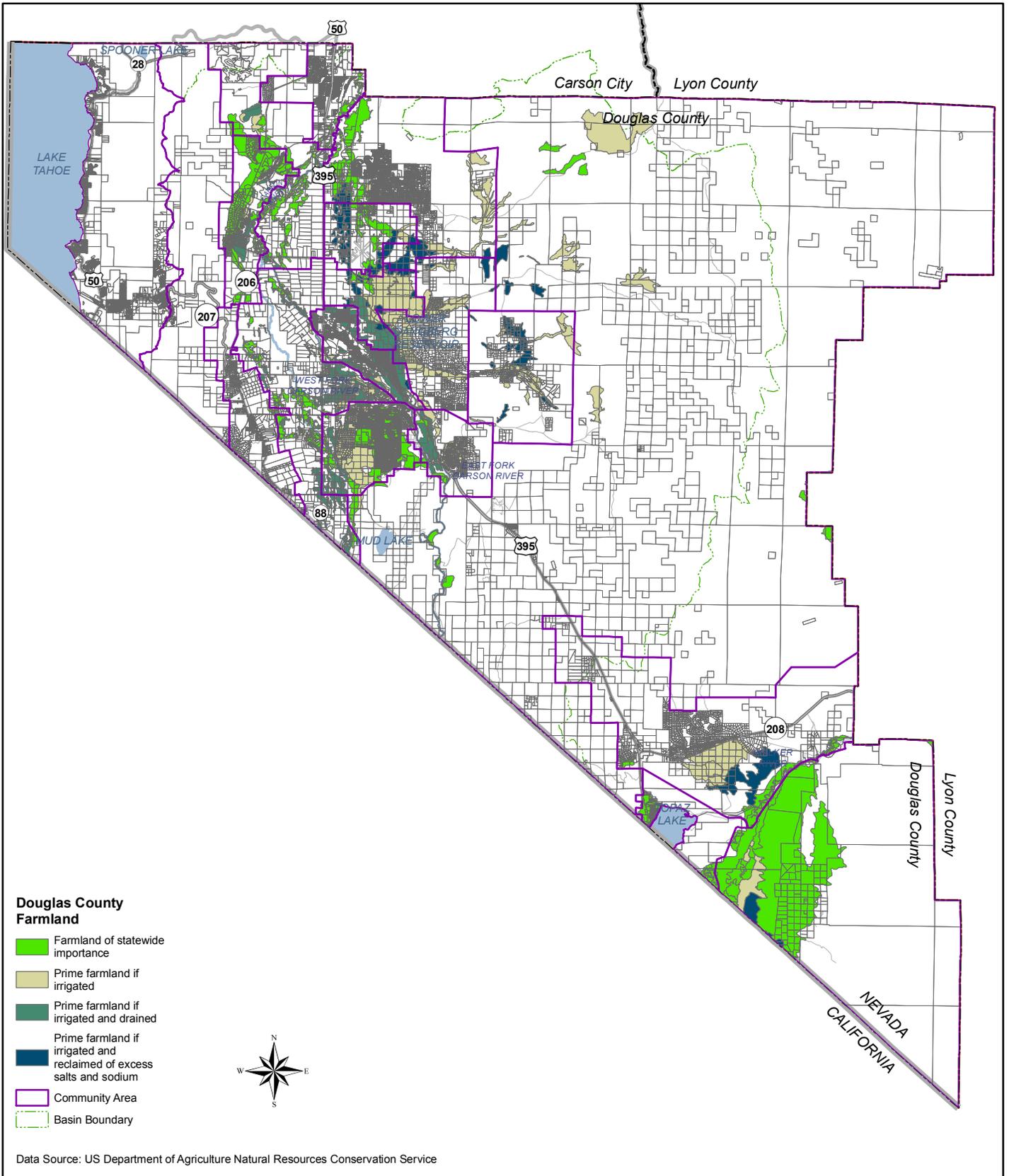
PRIME FARMLAND SOILS

Douglas County contains over 50,000 acres of different categories of prime farmland, according to the Natural Resources Conservation Service (NRCS) of the U.S. Department of Agriculture. Prime farmland includes soils that offer the best physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. Farmland categories include farmland of statewide importance and prime farmland, if irrigated.

