Go Farm, Goleta

Urban Agriculture Protection in Eastern Goleta Valley
GO FARM, GOLETA: URBAN AGRICULTURE PROTECTION IN EASTERN GOLETA VALLEY

A Professional Project

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By Eli M Krispi

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Go Farm, Goleta: Urban Agriculture Protection in Eastern Goleta Valley

Eli M Krispi

The objective of this project is to develop land use planning strategies that can be used to preserve and enhance the economic viability of agricultural operations surrounded by suburban development in Santa Barbara County’s Eastern Goleta Valley. This project focuses on two key techniques: buffers between agriculture and other land uses, and agritourism. In the case of buffers, academic literature is examined to determine how effective buffers are at various tasks (filtering runoff, mitigating dust and wind, providing habitat, etc.) and how to construct buffers to maximize their effectiveness. Land use plans and codes from several California jurisdictions are studied to see how buffers are put to use. Academic literature is then reviewed to discover the benefits and potential drawbacks of agritourism to agricultural operations and the larger area. The zoning codes from the top five agritourism counties in California are evaluated to see how effective they are at facilitating five common agritourism uses; these best practices are then compared to the current zoning in Santa Barbara County. This paper concludes by summarizing the applicability of the literature and case studies to Eastern Goleta Valley, and proposes a new zoning designation and other policies to help maintain the urban agriculture operations. This new zoning designation includes a 30-foot minimum width for buffers and a three-tier categorization of land uses capable of promoting agritourism.
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Introduction

The loss of agricultural land is a problem facing every state in the country as more than 1 million acres of farmland are taken out of active production every year (American Farmland Trust, 1997, p.3). Beginning around the start of the 20th century and accelerating since the post-World War II population boom, the United States has seen farmland developed for new shopping malls, residential subdivisions, and other suburban features, particularly as many Americans fled the inner cities. In addition to the loss of farmland as measured in raw acreage, such development also had a tendency to favor the most productive soil, depriving the country of large numbers of prime growing land. In 1977 authors Daniel Vining, Thomas Plaut, and Kenneth Bieri found that there is “a moderate but significant bias in the location of prime farmland of the U.S. toward the vicinity of its urban populations. Ceteris paribus [all other things equal], as these populations expand and decentralize, prime farmland will be more likely to be urbanized than other land” (p.154). In California this relationship between cities and prime soils was even stronger, as observed by Howard Gregor 20 years prior to Vining and his colleagues. Gregor observed that even in 1957, 80 percent of the Los Angeles metropolitan area covered prime soils (those deemed Class I and Class II), and 70 percent of Class I soils in Santa Clara County were already being used for residential purposes. Gregor concluded by noting that “urban pressures on the land…are not particular to California. But the intensity of these pressures is far greater there than in other rapidly urbanizing states” (Gregor, 1957, p.324).

Farmland is not disappearing because the residents of suburban and exurban communities find them unwelcome. Agricultural land provides myriad benefits: they add a “peaceful and rural” feel to a neighborhood that many people find appealing and they contribute locally grown agricultural products that are often considered superior to products grown elsewhere. Additionally, while farms are not open space and should not
Figure 1: Eastern Goleta Valley as it appeared in 1960 (top) and 1970 (bottom), showing rapid conversion of farmland to houses (UCSB Maps and Imagery Library, 1960 (HA-JX) and 1970 (HB-QR)).
be thought of as such, they do often serve similar functions such as providing habitat for wildlife, acting as groundwater recharge locations, and may even play a role in mitigating greenhouse gas emissions by sequestering carbon. Instead, the problem is rooted in high development pressures and economic concerns, as many farmers continue to sell their land for development because it makes more economic sense than keeping the land in production.

The story of agricultural lands being converted to suburban uses is one that is well known to Eastern Goleta Valley, which is the unincorporated area in Santa Barbara County located between the cities of Santa Barbara and Goleta, on the county’s South Coast. Map 1 provides an overview of this area with the location of existing urban agriculture. In the early 1900s this area was home to a small community (now the core of the modern city of Goleta) surrounded and supported by agriculture, primarily lemons, avocados, and walnuts. The population increase after World War II, coupled with the attractive setting and significant water supplies (courtesy of a dam completed in the late 1950s), resulted in considerable development pressure (County of Santa Barbara, 2010). Figure 1 illustrates the spread of residential subdivisions, a trend confirmed by US Census data. For the greater Santa Barbara urban area, which includes Eastern Goleta Valley, residential development peaked in the 1960s with about 17,500 new units being built. Since then, new development has trailed off, with only about 3,400 new units being constructed from 2000 until 2008 (US Census Bureau, 2008: B25034). However it is not as if the Santa Barbara area has gradually become an undesirable location; indeed just the opposite. In 2008 there were approximately 35,000 housing units in the region. Of these, about 15,700 were valued at more than $1 million, a further 10,000 above $750,000, and another 4,400 valued higher than $500,000. Only 3,900 units, about 11% of the total housing stock, were valued at less than half a million dollars (US Census Bureau, 2008: B25075). Even today, after the collapse of the housing bubble, the median sale cost of houses in Eastern Goleta Valley is more than $650,000 and the average house lists for
over $1 million (Trulia: 2011). The extremely high value of housing, coupled with the lack of new units, creates substantial pressure to develop remaining land in Eastern Goleta Valley, much of which is currently being used for agriculture. Map 2 shows the land value of urban agricultural parcels.

In the urbanized portion of Eastern Goleta Valley, only two blocks of land remain in active agricultural production: the 422-acre South Patterson tracts and the 51-acre Turnpike/Hollister parcels. A third 17-acre parcel is considered suitable for agriculture but is not in active production and a fourth parcel is used seasonally to grow pine trees (County of Santa Barbara, 2010). Despite their small size, these lands are highly productive. Crops include the historically favored lemons and avocados, as well as tangerines, cherimoyas, persimmons, and ornamental plants and flowers (County of Santa Barbara, 2006). Many farmers in the two blocks own or lease multiple parcels. Table 1 provides greater detail about the agricultural operations in this area.
<table>
<thead>
<tr>
<th>Block</th>
<th>Name</th>
<th>Crops</th>
<th>Ownership</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Marcos/</td>
<td>San Marcos Growers</td>
<td>Wholesale plants</td>
<td>Lease</td>
<td>20 acres</td>
</tr>
<tr>
<td>Hollister</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lane Family Farms</td>
<td>Organic fruits and vegetables</td>
<td>Owned/Leased</td>
<td>3.3 acres</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(owned) 12 acres</td>
</tr>
<tr>
<td></td>
<td>McClosky Nursery</td>
<td>Orchids, avocados</td>
<td>Owned</td>
<td>6.6 acres</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Patterson</td>
<td>Por La Mar Nurseries</td>
<td>Greenhouse flowers</td>
<td>Owned</td>
<td>127 acres</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Givens Family Farm</td>
<td>Organic and specialty produce</td>
<td>Owned/Leased</td>
<td>8 acres</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(owned), 172</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>acres (leased)</td>
</tr>
<tr>
<td></td>
<td>Sea Crest Nursery</td>
<td>Palms</td>
<td>Owned</td>
<td>17 acres</td>
</tr>
<tr>
<td></td>
<td>Seaview Nursery</td>
<td>Potted and greenhouse flowers</td>
<td>Owned</td>
<td>6 acres</td>
</tr>
<tr>
<td></td>
<td>West Covina Nursery</td>
<td>Potted ornamental plants</td>
<td>Owned</td>
<td>30 acres</td>
</tr>
<tr>
<td></td>
<td>Deigaard Nursery, Inc.</td>
<td>Potted and greenhouse flowers,</td>
<td>Owned</td>
<td>33 acres</td>
</tr>
<tr>
<td></td>
<td></td>
<td>palms</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Groen Rose Company</td>
<td>Greenhouse flowers</td>
<td>Owned</td>
<td>19 acres</td>
</tr>
<tr>
<td></td>
<td>Central Coast Plant Co.</td>
<td>Greenhouse plants, seasonal</td>
<td>Owned</td>
<td>6 acres</td>
</tr>
<tr>
<td></td>
<td></td>
<td>flowers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Giorgi Ranches</td>
<td>Lemons</td>
<td>Owned</td>
<td>64 acres</td>
</tr>
</tbody>
</table>

Adapted from Freeman, 2009: 12 & 16

The draft community plan for Eastern Goleta Valley, currently being circulated for public comment and revision, makes the preservation of these urban agriculture parcels a topic of special consideration. The plan states that “agriculture-based business in the Eastern Goleta Valley has the added effect of…better ensuring the community’s overall sustainability. In this sense, urban agriculture is a strong component in the local economy and conserves land for urban agriculture as part of the mix of local land uses” (County of Santa Barbara, 2010, p.84), and should be supported “as a vital element in a sustainable
mix of economic activity” (County of Santa Barbara, 2010, p.87). Santa Barbara County has clearly identified the preservation (and if possible, expansion) of small-scale urban agriculture as a key priority for Eastern Goleta Valley.

This project is an urban agriculture plan that will seek to help alleviate concerns of both the farmers and the community members of Eastern Goleta Valley, while acting to implement the goals of the Eastern Goleta Valley Community Plan as previously described. Through an analysis of academic research and existing policies in other jurisdictions, this document suggests policies on buffers and economic/zoning issues. It is hoped that the recommendations contained in this document are able to at least somewhat satisfy the community members who are strongly in support of continued agriculture in Eastern Goleta Valley, while still providing farmers with a range of land use options sufficient to bring in needed revenue.

The views of community members, farmers, advocacy groups, and other relevant stakeholders vary dramatically. Virtually all community members have spoken in favor of some degree of urban agricultural preservation. Reasons for this support included protection of the “open space” and rural quality afforded by farmland, food security, concerns that increased development would use too much water, and a desire to preserve farms as part of Eastern Goleta Valley’s heritage (a public comment log is included as Appendix A). A survey conducted in late spring of 2009 found similar results: 68% of respondents said they were in favor of keeping existing agricultural operations viable, a further 24% were neutral, and only 8% were opposed to the idea. Sixty-four percent of respondents felt strongly or somewhat strongly that the character of the community had changed as a result of too much development, while 33% felt somewhat or strongly...

“If ag land is rezoned, the Eastern Goleta Valley will change dramatically...It is not your responsibility to assist farmers to enrich themselves, especially at the expense of the wider community, our quality of life, and when it is counter to the vision for our community.”

- Community Member
otherwise. Fifty-two percent felt favorably toward agricultural operations, while 44% viewed them unfavorably (County of Santa Barbara, 2009, p.4). There are also concerns about possible environmental impacts of farms on issues such as riparian health; Map 3 shows environmentally sensitive areas in the community.

The farmers themselves also expressed a wide range of opinions, although all expressed a desire to continue farming if possible. Many feel that some level of development was necessary to remain viable, although they differed in what sort of development would be best; proposals included housing, light industrial, and visitor-serving commercial (Elledge, 2010). Some farmers believe that the cost of remaining in business and the lack of family members interested in continuing farming operations makes any efforts to encourage ongoing production futile. Such farmers advocate for permitting medium-high residential development on their land, while donating easements to the County for coastal access, or even blufftop land that can be set aside for parks (Alm, 2009).

“I have heard that there are those who want to preserve all ag lands as they are. I wonder what would be preserved under the status quo. I don’t think the status quo would accomplish what they hope it would.”

- EGV Farmer
Map 3: Environmentally Sensitive Areas

Data courtesy Santa Barbara County and ESRI
The first component of Eastern Goleta Valley’s urban agricultural plan is buffers, which are strips of undeveloped or minimally developed land intended to separate incompatible land uses. The Eastern Goleta Valley Draft Community Plan requires “Buffers separating non-agricultural operations [to] be maintained, established, and enforced” (County of Santa Barbara, 2010, p.87). When buffers are discussed in the context of agricultural preservation, they are usually intended to prevent the negative impacts of farms (noise, odors, dust, chemicals, etc.) from spreading beyond the farm’s boundaries and affecting surrounding residences and businesses. Farms with sufficient buffers may therefore be less likely to be the subject of complaints and therefore less likely to face community pressure to cease operations. Additionally complaints may result in fines and new regulations that make farming less economically viable, increasing the appeal of developing the land. However in Santa Barbara County there is very little need for this kind of protection as a result of the county’s right to farm ordinance. This section of the county code mentions that “No agricultural activity… maintained for commercial purposes, and in a manner consistent with proper and accepted customs and standards…shall be or become a nuisance…after the same has been in operation for more than three years if it was not a nuisance at the time it began”, specifically mentioning protection from “the sounds, odors, dust and chemicals that may accompany agricultural operations” (County of Santa Barbara, n.d., 3.V). As long as farms operate in a way that is considered “normal” they cannot be considered a public or private nuisance; surrounding residences and businesses are understood to be aware and accepting of a farm’s potentially negative impacts.

Because of this protection, the buffers proposed for the farms in Eastern Goleta Valley are intended not to protect surrounding land uses from agricultural impacts, but largely the other way around: preventing the impacts of surrounding land uses from...
negatively affecting the farms. Such impacts can include runoff from impervious surfaces (such as parking lots) that can erode and contaminate topsoil, and damage caused by vandals and trespassers. Furthermore, certain development patterns can focus wind onto agricultural areas, increasing erosion. Buffers can also serve functions that are not necessarily to protect one land use or another, but rather are beneficial to the community at large, such as providing habitat for local wildlife and by sequestering carbon in plants and the soil as a means of mitigating greenhouse gas emissions. There are six goals for buffers around agricultural lands in Eastern Goleta Valley:

- Slow down and absorb runoff from surrounding land uses to prevent soil loss.
- Filter out sediments and contaminants in runoff from surrounding land uses.
- Act as a windbreak to prevent soil loss and minimize dust in the air.
- Discourage vandals and trespassers.
- Provide wildlife habitat.
- Capture and sequester carbon (Personal communication – E. Leachman, Dec. 3, 2010).

The following pages will examine the scientific literature behind five of these six goals, to see how effective buffers are at these roles and how they should be constructed (in terms of width, composition, etc. to maximize their beneficial role. There is no academic evidence to support buffers as an effective means of discouraging vandals, but it would reason that a row of dense vegetation or trees would be less inviting than an unvegetated strip of land. As mentioned earlier, farming in the urban areas of Eastern Goleta Valley is already very limited, and the farms themselves operate on fairly small economic margins. As the buffers are intended to protect farms from the negative impacts of surrounding land uses, it is unreasonable to ask farmers to devote a significant portion
of their land to providing buffers. Therefore, the buffer strategies being examined for Eastern Goleta Valley will be constructed on surrounding land uses, not agricultural land.

Runoff, either from rainfall or from human sources (car-washing, irrigation, etc.) can contain a variety of particles and chemicals, including sediments, nutrients (such as fertilizers), and even toxic compounds such as oil and gas residue. These particles can negatively impact crop plants if they are washed onto farmland, as well as having environmental and human health consequences. Numerous studies have demonstrated the effectiveness of buffers in removing sediments and contaminants from runoff, including a 2000 study by Lee et al. The authors set up three different conditions on an Iowa farm: a 72.5-foot-wide area with no buffer, a 23-foot-wide buffer composed of switchgrass (shown in Figure 2), and a more complex 53-foot-wide buffer made of a combination of switchgrass and woody plants; these conditions were then subjected to an artificial rainfall. Each scenario was measured for absorption levels of sediments, nitrogen, and phosphorus. Under an intense rainfall at a rate of about 2.7 inches per hour the simple switchgrass buffer captured 82% of sand (particles larger than 50 micrometers), 71% of silt (2 to 50 micrometers), and 15% of clay (smaller than 2 micrometers) for 70% of sediments in total; the combination buffer captured 98% of sand, 93% of silt, and 52% of clay, a total of 92% of all sediment. During the same rainfall rate, the switchgrass buffer removed 44 – 72% of nitrogen and phosphorus with the complex buffer removing 80% to 93%. Under a more moderate rainfall of about 1 inch per hour, the switchgrass buffer removed between 28% and 50% of all nutrients, the complex buffer removed 35% to 81%. The authors also found a difference in flood control benefits between the different scenarios. With the moderate rate, the plot
of land with no buffer absorbed 79% of water, while the simple buffer soaked up 85% and the combination buffer absorbed 96%. A similar pattern was observed with the higher rainfall rate; the land with no buffer absorbed 59%, the switchgrass buffer absorbed 69%, and the combination buffer soaked up 79%. (Lee et al, 2000). Notably, the soil used in this study, a fine loam, is closely related to the various loams found on farms in Eastern Goleta Valley (USDA, n.d.).