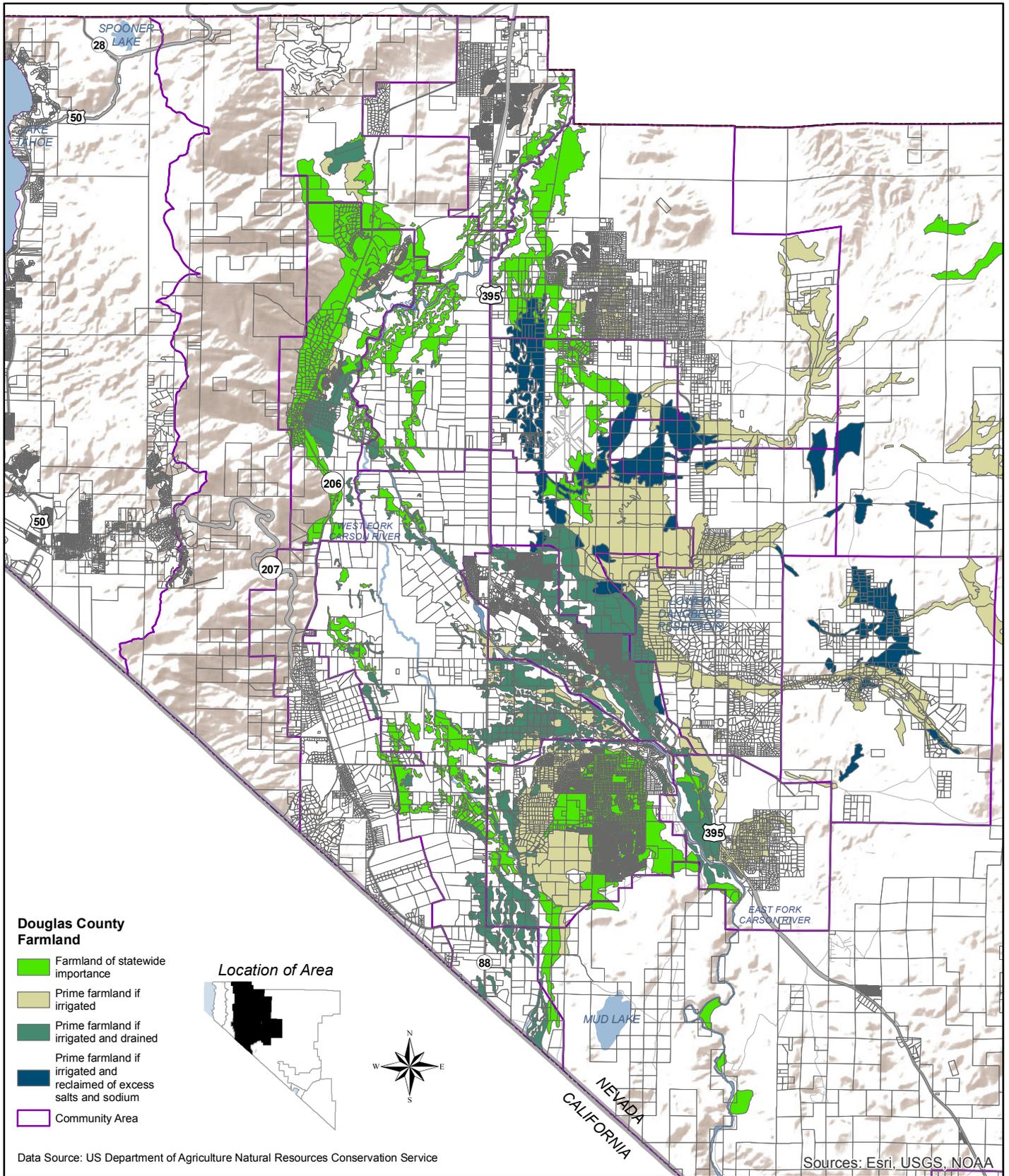
Map 1 displays the location of prime farmland in the entire County. Farmland of statewide importance and prime farmland if irrigated are located through the Carson Valley as well as south of US Highway 208 and along the Walker River in Antelope Valley.

Map 2 displays the location of prime farmland in the Carson Valley portion of Douglas County. Farmland of statewide importance is located adjacent to the East and West Forks of the Carson River as well as east of US Highway 395.

MAP 1 PRIME FARMLAND IN DOUGLAS COUNTY



**MAP 2
PRIME FARMLAND IN CARSON VALLEY**



FARMS IN DOUGLAS COUNTY

There are different estimates regarding the number of farms in Douglas County. The 2007 Census of Agriculture (U.S. Department of Agriculture) reported a total of 179 farms in Douglas County (The 2012 Census reports a total of 255 farms). Table 1 includes information on the number of farms and farm acreage for Douglas County and other counties in Northern Nevada. Churchill County has the highest number of farms at 529 although Washoe County contains the most farm land with 485,893 acres.

Table 1
Farms in Selected Northern Nevada Counties (2007)

County	Number of Farms	Land in Farms (acres)	Average Farm Size (acres)
Carson City	21	2,756	131
Churchill	529	131,448	248
Douglas	179	91,046	509
Lyon	325	260,660	802
Washoe	393	485,893	1,236

Source: U.S. Department of Agriculture, Census of Agriculture

According to the 2011 Nevada Agricultural Statistics report, there are 10,000 acres in Douglas County that are used for alfalfa hay production. Douglas County produces 3.4 percent of the alfalfa hay grown in Nevada. By comparison, Lyon County produces 17.1 percent and Churchill County produces 9.1 percent of alfalfa hay grown in the state. The largest single agricultural commodity in Nevada is cattle and calves production. The number of head in Douglas County (2011 Agricultural Statistics) was 14,500 and accounted for 3.2 percent of the state inventory. Lyon County had 38,000 head, or 8.3 percent of the total; and Churchill County had 38,000 head, or 8.3 percent of the state total.