Other scientists have arrived at similar conclusions; one such example being a 1996 study by Daniels and Gilliam using two different soils (one of which is similar to Eastern Goleta Valley loams) in North Carolina. The authors created four different buffer types: two made of Festuca arundinacea (a tall European grass, commonly referred to as fescue) with a respective slope of 2% and 5%, one combining fescue with ground-covering weeds and vines, and a fourth mixing fescue with weeds, shrubs, and trees. These buffers were set up in fields for two years and were monitored after each rainfall even to see how effective they were at trapping sediments and contaminants such as potassium and various forms of nitrogen (including ammonia and ammonium). The authors found that the two fescue buffers were about as effective as the more complex buffer types but required less space; for example the 2% slope and 5% slope fescue buffers trapped 84% and 80% of sediments, respectively, after a distance of about 20 feet. The fescue/groundcover buffer required nearly 43 feet to trap 83% of sediments, and the fescue/shrub/tree buffer needed close to 66 feet to capture 79% of sediments. On removing phosphorus and nitrogen, the patterns were roughly the same: all types of buffers were about as effective, but the two fescue buffers accomplished the same results as the other buffers with less space. The authors do note that “nitrate changed very little in runoff where the samplers were >7 m [greater than 22.97 feet] from the field edge” (Daniels & Gilliam, 1996, p.250), suggesting that any increased in buffer length beyond about 23 feet will not improve nitrogen capture rates (Daniels & Gilliam, 1996).
A third study, conducted in 1996 by Robinson, Ghaffarzadeh, and Cruse, used similar methods but specifically focuses on the length of buffers to see where most of the sediment trapping occurs. The authors built two vegetated filter strips, one on a slope of 7% and the other on a slope of 12%. The filter strips consisted primarily of *Bromus intermis* (bromegrass, a native European bunchgrass), with smaller amounts of alfalfa and orchard grass. As with other experiments, the filter strips were examined after rain events to see how much runoff and sediment passed through. What is particularly notable about this study is the conclusion that “the initial 3.0 m [9.84 feet] of the VFS removed more than 70% of the sediment on the 7% grade and 80% on the 12% grade” (Robinson, Ghaffarzadeh, & Cruse, 1996, p.299). Even though the buffer was 60.04 feet wide, the majority of sediment capture and runoff infiltration occurred in the initial 10 feet; furthermore there was virtually no capture or infiltration beyond about 30 feet. Additionally, the authors noted that “there was no evidence of decreased effectiveness of the VFS with time” (Robinson, Ghaffarzadeh, & Cruse, 1996, p. 230), pointing out that the final storms were filtered at about the same efficiency as the first few. The study also showed that greater sediment transport occurred on steeper slopes and during more intense rain events, results also obtained from the previously discussed papers (Robinson, Ghaffarzadeh, & Cruse, 1996).

These are not isolated papers demonstrating how effective buffers can be at removing sediments; indeed several studies have reviewed numerous other studies and come to similar conclusions. Yuan, Binger, and Locke conducted a review of numerous peer-reviewed studies, comparing the impacts of different types of buffers (simple grass strips or hedges, dense grass filter strips, trees and woody shrubs, and a combination of these), the widths of various buffers, and the slope of the land on capturing sediment from runoff. Given the number of studies examined, the authors concluded very broadly that “the trapping efficiency in buffers depends primarily on buffer width, vegetation
type, density and spacing, sediment particle size, slope gradient and length, and flow convergence…soil properties, initial soil water content, and rainfall characteristics” (Yuan, Binger, & Locke, 2009, p.327). However, there are a few overriding results that emerge. Grasses are equally effective as woody plants at removing sediments (although the study does not evaluate the effectiveness of grasses and woody plants in the same buffer). Switchgrass is considered to be a grass of middling effectiveness (more effective than fescue and cool-season grasses, but not as effective as other species). Buffer width is important, as the authors conclude simply “wider buffers tend to trap more sediment” (Yuan, Bingner, & Locke, 2009, p.328). However, the rate of increase in effectiveness decreases the wider the buffer gets (i.e. increasing a buffer from 10 to 15 feet is more effective than increasing it from 40 to 45 feet); the authors determined that the relationship between these factors is governed by the formula $y = 0.0771 \ln(x) + 0.6833$, where $y$ is the percent of trapped sediments and $x$ is the buffer width in meters, as illustrated in Figure 3. While slope does play a role in influencing effectiveness, the authors concluded that the role is fairly minor; moreover the impacts of slope were inconsistent across the analyzed studies (Yuan, Bingner, & Locke, 2009).

![Figure 3](https://example.com/figure3.png)

Figure 3: The relationship between buffer width (horizontal) and proportion of sediment capture (vertical). From Yuan, Bingner, & Locke, 2009, p.308
Another comparative analysis was conducted by Liu, Zhang, and Zhang at UC Davis in 2008, using more than 80 individual studies that examined the sediment removal properties of various buffer types (mostly using herbaceous vegetative material in a type of buffer known as a vegetative filter strip). As with Yuan and his colleagues, the authors found a broad range of influential factors. Vegetative filter strips are, on average, as effective as other methods, although the range of effectiveness for these types of buffers is very large given the many different ways they can be constructed. On the important factor of buffer width, the authors agreed that sediment trapping effectiveness increases with width. Notably, “it was also shown that sediment trapping efficacy would not improve significantly when buffer width was increased beyond 10 m” (Liu, Zhang, & Zhang, 2008, p.1673), suggesting the fairly minor improvements in performance were not particularly important when the loss of land and cost of installing such wide buffers were considered. Liu, Zhang, and Zhang found the formula describing the relationship between width and efficiency to be \( y = 13.428 \ln(x) + 56.889 \) as shown in Figure 4. Although the numbers in the formula are fairly different from those determined by Yuan and his

![Figure 4: The relationship between buffer width (horizontal) and percent of sediment capture (vertical). From Liu, Zhang, & Zhang, 2008, p.1671.](image)
colleagues (in part because efficiency is measured as a percent in this study as opposed to
a proportion), it is important to observe the similar shape. Both formulae are based on the
graph of the natural log (the ln(x) component of the formulae), which means that the rate
of change in the vertical axis decreases as the values of the horizontal axis increase.

On the subject of slope, the authors of this paper differ from Yuan and his
colleagues and find that slope is a fairly significant factor. They found that an increasing
slope actually improves sediment capture efficiency, positing that “sediment trapping
efficacy increased with increasing buffer slope because a proper slope angle provides
a runoff path to allow the vegetation to trap sediment” (Liu, Zhang, & Zhang, 2008,
p.1672). However, this only works up to a point; eventually the increasing slope
causes runoff to flow too quickly through the buffer and allowing increasing amounts
of sediment to pass through. The authors determined that the formula explaining this
relationship is \( y = -0.3511(x^2) + 6.4688(x) + 62.927 \) where \( x \) is the buffer slope in
percentages and \( y \) (as before) is the percent of trapped sediments. This function takes
the shape of a parabola (a hill-shaped curve); the top of the curve, indicating the slope of
maximum sediment trapping efficiency, is 9.2% (Liu, Zhang, & Zhang, 2008).

Since these buffers are intended to protect agricultural lands from surrounding
land uses, the runoff from parking lots and roadways must be taken into account,
especially given the highly urbanized land that surrounds the farms. Runoff from
these sorts of impervious surfaces can contain toxins known as polycyclic aromatic
hydrocarbons or PAHs, which result from incomplete combustion of organic compounds
such as fossil fuels, and are known or suspected human carcinogens. This runoff can also
contain various metals (especially aluminum and iron), as well as previously discussed
sediments and nutrients. A 2001 study by Rushton examined different strategies to
remove these contaminants from parking lot runoff. In the parking lot of the Tampa,
FL Florida Aquarium, Rushton established four test sites: asphalt paving (the standard
material used in parking lots and roadways) without any bioswale, asphalt paving with
bioswales, cement paving with bioswales, and porous paving with bioswales. The swales “are planted with a shaggy native pasture grass” (Rushton, 2001, p.172), although the author does not mention the species. Rushton then allowed these test sites to sit for two years, testing them after rain events to determine how effective they were. The results are illustrated in Table 2 below. While different units are used for different contaminants, the more important values are the comparisons for each contaminant across all four test sites. In all cases, a lower value is better.

<table>
<thead>
<tr>
<th>Table 2: Contamination and Volume of Runoff in Rushton Paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contaminant</td>
</tr>
<tr>
<td>Runoff (m³/ha)</td>
</tr>
<tr>
<td>Total nitrogen (kg/ha/yr)</td>
</tr>
<tr>
<td>Total phosphorus (kg/ha/yr)</td>
</tr>
<tr>
<td>Sediments (kg/ha/yr)</td>
</tr>
<tr>
<td>Aluminum (μg/kg)¹</td>
</tr>
<tr>
<td>Iron (μg/kg)¹</td>
</tr>
<tr>
<td>Benzo(b)fluoranthene (μg/kg)¹</td>
</tr>
<tr>
<td>Benzo(k)fluoranthene (μg/kg)¹</td>
</tr>
<tr>
<td>Crysene (μg/kg)¹</td>
</tr>
<tr>
<td>Fluoranthene (μg/kg)¹</td>
</tr>
<tr>
<td>Pyrene (μg/kg)¹</td>
</tr>
</tbody>
</table>

Adapted from Tables 3, 4, & 5, Rushton, 2001, p.175-176

Rushton’s results show that vegetated swale buffers similar to the types shown in Figure 5 lead to a significant reduction in runoff volume, and in most cases also trap contaminants and sediments. Porous paving in combination with a bioswale was the most effective buffer method, resulting in at least a 75% improvement over the

¹ Contaminant loads measured in micrograms (μg) per kilogram of sediment
unbuffered asphalt; asphalt with a bioswale was the least effective (although still a significant improvement over asphalt without a buffer). Rushton also notes that “Most metals are contained in the upper sediments and should present no problem as far as contaminating the water table (lead may be an exception)” (Rushton, 2001, p.179), and states that contaminated sediments can simply be removed as necessary to be properly disposed of (Rushton, 2001).