As of January 1, 2016, farmers in Nevada are required to obtain a Producers Certificate to sell their farm products directly to the public. At present, there are only seven certified producers in Douglas County as compared to 205 certified producers statewide.

Table 2 provides historical information on farms in Douglas County since 1945. According to the Census of Agriculture, which is prepared by the U.S. Department of Agriculture every five years, there were 131 farms in 1945 covering 216,678 acres, or 48.1 percent of the land area. The number of farms in Douglas County declined between 1945 and 1964 but began to increase in the 1960s and 70s. Although there are more farms today, total farm acreage has decreased by 53.4 percent from 216,678 acres to 100,944 acres. The average size of farms also decreased from 1,654 acres in 1945 to 396 acres in 2012.

The 2012 Census of Agriculture reported total farm land of at 210,952 acres. This appears to be an anomaly since the total acreage between 1992 and 2012 has ranged between approximately 80,000 and 100,000 acres. Moreover, the total acreage which qualifies for NRS 361 agricultural use value taxation is almost 77,000 acres.

**Table 2
Census of Agriculture for Douglas County, 1945 to 2012**

Year	Total Farms	Land in Farms (acres)	Average Size of Farm (acres)	Total County Land Area (acres)	Farm Land as Percentage of Total Land Area
1945	131	216,678	1,654	450,683	48.1%
1950	139	226,902	1,632	450,683	50.3%
1959	108	235,016	2,176	450,683	52.1%
1964	98	228,233	2,329	450,683	50.6%
1969	99	160,861	1,625	450,683	35.7%
1974	107	162,037	1,514	450,683	36.0%
1978	131	107,307	819	450,683	23.8%
1982	159	112,769	709	450,683	25.0%
1987	202	114,574	567	450,683	25.4%
1992	172	79,635	463	450,683	17.7%
1997	156	90,372	579	450,683	20.1%
2002	178	210,952	1,185	450,683	46.8%
2007	179	91,046	509	450,683	20.2%
2012	255	100,944	396	450,683	22.4%

Source: U.S. Department of Agriculture, Census of Agriculture

DEVELOPMENT REGULATIONS

The Douglas County Consolidated Development Code (Title 20) contains the zoning and subdivision regulations for agricultural land uses. Section 20.01.100 spells out the County's Right to Farm policy, which says, in part, "It is the declared policy of Douglas County to conserve, protect, enhance, and encourage agricultural operations within the County." The County's Right to Farm policy is intended to promote a good neighbor policy and to protect agricultural operations from nuisance complaints from adjacent owners of non-agricultural properties, provided the agricultural operations are conducted in conformance with County regulations.

Agricultural uses are permitted in the Agriculture-19 acre minimum (A-19) Zoning District. Many land uses are allowed by right in the A-19 zoning district, such as agricultural products processing and animal keeping. Other uses, such as Agricultural Products Retail Outlet, are allowed by Special Use Permit only (requiring approval by the Planning Commission).

LOCATION OF AGRICULTURE IN DOUGLAS COUNTY

Table 3 provides information on the amount of acreage in each Community Plan that qualifies for NRS 361A. The Property owners who are agricultural producers are allowed to qualify for an agricultural use assessment based on NRS 361A. This statute, passed in 1975 by the Nevada Legislature, allows agricultural and open space real property to be considered separate classes for taxation purposes. Agricultural use assessments are lower than full cash value assessments. If properties are converted to a higher use, however, the property owner must pay the taxes deferred on the property for up to seven (7) years. To qualify for this lower property value, the land must be devoted to agricultural use for at least three consecutive years prior and must produce a minimum gross income of \$5,000 per year from agricultural activities.

The total acreage devoted to agricultural purposes in Douglas County is 76,290.57 acres, or 16.9 percent of the total parcel acreage in the County. The planning areas with the highest percentage of agriculture lands include the Central Agricultural Community Plan at 100 percent, the South Agricultural Community Plan at 92.4 percent, and the Airport Community Plan at 58.6 percent.

**Table 3
NRS 361A Agricultural Acreage, by Community Plan**

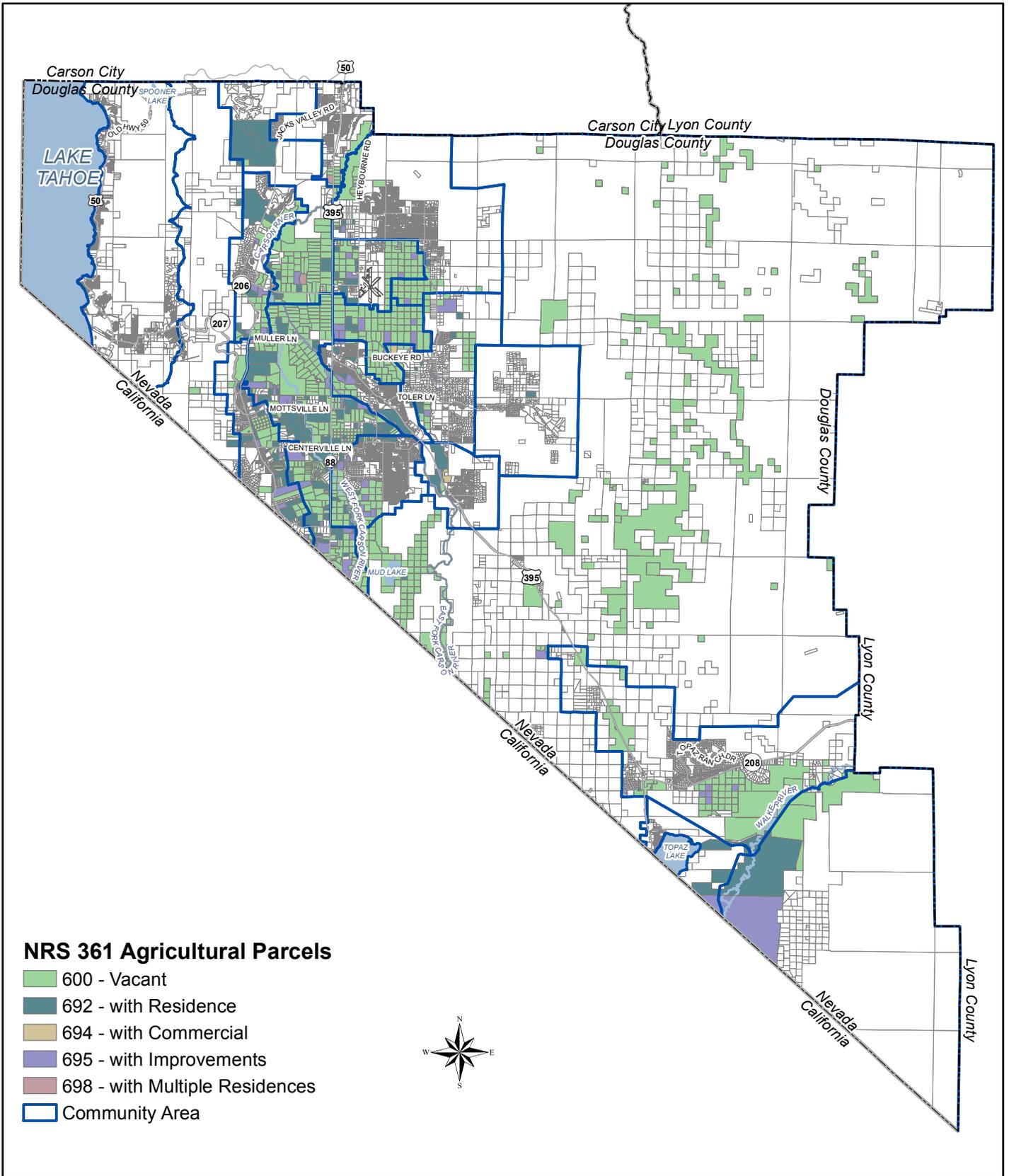
Community Plan	NRS 361A Acreage	Total Parcel Acreage in Community Plan	Percentage of NRS 361A Acreage
Airport	2,702.31	4,609.70	58.6%
Agricultural, North	5,746.47	13,575.67	42.3%
Agricultural, Central	4,622.38	4,623.82	100.0%
Agricultural, South	14,406.29	15,584.82	92.4%
Antelope Valley*	7,859.30	47,168.32	16.7%
East Valley	1,659.70	9,133.22	18.2%
Fish Springs	60.00	13,524.06	0.4%
Foothill	2,697.17	6,350.06	42.5%
Gardnerville Ranchos	2,273.02	6,148.53	37.0%
Genoa	2,672.03	5,407.01	49.4%
Indian Hills/Jacks Valley	701.14	3,853.93	18.2%
Johnson Lane	2,275.17	18,057.5	12.6%
Minden/Gardnerville	1,030.72	3,497.28	29.5%
Pinenut	19,125.12	221,685.41	8.6%
Ruhenstroth	585.82	5,218.68	11.2%
Sierra	209.19	21,482.23	1.0%
Tahoe Basin	0.00	21,520.10	0.0%
Topaz Lake	0.00	3,243.26	0.0%
Topaz Ranch Estates/Holbrook Jct.	7,664.64	25,999.42	29.5%
Total Acreage	76,290.57	450,683.02	16.9%