The academic studies presented above demonstrate the ability of buffers to slow down or capture runoff, as well as particles such as nutrients, sediments, and potentially dangerous compounds, that can be carried along in the water; buffers are so far capable of accomplishing two of Eastern Goleta Valley’s five goals. Various studies have also shown their effectiveness at a third: slowing down wind. Noting that “although the benefits of wind barriers to agriculture are large, no systematic design procedure has been established for vegetative barriers” (Schwartz et al, 1995, p.1-2), a 1995 study by Schwartz and a number of colleagues looked at the effectiveness of buffers in both wind tunnel and field studies in Texas. The authors chose to look at buffers made from two common plants: *Sorghum bicolor* (sorghum, a drought-tolerant edible grain), and *Cajanus cajan* (pigeon pea, another drought-tolerant edible crop). After extensive mathematical analysis, the authors determined that decreasing porosity correlates almost perfectly with a reduction in wind speed about equal for both plants. However a reduction in porosity below 0.2...
(with 0 being perfectly solid and 1 being entirely open) failed to improve the barrier’s wind-blocking ability. Moreover, such a dense barrier created significant turbulence immediately behind the buffer, causing additional erosion (Schwartz et al., 1995).

A 1963 study by George, Broberg, and Worthington focused on the ability of different types of buffers to specifically reduce wind speed. The authors constructed six kinds of buffers for field tests in North Dakota: three made of a single type of vegetation, one from a pattern of multiple vegetation types, and two made from planks of varying densities (similar to a picket fence). Wind measurements were taken before the buffer, and at varying distances behind the buffer, to determine how effective each buffer was at blocking wind and how deep the sheltering effect extended. Table 3 summarizes the results from the different types of vegetation.

<table>
<thead>
<tr>
<th>Vegetation Type</th>
<th>Height</th>
<th>Density</th>
<th>Wind Reduction By Distance²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.5 H</td>
</tr>
<tr>
<td>Siberian pea tree</td>
<td>14 ft</td>
<td>58%</td>
<td>-</td>
</tr>
<tr>
<td>Green ash, Siberian pea tree, &amp; boxelder</td>
<td>6 – 22 ft</td>
<td>54%</td>
<td>66%</td>
</tr>
<tr>
<td>Green ash</td>
<td>24 ft</td>
<td>43%</td>
<td>68%</td>
</tr>
<tr>
<td>Cottonwood</td>
<td>70 ft</td>
<td>10 – 37%</td>
<td>81%</td>
</tr>
</tbody>
</table>

Adapted from Table 1, George, Broberg, & Worthington, 1963, p.345

The Siberian pea tree (*Caragana arborescens*), with the highest density, was the highest performing (relative to height) at all distances except for 20 H despite being the most consistently short of all the vegetative buffers. While the cottonwood has the greatest shelter effect as a result of its tall size, its low density makes the overall shelter effect fairly weak throughout the entire area. With all buffer types, effectiveness is higher closest to the buffer and decreases as distance grows. As a point of comparison, Table 4

2 Distance is measured as a function of buffer height. For the 14-foot Siberian pea tree, 10 H is equal to 10 times the height (14 feet, or 140 feet).
shows the results of the two different types of plank buffers, both of which stand 8 feet tall.

<table>
<thead>
<tr>
<th>Plank Buffer</th>
<th>Top Density</th>
<th>Bottom Density</th>
<th>Windspeed Reduction by Distance (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>43%</td>
<td>21.5%</td>
<td>82% 84% 79% 74% 65% 67% 63%</td>
</tr>
<tr>
<td>B</td>
<td>43%</td>
<td>14.5%</td>
<td>96% 91% 83% 76% 65% 72% 69%</td>
</tr>
</tbody>
</table>

Adapted from Table 2, George, Broberg, & Worthington, 1963, p.347

At all distances, the denser Buffer A is equally or more effective than Buffer B at reducing wind speed. Unlike the vegetative buffers, the plank buffers appear to become more effective as distance from them increases; optimal distance for Buffer A was 60 feet away and 40 feet for Buffer B. However, both plank buffers were less effective than the Siberian pea tree. At 70 feet (5 H), the pea tree reduced wind speed to 42% of its original velocity. By comparison, Buffers A and B only reduced wind velocity to 63% and 69%, respectively, of the original. The authors also examined the effectiveness of a much more complex wind buffer that consisted of 11 rows of different trees and hedges, which has been widely applied across the Great Plains region in the United States and Canada. While effective, the amount of land required for this buffer makes it impractical for application in Eastern Goleta Valley (George, Broberg, & Worthington, 1963).

By blocking wind, well-designed buffers can prevent valuable topsoil from agricultural land from being blown away. They can also serve to keep dust and particulates from surrounding land uses from contaminating the farm (as well as keeping dust out of surrounding parcels). A 2008 study by Adrizal and a number of colleagues examined the ability of plant buffers to trap airborne particles produced by a Pennsylvania henhouse; although there are no commercial animal operations in Eastern Goleta Valley, various land uses produce similar emissions. The authors looked at airborne ammonia, which is usually applied to farms as a fertilizer but can also be emitted...
by other uses. Dust particles were also examined: PM\textsubscript{10} (fairly coarse matter smaller than 10 microns in diameter), PM\textsubscript{2.5} (finer particles less than 2.5 microns across), and PM\textsubscript{>10} (coarser particles larger than 10 microns in diameter). For the wind buffer, the authors planted 5 rows of ten trees, with each row about 5 ft apart and the first row about 11.5 feet from the henhouse. The trees themselves consisted of two evergreens (Canaan fir and juniper) and three deciduous species (hackberry, lilac, and purple willow as shown in Figure 6); at the time of evaluation the trees ranged between 5.25 to 11.65 feet tall. After running the experiment for three days, the authors concluded that the trees were indeed able to trap ammonia particles and that the exposure was actually beneficial. The purple willow and lilac were the most and second-most effective species (respectively) at trapping ammonia at all distances, with juniper being the least effective. For dust, juniper was the most effective at PM\textsubscript{10} and PM\textsubscript{>10} particles, two to 32 times as effective as the purple willow tree depending on distance. However, the willow was on average six times more efficient at trapping the smaller PM\textsubscript{2.5} particles. For the ammonia and all kinds of dust particles, capture efficiency was higher the closer the trees were the particle source (Adrizal \textit{et al}, 2008).

In addition to blocking wind and dust, such buffers can also help to capture liquid droplets. Although farms are often thought of as being a source of these particles, they
can also be affected by particles sprayed on surrounding land uses for purposes such as cleaning, landscaping, or industrial processes. A 2009 study by Mercer attempts to create a mathematical model to determine how porous the optimal barrier should be in order to block the greatest amount of liquid droplets; a buffer that is too solid will force the wind over the barrier and carry the particles with it, while a buffer that is too open will simply allow too much wind through. Mercer’s model is tailored to particles that are between 10 and 100 μm in diameter, reasoning that smaller particles are unlikely to be captured in any circumstances and larger particles are heavy enough to fall out of the windstream due to their own weight. Mercer evaluated porosity between 0.025 (almost solid) and 0.95 (extremely sparse), with buffers 2, 4, 6, 8, and 10 meters tall. Wind speeds were modeled at 1, 3, 5, and 10 m/s, although buffer width remained constant at 1 m. The author also modeled different diameters of the liquid particles (20, 50, and 100 μm), and the size of the leaves in the buffers: 1 mm (comparable to pine), 10 mm (a common intermediate size), and 50 mm (similar to poplar and other deciduous trees). Mercer chose to present only the results of a 6-meter-tall buffer with a wind speed of 5 m/s (11 mph), finding that height had virtually no impact on capture efficiency and that a speed of 5 m/s was most useful for practical application. For the key question of porosity, the optimal number is about 0.25, which would make the buffer fairly (although not extremely) dense. Although all three leaf types were most effective at capturing 20 μm droplets and worst at 100 μm ones, the best leaf type was by far the small 1 mm pine. At 0.25 porosity, the pine captured around 50% of 20 and 50 μm droplets, and around 43% of 100 μm droplets. The 10 mm leaves had a wide range of effectiveness, extending from around 48% for the smallest droplets to about 10% for the largest ones. The 50 mm leaves were least effective; even with the smallest droplets they only managed to capture under 40% (Mercer, 2009). A number of other studies have also confirmed that the optimal porosity for capturing liquid particles is around 0.25 (Lazzaro, Otto, & Zanin, 2008) (Brown, Carter, & Stephanson, 2004).
Just as buffers can reduce the flow of water and capture sediments and various contaminants, slow wind speed and trap various airborne particles, buffers can also provide benefits to farmers and users of the surrounding land by providing habitat to various plant and animal species. These species may benefit the farmer by controlling pests in the fields, by acting as a home for various pollinators, or any other number of natural services. The community at large benefits from the increased biodiversity, which is consistent with Eastern Goleta Valley’s Draft Community Plan; it reads “the objective for Eastern Goleta Valley’s ecology is to preserve the existing resources and enhance these resources whenever possible through development decisions for the benefit of the entire community” (County of Santa Barbara, 2010, p.164).