Source: Douglas County GIS and Douglas County Assessor, May 2016

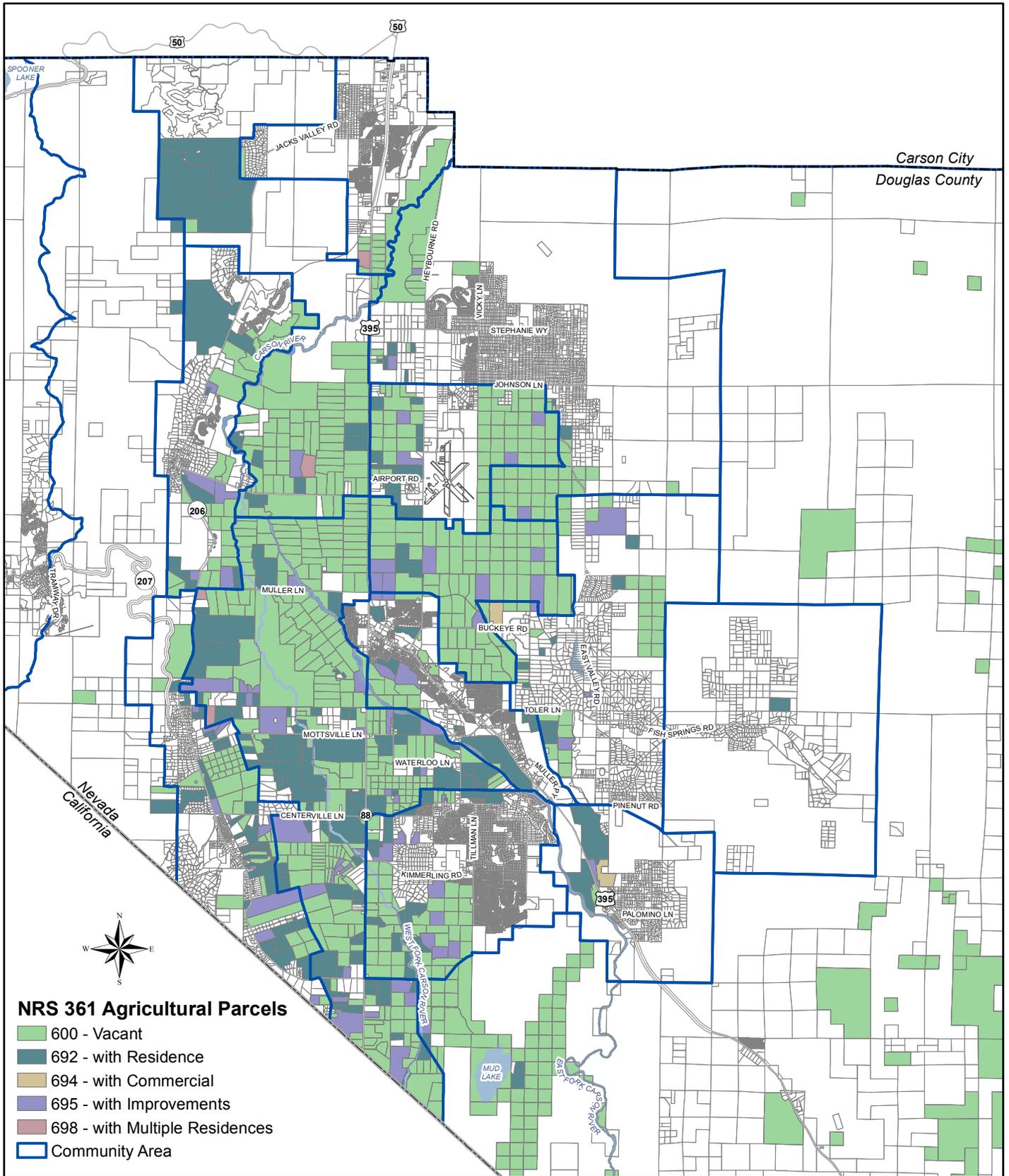
**There is no Community Plan for Antelope Valley, but it represents a distinct area of Douglas County.*

Maps 3-5 display the location of NRS 361A agriculture parcels in the entire County, Carson Valley, and Southern Douglas County. Agricultural lands in the Carson Valley are generally located between the West and East Forks of the Carson River and east of the Carson River as it leaves Genoa. Agricultural lands in Southern Douglas County are concentrated south of US Highway 208 and along the Walker River.

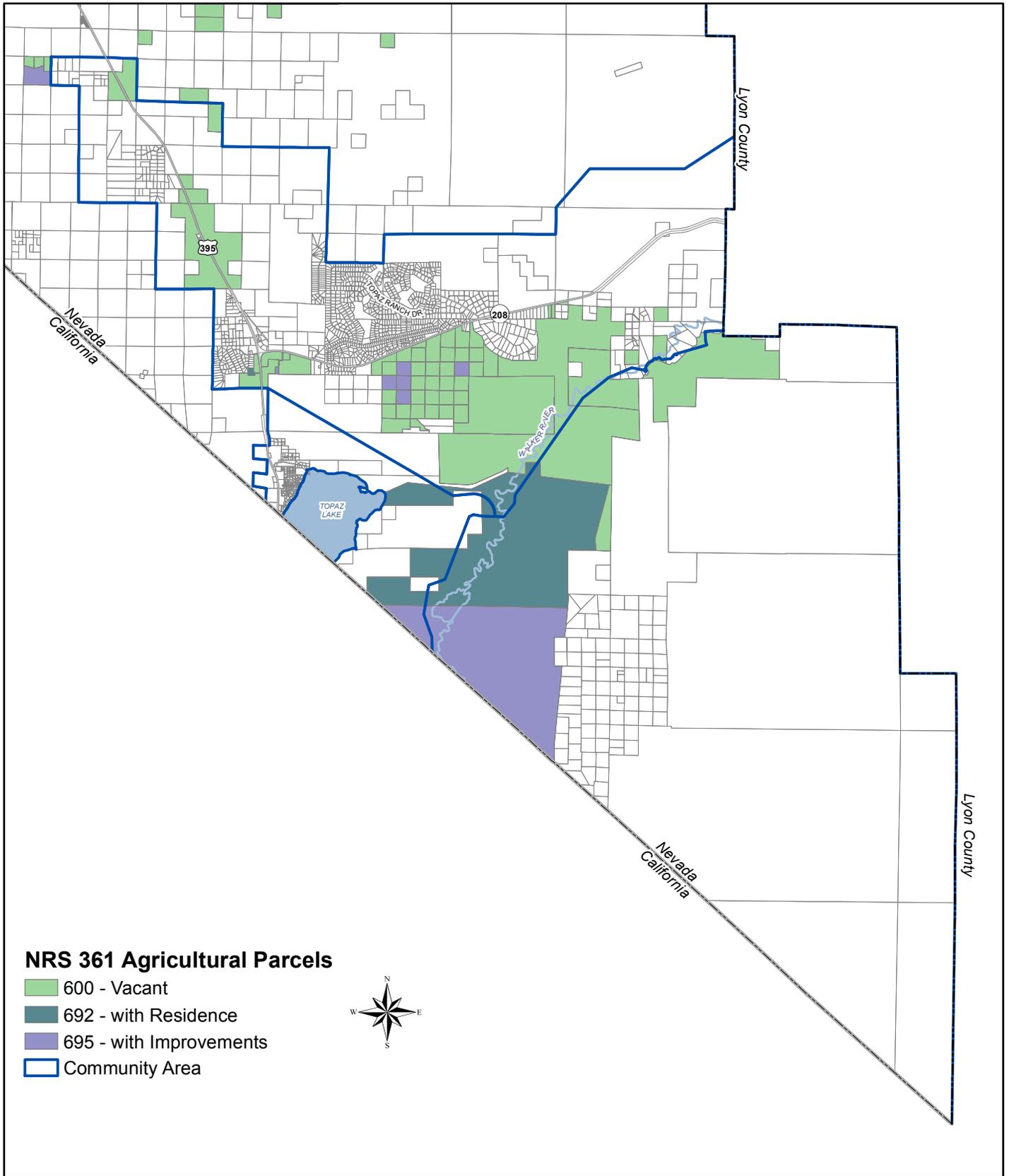
Map 3
NRS 361 Agricultural Parcels in Douglas County



Map 4
NRS 361 Agricultural Parcels in Carson Valley



Map 5
NRS 361 Agricultural Parcels in Southern Douglas County



AGRICULTURE ISSUES AND OPPORTUNITIES

2016 MASTER PLAN SURVEY – Agricultural preservation was ranked highly in the [2016 Master Plan Survey](#). Survey respondents (898 total) were asked to rank 18 different topics on a scale of 1 to 5. Natural resource conservation was ranked second, scenic quality was ranked third, and preservation of agricultural land was ranked sixth. There were several comments concerning the importance of agriculture to Douglas County. Some comments focused on the ecosystem benefits of agriculture, while other comments related to the open space benefits of agriculture. There were also comments relating to the need to allow more diverse land uses on agriculture lands, such as renewable energy, to provide additional income for farmers. In addition, there were several comments concerning livestock regulations with many people requesting changes to the County’s current zoning regulations.

All of these topics are of great importance but I would say that the preservation of agricultural land would be first and foremost. If we continue down the path of conservation easements on ag land and open space it will be a solution and a pathway for the other topics.
–Comment from 2016 Master Plan Survey Respondent

TRANSFER DEVELOPMENT RIGHTS PROGRAM-The Transfer Development Rights (TDR) program (Douglas County Development Code Section 20.500) allows property owners in “sending areas” (A-19, FR-19 zoning districts) to sell development rights to designated “receiving areas.” Development rights can’t be transferred off the property until the property owner has obtained a TDR certificate from the County. Property owners must record a deed restriction or grant a perpetual open space access easement to the County (or another entity approved by the Board of Commissioners). The TDR program is one of several tools available to protect open space and support farmers. To date, the TDR program has created almost 4,000 acres of conservation easements but no new TDRs have been approved since 2009.

The TDR program may need to be amended again to jumpstart the program. Possible strategies may include requiring more development proposals that require re-zoning to obtain TDRs. Another strategy that is used in many jurisdictions is the establishment of a TDR bank. TDR banks allow the local government to purchase TDRs and hold them for sale to developers. TDR issues and opportunities are addressed in greater detail in Chapter 5, Growth Management Element.

OPEN SPACE ACQUISITION- County residents value the open spaces of Douglas County, based on the comments submitted with the 2016 Master Plan Survey. To preserve these open spaces, additional strategies are needed to complement private market mechanisms. In 2000, Douglas County voters rejected a quarter-cent sales tax for an Open Space Plan.