Buffers can provide habitat for beneficial species, as shown in Figure 7. A 2006 study by Davros and a number of colleagues looks at the role played by different sorts of buffers in providing habitats to butterflies, which can serve a useful role to farms by pollinating plants and controlling unwelcome types of insects. The authors looked at filter strip buffers in 5 counties in southwest Montana, with varying ratios of herbaceous and woody plants. Ultimately 38 sites were chosen; at each site the authors counted how many of 27 different species of butterfly were present. Some of the species in the survey are found in Eastern Goleta Valley, including the Monarch butterfly (*Danaus plexippus*), which is a species of particular significance to the community. The authors found that the buffer strips were significantly more likely to serve as butterfly habitat than row crops; moreover “habitat-sensitive butterflies, all richness measures, and…diversity increased with filter strip width” (Davros *et al*, 2006, p.939). Although increasing the width of the buffers is the single greatest action necessary to increase habitat for butterflies, the authors also found a number of other variables with positive or negative ramifications for
various species, including the ratio of woody to herbaceous plants and the density of the buffer’s edges. For example, the number of monarch butterflies increased with a greater percentage of woody plants, although the Least Skipper (*Ancyloxypha numitor*, a species that lives only in the eastern United States) was more abundant in buffers with a greater amount of herbaceous plants (Davros *et al*, 2006). The authors conclude that agricultural buffers should “be as wide as possible, with diverse vegetative composition and structure to enhance wildlife benefits” (Davros *et al*, 2006, p.942)

Another 2006 study looked at the role buffers play on another sort of pollinator: bees. Authors Greenleaf and Kremen examined the relationship between wild bees and domestic honey bees on pollination efficiency, as well as the relationships between wild bees and habitat. Noting the worldwide decline in honeybee populations and the fairly low pollination efficiency of honeybees to begin with, the authors studied 16 sunflower farms in California’s Yolo and Solano Counties. Greenleaf and Kremen looked at 20 to 25 sunflower heads per field, and through constant observation noted whether they were visited only by domesticated honey bees or a combination of domestic and wild bees. After observation, heads were bagged to prevent any further pollination or damage by other species. Once the heads matured, the authors counted the number of fertile seeds in each head. The authors found that a domestic bee was three times more likely to move from a male to a female sunflower after interacting with a wild bee than with another domestic bee. Additionally, each head produced an average of three fertile seeds per bee visit in instances where wild bees were rare. When wild bees...
increased in both abundance (the number of wild bees) and diversity (the number of different wild bee species), pollination efficiency increased dramatically, with up to 15 fertile seeds being produced per visit. Having shown that interactions between wild and domestic bees “effectively [doubled] honeybee pollination services on the average field” (Greenleaf & Kremen, 2006, p.13890), the authors next looked at the role natural habitat played in increasing the abundance and diversity of wild bees. Taking 3 km (1.86 miles) as the maximum distance bees will fly for nectar, the authors looked at the proportion of natural habitat around the test flowers. They found a significant relationship between pollination rates (both those directly pollinated by wild bees and those pollinated by wild bees indirectly through interactions with domestic bees) and the proportion of nearby natural habitat. The authors also note that increased pollination efficiency resulting from interactions with wild bees can also occur in a number of other crops, including almonds, apples, melons, kiwis, and cherries (Greenleaf & Kremen, 2006).

In addition to providing habitat for beneficial butterflies and bees, buffers can also play a valuable role for species, including birds and small mammals that can play an important role in pest control. A 2010 study by Berges and several colleagues examined the diversity of birds in buffers, in comparison to row crops and pastures. The authors looked at three riparian buffers along creeks in north-central Iowa; these buffers consisted of a woody section with a number of trees and shrubs, and a grassy zone dominated by native herbaceous plants. These buffers were a 14+ year-old habitat about 328 feet wide and two 305-foot-wide buffers planted nine and two years prior to the study; it should be noted that the width of the riparian buffers includes the creek channel as well as the vegetation community on both sides. The pasture ranged from (64 to 656 feet wide and the row crops from 82 to 328+ feet; the pasture was planted with short bluegrass and the row crops were unspecified. In each of these habitats, the authors conducted 10-minute bird counts in the mornings of late spring and early summer, excluding days that were rainy or windy. In both abundance and diversity, the buffers ranked highest, followed
by the pasture, with the row crops last. While the two-year-old buffer had the greatest abundance and the 14+-year-old buffer had the highest diversity, the authors determined that the differences were not statistically significant. The nature of the birds found in each land use was varied based on the plants. The established 14+-year-old buffer, with a high number of trees and woody shrubs, attracted forest-dwelling species, while grassland species were found primarily in the pasture and less-established 2-year-old buffer. While it may be impossible to devote 300+ feet (including the creek) to buffer purposes in Eastern Goleta Valley, the authors note that width is not the only factor. Also of critical importance is the variety of plant types. “The crop and pasture sites had less suitable habitat for many bird species, presumably due to a lack of habitat structure in the form of trees, shrubs, or tall grass” (Berges et al, 2010, p.107). The authors suggest that a diverse plant community can provide ample habitat for numerous species, even in cases of fairly narrow buffers, such as those 10 meters wide or less (Berges et al, 2010).

As with the other roles of buffers, further studies have arrived at similar conclusions and thus make a stronger case. A 2001 study by Jobin, Choinière, and Bélanger looked at birds in three types of agricultural buffers in Québec, with a number of goals including, “to assess [buffers’] value for conserving avian diversity in agricultural landscapes and to assess their potential as habitat for breeding bird species that are considered either as crop pests or as useful biological control agents” (Jobin, Choinière, & Bélanger, 2001, p.131). The authors studied birds in natural hedgerows (communities of naturally-established trees and shrubs, averaging 19.3 ft. wide), planted windbreaks (rows of largely coniferous trees, averaging 19.7 ft. wide), and herbaceous strips on the edges of fields with an average width of 15.75 ft. As with Berges and her colleagues, the authors conducted bird counts during the morning hours of days in late spring and early summer when it was not rainy or windy. In diversity, abundance, and density (individuals per hectare), the natural hedgerows ranked highest, followed by the planted windbreaks with the herbaceous strips last. However, Jobin, Choinière, and
Bélanger concluded that the difference between the hedgerows and the windbreaks was not statistically significant across all three measurements. The authors also looked at the species of birds present in each buffer by determining each species’ RI, or relative importance, a factor which “yields information on the constancy of occurrence of different bird species” (Jobin, Choinière, & Bélanger, 2001, p.133). Natural hedgerows had the highest number of species with a high or moderate RI, while birds in herbaceous strips had primarily low RIs; windbreaks ranked in between. This result suggests that birds in hedgerows are likely to dwell permanently or semi-permanently in the buffer, providing long-term conservation and insect-control benefits, while herbaceous strips are primarily home to more transient species. To maximize bird diversity, the authors recommend buffers with a variety of tree types and a well-established understory of grasses and shrubs (Jobin, Choinière, & Bélanger, 2001).

Small mammals also benefit from the habitat provided by buffers, as demonstrated in a 2002 study by Chapman and Ribic. The authors focused on five stream-side buffer strips in southwestern Wisconsin, adjacent to grazing pastures (some of which were seasonally planted with corn and soybeans, others were continuously grazed). The buffers were 22.97 to 49.21 feet wide on either side of the streams, not including the streams themselves, and consisted of various grasses and sedges between 0.8 and 1.4 m (2.6 to 4.6 ft) tall; the authors then trapped, identified, and released small mammals found within 886 foot sections of buffer at varying distances from the streams. Chapman and Ribic found that small mammals were three to five times more prevalent in the buffers than in either the continuous or seasonally planted pastures, with no statistical difference in abundance or species diversity between the different pasture types. Abundance and diversity was two to three times higher in buffer sections closer to the streams, although some species were more prevalent away from the stream. Even with this different, abundance and diversity was higher in the buffers away from the steam compared with either type of pasture. The authors also note that “the 7–15m wide buffer strips in this
study were sufficient to provide enough habitat to meet home range requirements for these species” (Chapman & Ribic, 2002, p.57) instead of simply providing temporary foraging habitat. Furthermore, the authors found species in the buffers that do not normally live in grassy habitats; Chapman and Ribic hypothesized that such species were seeking refuge from predators found in their home habitats (Chapman & Ribic, 2002). A 2007 study by Herzon and Helenius corroborates this finding, noting that bioswale buffers act as habitat for mammals; furthermore such buffers may also act as wildlife corridors if sufficiently connected (Herzon & Helenius, 2008). This would allow for buffers to fulfill an additional role in Eastern Goleta Valley, working toward the community’s goal of “maintenance of habitat continuity and wildlife corridors” and “establishment, enlargement, and restoration of…wildlife corridors” (County of Santa Barbara, 2010, p.167).

As they promote biodiversity for animal life, buffers can also do the same for vegetation under certain circumstances, illustrated in a 2002 study by Paine and Ribic. The authors examined vegetation biodiversity in two kinds of buffers along stream beds in southwestern Wisconsin, grassy filter strips and woody buffers, in comparison to a pasture that was grazed year round and another pastures that was seasonally planted (similar to the conditions in the aforementioned Chapman and Ribic study). The four grassy buffers were of varying ages (3 to 20 years old), and the woody buffer strips were over 10 years old with at least 75% canopy coverage and trees in varying stages of maturity. The authors then counted the numbers and types of plants found in randomly selected sections of these buffers, as well as the two different types of pastures. Plants were categorized as grasses, forbs, or legumes; additionally native species and native grass species were identified. Paine and Ribic determined that the woody buffer strip harbored the greatest plant diversity overall; additionally this buffer type was also home to the greatest number of forbs and native species of all four surveyed land management techniques. The grassy buffer strip was the least diverse, both overall and in all individual
categories except for legumes, and the small size of the legume population resulted in no significant difference between the different management tactics. Both types of pastures had middling levels of diversity (except for in the native grasses category, where they were most diverse). The pasture that was rotationally planted was more diverse than the continuously grazed pasture, although the difference was not statistically significant. However the authors do not feel that grassy ecosystems are inherently less diverse, rather “sowing grass seed in boundary strips resulted in reduced species richness and low colonization rates of native species from uncultivated edges” (Paine & Ribic, 2002, p.103). The types of plants used in grassy buffers establish themselves very quickly and do not leave many niches that can be filled by other species. Paine and Ribic hypothesize that if normal vegetative succession is allowed to occur, grassy buffer strips may eventually transition to woody ones that would allow for greater species diversity (Paine & Ribic, 2002).

As the above studies have demonstrated, appropriately designed buffers are capable of providing habitat for many types of both plant and animal species, thereby helping to achieve the County’s goal of protecting biodiversity in Eastern Goleta Valley. Agricultural buffers can serve an additional role, one not often thought of, in helping to address climate change. One tactic to limit the emission of greenhouse gases such as carbon dioxide that are responsible for climate change is a process known as carbon capture and sequestration (CCS) wherein greenhouse gases are trapped and stored so they cannot contribute to climate change, resulting in a net decrease in emissions. While this process is often thought of as a highly industrial one, it is in fact something that that has existed for about 3.4 billion years as photosynthesis, the process used by plans to convert sunlight and carbon dioxide into energy (Davis, 2004, October 2). Using agriculture for CCS can result in fairly significant carbon uptake; Sonoma County estimates that widespread

“Farmers, ranchers, and forest owners have a great deal to contribute to mitigating climate change.”

- USDA Secretary Tom Vilsack
implementation of agriculturally-focused CCS would result in an annual reduction of 300,000 tons of greenhouse gases per year, or nearly 14% of the county’s total emissions (Sonoma County, 2008). However, using vegetation for CCS can have an impact when implemented even at a smaller scale. Farming practices are included as a potential strategy in Santa Barbara County’s climate action study, but buffers are not explicitly mentioned (County of Santa Barbara, 2011).

A 2010 study by Borin and a number of colleagues examine the various benefits offered to agricultural properties by buffers. In addition to looking at buffers as nutrient filters, windbreaks, and erosion control measures, the authors also studied the ability of buffers to act as carbon sinks. The buffers, located on a farm near the northeastern Italian city of Padua, were 6 m wide, and consisted of alternating rows of sycamore trees and the deciduous shrub *Viburnum opulus*. To test the amount of sequestered carbon in the ground, Borin and his colleagues took strips of soil at varying depths from underneath the buffers and in the nearby productive fields. The authors also examined the amount of carbon that was fixed into the wood of the trees and shrubs themselves. At different sites, the soil under the buffer strips sequestered 7.2 and 9.3 tons of carbon per hectare each year, while the neighboring agricultural fields emitted 8 and 33 tons of carbon per hectare per year from the decomposition of organic material (at 6 m wide, these buffers would have to be a little over a mile long to occupy one hectare). In addition, each tree sequestered 104 kg (229 lbs) during its first growing cycle; this tripled once the tree reached maturity (Borin *et al*, 2010). As a point of comparison, the average person in the US is responsible for the equivalent of about four tons of carbon dioxide from domestic activities, not including transportation (EPA, 2010).

A second 2010 study, this one conducted in France by Fortier and three of his colleagues, looked at carbon uptake of poplar trees when integrated into riparian buffer strips. The buffers themselves were 90 m (292 ft) long and 5.5 m (18 ft) wide on either
side of the streams, with three rows of hybrid poplar trees on each side. The sites of all four buffers received about the same amount of rainfall with growing seasons of similar length, but they varied in terms of elevation, topography, and land use. After six years of growth, the plants were harvested and analyzed to determine how much carbon they had sequestered. Amounts varied dramatically across the sites from 6.4 to 52 tons of carbon per hectare per year (each buffer occupied 990 square meters combined, about a tenth of a hectare). Eight-four to ninety percent of the sequestered carbon was stored in the stems, trunks, and branches of the trees and therefore remained fixed in the wood as long as the tree lived. The remaining carbon was sequestered in the leaves, and was released each year when the leaves fell off and decomposed. The authors attribute the difference in carbon uptake rates to the productivity of the soil, writing “site fertility in terms of NO₃ [nitrate, a nutrient for plants] supply rate was the main factor controlling biomass growth and consequently [carbon] sequestration… in hybrid poplars” (Fortier et al, 2010, p.285).

To maximize carbon sequestration, the authors recommend ensuring that the nutrient levels of the soil of a buffer being used for carbon capture are high enough to promote sufficient growth, without being so high as to result in excess nitrogen or phosphorus runoff (Fortier et al, 2010).

Lest there be any concerns about how buffers would be received in Eastern Goleta Valley, studies have shown that they are largely welcomed by all members of the community. A 2004 study by Sullivan, Anderson, and Lovell examined the expansion of the University of Illinois’ agricultural operations into an area already bordered by suburban development on three sides. The authors surveyed 470 individuals (94 farmers in Champaign County, 194 academics in the university’s College of Agriculture, and 182 residents in the proposed expansion area) and asked them to give their opinion of proposed buffer strategies on a scale of 0 (not at all favorable) to 4 (very favorable). There were six types of buffers, three with trees and three without, and each of the six types had a “basic” and “more extensive” option. For all three groups of respondents
in all six buffer types, respondents were at least twice as favorable to the presence of buffers compared to their absence, and “in fact, depending on buffer type, only 3–15% of the participants indicated the no buffer condition would be best” (Sullivan, Anderson, & Lovell, 2004, p.308). Residents and academics were more favorable to the extensive buffer compared to the basic one, although farmers were not. However, the authors speculated that this was because the farmers were concerned extensive buffers would require them to give up too much productive land and suggested “as opposed to relying on the farmer to dedicate land for buffers, a portion of the land in a newly developed area could be allotted for buffer zones abutting farmland” (Sullivan, Anderson, & Lovell, 2004, p.310), the same strategy being proposed in Eastern Goleta Valley.

Community outreach conducted with residents and farmers of Eastern Goleta Valley also show their preference for buffers. At a public comment session in January of 2010, many farmers expressed concern about some of the new development proposed in Eastern Goleta Valley and suggested that buffers would be an appropriate tactic to resolve some of the incompatibility problems. For example a community member and advocate for agricultural preservation gave a presentation in which she noted that urban agriculture in Eastern Goleta Valley is “facing increased pressure from urbanized land uses encroaching on ag-zoned land. Several small pockets of undeveloped land exist near ag-zoned areas in GV and need protection” (McGinnis, 2010, p.5). To address this problem, she specifically proposes a buffer policy, suggesting an interim 50-foot setback until more detailed standards can be adopted. The farmers of Eastern Goleta Valley are also highly supportive of buffer strategies (especially if they are implemented by surrounding landowners instead of the farmers themselves), seeing buffers as an effective means of working toward compatibility (GVPAC, 2010).

“Agriculture in the Eastern Goleta Valley has definite advantages, but it requires effort to co-exist with residential land uses.”

- EGV Farmer
Despite the wealth of academic literature on the benefits of agricultural buffers and the standards necessary to make them function effectively, relatively few jurisdictions prescribe specific guidelines or requirements for their buffers. A 1998 report by the California Environmental Resources Evaluation System (CERES) found 70 cities and counties in the state who reported that they require buffers between agriculture and surrounding land uses to minimize conflicts (CERES, 1998). However, an examination of all 70 municipal and county codes found this not to be the case: several jurisdictions did not even mention buffers, and many of those that did were unrelated to agricultural/urban incompatibility examples (for example, discussing buffers separating adult-oriented businesses from residential areas, or conservation buffers around wetlands). When agricultural buffers were discussed, they were often either as a zone of less intense agriculture to separate urbanized areas from intensive agricultural uses, or they were discussed in a very vague way (i.e. that a buffer should be used between agriculture and other uses, but offering no details). For example, Del Norte County requires that all new development adjacent to agricultural land construct a buffer/setback that is at least 100 feet wide (subject to modification) to separate the two land uses. The county prohibits locating any residential structures, gardens or orchards, or wells within the buffer/setback area, but provides no further details on buffer construction or maintenance (County of Del Norte, n.d.). El Dorado County recognizes that “the success and stability of agricultural enterprises can be profoundly influenced by the zoning and use of immediately adjacent lands” (County of El Dorado, 2009, p.187) and requires a buffer of at least 100 feet between agricultural and other land uses, but does not offer specifics. Santa Cruz County requires that other land uses have a setback of at least 200 feet from agricultural areas that “shall incorporate vegetative or other physical barriers as determined necessary to
minimize potential land use conflicts” (County of Santa Cruz, n.d.), but again, no further
details are offered. The jurisdictions examined in greater detail in this section are those
with more rigorous requirements, detailing issues such as permissible land uses within
the buffer, buffer composition, and buffer function. Some jurisdictions specify issues
such as public access (pedestrian, bike, and vehicular), the nature of any allowable uses,
and required qualities of any vegetation used in the buffer (i.e. native, drought-tolerant,
evergreen, etc.). Map 4 shows the jurisdictions that are examined in this section, and
Table 5 details their specific requirements.