There is an opportunity to prepare a new Open Space Plan for the County which will facilitate the purchase of development rights and or/conservation easements (based on specific criteria) to

preserve the open space and scenic beauty of the County. Many of these issues and opportunities are addressed in the 2007 Update to the [Douglas County Open Space and Agricultural Lands Preservation Implementation Plan](#).

REGULATORY EXEMPTIONS AND INCENTIVES – There are several exemptions and incentives in the Douglas County Development Code that support agriculture. A clustered development regulation (Douglas County Development Code Section 20.714.020) has been in place in different versions since 1968 and was adopted for the purpose of preserving agricultural lands and open space. The regulation requires at least 70% open space in a proposed development. In return, a residential development is allowed a density bonus of 2.5 units for each unit allowed by right in the zoning district restricted as open space.

The Douglas County Development Code was amended in 2008 and 2016 to allow the subdivision of parcels less than A-19 for ranch heritage and agricultural 2-acre parcels (Douglas County Development Code Section 20.714). The ranch heritage provisions allow the one-time creation of a non-conforming A-19 parcel provided the property owner creates a conservation easement of at least 100 acres of irrigated agricultural land. The agricultural 2-acre parcels provision allows up to three parcels of two to five acres to be created every 15 years for property owners with more than 100 acres of irrigated agricultural land. There is no limit on the density created by these provisions.

The Special Occasion Home ordinance is another example of agriculture supportive regulations in the Development Code. The ordinance (Douglas County Development Code Section 20.664.240) was adopted in 2013 to allow property owners with historic properties to use the properties for weddings, business meetings, or retreats. The regulation allows owners of farms and ranches to obtain additional revenue.

The Growth Management Ordinance, which requires property owners to obtain a building permit allocation for new dwellings, was amended in 2007 and 2008 to exempt housing for agricultural purposes. The amendments exempted accessory dwellings on A-19 parcels as well as dwelling units created under the Ranch Heritage or Agricultural 2-acre parcels from the allocation requirements of the Growth Management Ordinance.

Some farmers have expressed interest in creating a new agricultural zoning district with a minimum of 100 acres. The purpose would be to allow additional land uses that are currently prohibited in the A-19 zoning district. Another option would be to allow more retail activities within the A-19 Zoning District.

Given the longstanding agricultural heritage of Douglas County, there may be an opportunity to create more connections between the existing agricultural industry and new residential development. The concept of developing new subdivisions with a farming component (e.g., agrihoods) is becoming increasingly popular. There may be an opportunity to protect the County's agricultural heritage with developments which preserve existing farm structures. More information on this approach is provided in the Historic Preservation Element.

LIVESTOCK OVERLAY ZONING DISTRICT – Many local communities around the country are loosening their residential zoning regulations to allow more agricultural activities, such as allowing a limited number of small livestock. Based on the comments submitted for the 2016 Master Plan Survey, there is interest in allowing small scale agricultural activities in residential

areas of the County. One survey respondent stated that “chickens should be allowed on all property, regardless of the size of the property.”

The Douglas County Development Code includes a Livestock Overlay Zoning district (Douglas County Development Code Section 20.672), which was adopted in 1994 and amended in 1996. The overlay district establishes criteria for allowing livestock on residential parcels less than one acre. Livestock, such as horses and goats, are permitted at specified densities of one animal unit per 10,000 square feet. At the current time, the Livestock Overlay Zoning District only applies to 631 parcels in the Gardnerville Ranchos Community Plan area and four (4) parcels in the Ruhentroth Community Plan area. By comparison, Carson City allows chickens, pigs, rabbits, bees, and goats [Sections 7.02 and 7.13.190] on residential parcels less than one acre in size. These uses are allowed by right and do not require an overlay district.

The County could expand the types of animals allowed in the existing Livestock Overlay Zoning District and/or allow some agricultural uses on residential properties less than 1 acre by right.

WATER SUPPLY –Douglas County farmers rely on the Carson and Walker Rivers to provide flood and sprinkler irrigation. Farmers also rely on the effluent from wastewater providers in the Carson Valley and in the Tahoe Basin. The majority of the farmers in the Carson Valley rely on the surface water rights awarded as part of the 1980 Alpine Decree settlement. Historically, groundwater has not been the primary water source for most agricultural operations in Douglas County. The State of Nevada prohibits new wells to be drilled for agricultural operations. With drought and concerns over long term climate change the protection and conservation of water becomes more and more important to the state. During the 2013 legislative session, the Nevada Legislature allowed for emergency drilling of stock water wells for counties under a declaration of drought, or contiguous to counties under a drought declaration. The emergency drilling permit is good for one year to provide water for livestock. During 2016, 12 Nevada counties were declared as primary natural disaster areas due to drought. Douglas County was included in this declaration.

WATER QUALITY – Water quality issues include pollutants carried by stormwater runoff from agricultural properties. There is a need to reduce non-point runoff into the Carson River, which is still listed on the EPA 303 (d) list of impaired waters due to several constituent pollutants including phosphorus, nitrogen, turbidity, and e-coli. There are many successful strategies that can be employed to reduce the pollutants that enter surface waters from agricultural properties.