Although they are the minority, there are some jurisdictions with specific
requirements for buffers intended to minimize compatibility issues. The city of Davis,
CA has incorporated buffer provisions into its Right to Farm
and Farmland Preservation
Ordinance (Appendix B) with
the specific purpose “to reduce
the potential conflicts between
agricultural and nonagricultural
land uses” (City of Davis, n.d,
p.1), as demonstrated in Figure 8.

Similar to the proposal being put forward by Santa Barbara County for Eastern Goleta
Valley, Davis requires the buffers to be built by those developing land adjacent to farms
or other agricultural operations so as not to remove farm land from production, as
recommended in the 2004 study by Sullivan, Anderson, and Lovell. The city requires
these buffers to be at least 150 feet wide (although 500 feet is recommended in order to
comply with county setbacks for pesticide spraying), composed of two parts: a 100-foot-
wide closed section and a 50-foot-wide section with limited access. The 100-foot-wide
strip (referred to as the actual buffer) must be constructed of “native plants, tree or hedge
rows, drainage channels, storm retention ponds, natural areas such as creeks or drainage swales, railroad tracks or other utility corridors and any other use, including agricultural uses, determined by the planning commission to be consistent with the use of the property as an agricultural buffer” (City of Davis, n.d., p.4). There are no requirements for address pollution, erosion control, habitat, or any other specific buffer functions, although the buffer must incorporate plans for maintenance and integrated pest management. Davis does not permit public access into the buffer section and requires that the land be titled to the city (or at least the city must hold an easement over the land). The 50-foot-wide strip, known as the agricultural transition area can incorporate “bike paths, community gardens, organic agriculture, native plants, tree and hedge rows, benches, lights, trash enclosures, fencing…” or other uses that are of the same “general character” (City of Davis, n.d., p.4). Public access into this area is required and must be dedicated to the city. In the case of both the buffer and agricultural transition areas, Davis’ Parks and Community Services Director must approve the plan.

The city of Arroyo Grande, CA has a buffer requirement that is in some ways similar to the one implemented in Davis. In Arroyo Grande’s Right to Farm Ordinance, the city proclaims that maintaining widespread agricultural uses is a “high priority” and that it is necessary “to minimize potential conflicts between agricultural and nonagricultural land uses, including the protection of public health, the reduction of noise and odor, and the reduction of risk to farm operations from domestic animal predation, crop theft and damage and complaints from neighboring urban dwellers” (City of Arroyo Grande, n.d). The buffers intended to address this concern must be built on the land adjacent to agricultural operations whenever the land in question is developed; such buffers must be at least 100 feet wide as a general principle, although the buffer can

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“The City of Arroyo Grande is an agricultural City. The presence of farms yields significant aesthetic and economic benefits to the residents of the City. Thus, the City’s agriculture must be protected.”

- Arroyo Grande City Code

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be smaller if some other separation (such as a riparian area) already exists between
the farm and the development. As with Davis, Arroyo Grande divides the buffer into
two segments: an 80-foot-wide buffer and a 20-foot-wide agricultural transition area.
Arroyo Grande is less restrictive than Davis in what these sections can be composed of;
in addition to trees, hedgerows, drainage swales, etc., the buffers can include roads and
even limited commercial use. However, the city does generally prohibit residential uses in
the buffer area. One notable requirement of buffers in Arroyo Grande is that, in addition
to integrated pest management, these buffers must include a means of preventing soil
erosion.

Napa, CA has established a buffer requirement for residential land uses that
border agricultural operations in order to protect “the health, safety and welfare of the
residents of the city and [contribute] to the long-term preservation and maintenance of
agricultural activities in Napa” (City of Napa, n.d.). Napa also divides its buffer into both
a physical barrier (the buffer itself) and a wider setback area. While the buffer itself must
be at least 20 feet wide, the city bases the required width of the overall separation on the
density of the residential development. For a density under 6 du/ac, the separation must
be at least 80 feet wide, 120 feet wide for a density over 10 du/ac, and 100 feet wide
for anything in between. The buffer section itself must reduce noise and dust, as well
as diffuse light and act as a clear physical barrier, but can be made out of any sufficient
material (trees, shrubs, earthen berms, walls, etc.). Napa requires that detailed drawings
of the proposed buffer/setback be submitted and subject to approval. No structures are
permitted in the buffer/setback area except for those necessary to ensure the buffer’s
proper operation (such as pumps).

The city of Patterson, CA has incorporated agricultural buffer protections in its
recently-adopted general plan. A fairly small city surrounded by agriculture, Patterson is
growing rapidly; within 20 years the population is expected to grow from about 21,000 to
46,000 – 64,000 under various alternative scenarios (City of Patterson (b), 2010, p.5.2-
Patterson’s buffer requirements are rather unique in that there are no width standards; instead the city focuses on function. The new general plan requires a buffer between agricultural land and any school or residential development. Although canals, roads, and creeks can be used as a buffer if feasible, in other circumstances the city requires that “fences shall be installed on the non-agricultural use, which shall be designed to limit the drift of pesticides or other sprays, and shall discourage climbing and graffiti to the extent possible” (City of Patterson (a), 2010, p.NR-17). Instead of limiting developers to particular dimensions or composition (shrubs, trees, metal wires, etc.), Patterson only stipulates the function that the buffer must satisfy and lets the developer address the details, although it does recommend man-made structures (fences, roadways, etc.). A section of the buffer policy also addresses the issue of conversion if a buffer fence is constructed to separate agriculture from a surrounding development, and then the agriculture itself is developed. In the event this occurs, the owner of the property where the buffer fence is located decides whether to remove it; if they chose to, the cost of removal is borne by the person or entity seeking to develop the agricultural land (City of Patterson (a), 2010, p.NR-18).

A county-wide approach to agricultural buffers has been adopted in Ventura County, CA with the purpose “to prevent and/or mitigate conflicts that may arise at the agricultural/urban interface” (County of Ventura, 2006, p.1). These buffers, as with the others previously described, must be located on the land that is being developed instead of on the farm. Ventura County offers developers two choices: install a reinforced chain-link fence at least eight feet high to deter vandalism and then set most types of development back at least 300 feet, or create a vegetative screen with most development at least 150 feet behind. The requirements for the vegetative screen are quite specific: two staggered rows of drought-tolerant evergreen trees and shrubs. The plants must be at least 6 feet tall at the time of installation, and the trees must reach a height of 15 feet or more at maturity. Porosity of the plants should be between 0.5 and 0.75 (notably much more
sparse than recommended by Mercer, 2009; Adrizal et al, 2008, and others) and a long-
term management plan is required. The policy also recommends (though not requires) that the rows be five feet apart and use plants such as the Italian cypress (Cupressus sempervirens), toyon (Heteromeles arbutifolia), and sugarbush (Rhus ovata). Roads, parking, and storage facilities are permitted in the 300-foot-wide setback zone behind the chain-link fence. If a vegetative buffer is used, the 150-foot-wide setback can also include pedestrian and bicycle trails, produce stands, and even front yards of residential buildings.

County-wide requirements also exist in San Luis Obispo County, CA, contained in the appendices of the Agriculture element of the county’s General Plan, an example of which is shown in Figure 9. Buffers are not mandatory in all circumstances, but they are one possible mitigation measure that can be applied “if potential ‘significant land use conflict’ between agricultural lands and non-agricultural lands will occur with the proposed project” (County of San Luis Obispo, 2010, p.C-1). The County identifies ten land use conflicts that buffers can help resolve; in addition to the usual issues such as erosion control and dust screening, the County also notes that buffers can serve uses such as providing habitat for pollinating bees (as noted in the Greenleaf & Kremen, 2006 study) and prevent unwelcome insects from moving between residential yards and agricultural properties. If the County determines that a buffer is needed after evaluating the situation and conducting hearings, the buffer must be placed on the land proposed for development. Buffer widths vary from 50 to 600
feet, depending on the nature of the agricultural use, the topography and climate of the site, and “relevant site and project criteria, practical knowledge of agricultural practices, technical literature, contact with other professionals within [California Polytechnic State] University, industry, government agencies and training” (County of San Luis Obispo, 2010, p.C5). The buffer requirements specifically state that the County will not mandate particular plants or materials to make up the buffer, “but may state objectives and evaluate the applicants’ written proposal” (County of San Luis Obispo, 2010, p.C7).