AGRICULTURE (AG) ELEMENT GOALS, POLICIES, AND ACTIONS

The following goals, policies, and actions for the Douglas County Agriculture Element set forth priorities to protect and support agriculture in the next five to ten years.

AGRICULTURE GOAL 1

TO PROTECT AND ENCOURAGE AGRICULTURAL ACTIVITIES AND SUPPORTIVE INDUSTRIES THROUGHOUT DOUGLAS COUNTY

- AG Policy 1.1 Douglas County shall plan for the continuation of agriculture as a distinct and significant land use in the county.
- AG Policy 1.2 Douglas County shall define agricultural uses as economic development and promote and encourage agriculture as an important industry and as a desirable land use which serves to define the desired character of the county.
- AG Policy 1.3 Douglas County shall encourage the industries that support agriculture as a land use.
- AG Policy 1.4 Douglas County shall preserve a distinction between urban and rural areas, direct new growth to areas already committed to an urban level of development and preserve rural industries (e.g., farming, livestock grazing, mining), natural resource protection, and open space recreation uses.
- AG Policy 1.5 Douglas County will protect prime farmland by discouraging development patterns that harm this important resource.
- AG Policy 1.6 Douglas County will support and encourage residential developments within urban service areas that include farming opportunities for the residents.
- AG Action 1.1 Douglas County will create new opportunities for small-scale agricultural activities and small-scale animal husbandry by amending the Livestock Overlay District and/or by creating more by right small-scale agricultural uses in the existing residential zoning districts.**

AGRICULTURE GOAL 2

TO CREATE ALTERNATIVES TO THE URBAN DEVELOPMENT OF EXISTING AGRICULTURAL LANDS IN ORDER TO PRESERVE THESE AGRICULTURAL AREAS

- AG Policy 2.1 Douglas County shall minimize conversion of commercially viable agricultural land to non-agricultural uses and ensure that recognized needs for growth are met by infill and contiguous development.
- AG Policy 2.2 Douglas County shall provide for a range of compatible uses on agricultural lands and means for agricultural property owners to obtain benefit from this land while achieving the public goal of agricultural preservation
- AG Policy 2.3 Douglas County shall regularly consult with the agricultural community for new agriculture-related commercial and industrial uses and other compatible commercial uses in agricultural zoning districts and provide the appropriate updates to the Development Code.
- AG Policy 2.4 Douglas County shall provide procedures for the acquisition, dedication, or purchase of agricultural preservation easements, by public or non-profit entities, as a means to retain land in agriculture.
- AG Policy 2.5 Douglas County shall encourage the agricultural community to retain its water rights and protect water quality. When possible the County shall evaluate a program for public acquisition of agricultural water rights as a means to retain water for agricultural uses.
- AG Policy 2.6 Douglas County shall, in cooperation with the agricultural community, evaluate other programs to retain land in agricultural use while providing benefits to the property owner. Such programs may include purchase-leaseback of water for agricultural use through its policies and programs regarding water quality and quantity.
- AG Policy 2.7 Douglas County should coordinate its programs for public acquisition and development of open space areas with its efforts to protect land for agricultural use, so that adverse impacts of open space preservation and use on agricultural operations are minimized and the benefits to the county's open space character are maximized.
- AG Action 2.1 Douglas County will examine the potential benefits of a county-wide nonprofit farmland community land trust that would hold title to agricultural lands in perpetuity and lease the land to viable agricultural businesses.**

AGRICULTURE GOAL 3

TO ALLOW ROUTINE AGRICULTURE PRACTICES AND STRUCTURES USED FOR AGRICULTURE PRODUCTION AND PROCESSING WITHOUT RESTRICTION EXCEPT FOR COMPLIANCE WITH COUNTY HEALTH LAWS AND FEDERAL AND STATE ENVIRONMENTAL LAWS AND EXCEPT WHERE SENSITIVE ENVIRONMENTAL RESOURCES WOULD NOT BE ADEQUATELY PROTECTED.

AG Policy 3.1 Douglas County shall work with the agricultural community to identify ways to maintain "routine and ongoing agricultural activities" without further permission from the County and shall modify the Development Code to maintain those activities.

AG Policy 3.2 Douglas County shall define "routine and ongoing agricultural activities" annually based on changing market conditions.

AG Action 3.1 Douglas County will prepare amendments to the Development Code to facilitate large scale agricultural activities, such as creating an Agricultural 100 acre minimum (A-100) zoning district.

AGRICULTURE GOAL 4

TO INCREASE DOUGLAS COUNTY'S CAPACITY TO ACQUIRE PERMANENT OPEN SPACE WITH THE COOPERATION OF THE AGRICULTURAL COMMUNITY.

AG Action 4.1 Douglas County will investigate creating an Open Space Land Trust to facilitate planning and implementation of an Open Space Acquisition Program.

AG Action 4.2 Douglas County will prepare recommendations on establishment of a TDR bank to encourage conservation of open space areas in the County.

AG Action 4.3 Douglas County shall create an Open Space Advisory Committee which includes property owners involved in agriculture to prepare an Open Space Acquisition Ballot Question before the next update of the Master Plan.