Stanislaus County, CA also has buffer guidelines as an appendix to the county general plan Agriculture element, applied to any discretionary development proposed in or adjacent to the county’s General Agriculture zones. The buffer must be at least 150 wide (300 feet if an intensive outdoor use, such as a sports field, is being proposed), although much of this land can be empty or used for low-intensity purposes. Within this zone, Stanislaus County requires a vegetative buffer similar to the option that can be used in Ventura County: at least two-rows of drought-tolerant and fast-growing shrubs and trees that are at least six feet high at installation and at least 15 feet high at maturity. As also with Ventura County, Stanislaus County requires a porosity between 0.5 and 0.75. Various uses are permitted within the buffer zone, such as “public roadways, utilities, drainage facilities, landscaping, parking lots and similar low human intensity uses. Walking and bike trails shall be allowed within buffers provided they are designed without rest areas” (County of Stanislaus, n.d., p.7-33). The County specifically mentions that any landscaping within the buffer zone may not significantly increase maintenance cost or water use, nor can it include lawns or other turf that might promote recreational uses. If the proposed development adjoins an existing agricultural operation, the County also requires a six-foot-high solid wall at the property boundary. Stanislaus County also requires that the developer designate a responsible party to maintain the buffer, including replacing dead plants, as necessary.
<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Stated Function</th>
<th>Buffer Width</th>
<th>Composition</th>
<th>Access</th>
<th>Land Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arroyo Grande</td>
<td>Reduce conflicts, minimize public health risks, decrease threats to farms</td>
<td>100 ft.</td>
<td>Native plants, trees and hedge rows, utility corridors, drainage channels, etc.</td>
<td>Vehicle, pedestrian, and bicycle access allowed, but not required.</td>
<td>Agriculture, open space, limited commercial use allowed. Residential uses banned.</td>
</tr>
<tr>
<td>Davis</td>
<td>Reduce conflicts, minimize public health risks</td>
<td>150 ft.</td>
<td>Native plants, trees and hedge rows, utility corridors, drainage channels, etc.</td>
<td>Pedestrian and/or bicycle access required.</td>
<td>Agriculture, open space allowed.</td>
</tr>
<tr>
<td>Del Norte County</td>
<td>Reduce conflicts, decrease threats to farms</td>
<td>100 ft.</td>
<td>Not mentioned</td>
<td>Not mentioned</td>
<td>New residential and agricultural uses banned.</td>
</tr>
<tr>
<td>El Dorado County</td>
<td>Decrease threats to farms</td>
<td>100 ft.</td>
<td>Not mentioned</td>
<td>Not mentioned</td>
<td>Not mentioned</td>
</tr>
<tr>
<td>Napa</td>
<td>Reduce conflicts, minimize public health risks, decrease threats to farms</td>
<td>80 – 120 ft.</td>
<td>Mix of trees, shrubs, fencing, etc. Accessory structures banned.</td>
<td>Not mentioned</td>
<td>Not mentioned</td>
</tr>
<tr>
<td>Patterson</td>
<td>Minimize public health risks</td>
<td>No set width</td>
<td>Fences, roadways, creeks, canals, etc.</td>
<td>Vehicle access allowed</td>
<td>Not mentioned</td>
</tr>
<tr>
<td>San Luis Obispo County</td>
<td>Reduce conflicts, minimize public health risks, decrease threats to farms</td>
<td>50 – 600 ft.</td>
<td>Vegetation, creeks, etc.</td>
<td>Not mentioned</td>
<td>Permitted in some cases (specifics not mentioned)</td>
</tr>
<tr>
<td>Santa Cruz County</td>
<td>Reduce conflicts, minimize public health risks</td>
<td>200 ft.</td>
<td>Vegetation, “other physical barriers”</td>
<td>Not mentioned</td>
<td>Recreational, limited residential uses allowed.</td>
</tr>
<tr>
<td>Stanislaus County</td>
<td>Reduce conflicts, decrease threats to farms</td>
<td>150 – 300 ft.</td>
<td>Solid walls with two staggered rows of drought-tolerant trees and shrubs</td>
<td>Vehicle access allowed. Pedestrian and bicycle access allowed with rest areas</td>
<td>Not allowed.</td>
</tr>
<tr>
<td>Ventura County</td>
<td>Minimize public health risks, decrease threats to farms</td>
<td>150 – 300 ft.</td>
<td>Reinforced 8-foot-tall chain link fence with two staggered rows of drought-tolerant evergreen trees and shrubs</td>
<td>Vehicle, pedestrian, and bicycle access allowed, but not required.</td>
<td>Agricultural, farm-worker housing, recreational, other “low-intensity land uses”</td>
</tr>
</tbody>
</table>
Literature Review: Zoning and TDR

While buffers are helpful to minimize conflicts between agriculture and surrounding land uses, they do nothing to resolve the difficult economics of farming. A 2010 report written by Hoppe, MacDonald, and Korb for the USDA’s Economic Research Service found that small farms (those with a gross income smaller than $250,000) are the most likely to have profits that are small or non-existent, and profit decreases with size. Even among the largest of these small farms (with a gross income between $100,000 and $250,000), about 40% run at a net loss and a further 10% have a profit margin smaller than 10%. About 60% of operators and/or their spouses of small commercial farms work off of the farm to bring in supplemental income (Hoppe, MacDonald, & Korb, 2010).

The problem is greater in Eastern Goleta Valley, where relatively small parcels sit on very valuable land, and farmers have little economic incentive to keep their land in active agricultural production. Several farmers, particularly those in the Western More Mesa area (the southernmost section of the South Patterson agricultural block, closest to the shoreline), have publicly commented that some development of their land is inevitable; one operation noted “the Patterson Ave. – More Mesa growers will dwindle in the next years because…the soil and Nursery economics are not suitable for conversion to food crops. The blocks as presently zoned will be sold to large homeowners and will most likely be minimally used [for] commercial Agriculture purposes unless flexibility is provided” (Deigaard, n.d., p.1).

To ensure the economic viability of agricultural operations by providing this flexibility, the draft community plan for Eastern Goleta Valley says that Santa Barbara County “shall establish a new zoning district for urban agricultural land in Eastern Goleta Valley” (County of Santa Barbara, 2010, p.88). While the plan makes clear that agriculture should remain the primary use of the land, the County shall also “define a flexible range of small-scale allowable secondary uses that are compatible with urban...
agricultural uses that…support, complement, and promote sustainable agricultural
operations and agritourism and enhance the attractiveness of urban agriculture as an
enterprise” (County of Santa Barbara(b), 2010, p.89). The following section will look at
the effectiveness of agritourism by examining the motivations for doing so, the benefits
to farmers who engage in these activities (particularly in the form of additional revenue),
and the types of farmers who are likely to support agricultural diversification. This
section will also study the demographics of people who visit agritourism operations
as well as the benefits of agritourism to the great community. Lastly, there will be a
discussion about Transfer of Development Rights (TDR) programs as an economic boost
for farmers and the factors that make for successful TDR implementation.

It is important to mention that research on agritourism and diversification in the
US remains very much a work in progress, as most of the attention in this field has been
focused on other parts of the world, especially Europe (Barbieri, Mahoney, & Butler,
2008). While agritourism is fairly recent development in the U.S., it has been practiced
for centuries in parts of Europe and Asia. It is estimated that about a third of all farms in
the United Kingdom engage in agritourism activities, with even higher levels in France
and Italy (Bernardo, Valentin, & Leatherman, 2004). Several of the studies presented in
this section examine agritourism in European nations, and while such studies may not
be always applicable to the United States due to different government policies, culture
and worth ethics, etc., they can provide a general indication of how well diversification
works.

Various academic studies have supported agricultural diversification, defined
as “any activity developed on a working farm or ranch by any member of the farm
household that generates additional income or adds to the farm/ranch value” (Babieri,
Mahoney, & Bulter, 2008, p.4) as an effective technique to enhance the economic
viability of farms; one such paper is a 2009 study by Barbieri and Mahoney which
examined agricultural diversification among Texan farmers and ranchers. The authors sought to address four questions: what drives diversification, what is the relative importance of different goals, can such goals be simplified, and what characteristics of the farm and farmer are associated with particular goals? Barbieri and Mahoney sent surveys through email and postal mail to 631 Texan agricultural operations that were known to have diversified; 231 surveys were completed and returned. The types of diversification fall into six broad categories: non-traditional crops and pastures; direct marketing and merchandising (selling produce directly through a farm stall or a website, for example); offering recreation, tourism, and hospitality opportunities (such as self-pick programs, farm tours, and bed and breakfast facilities); renting land for events such as weddings; contract services (such as assisting in planting and harvesting of other farms); and value-added operations (such as packing produce on-site). New marketing opportunities were the most popular form of diversification, practiced by close to 90% of respondents. About two-thirds of the farmers surveyed raised non-traditional crops and/or conducted agritourism (the strategy supported by Santa Barbara County in the Eastern Goleta Valley Community Plan). Other options were less popular, with less than 40% of respondents practicing these forms of diversification. Farmers were also asked why they diversified and how important they considered each reason to be. Table 6 on the next page details the results of these questions.

Footnote:
3 Farmers ranked each goal on a scale of 1 to 5, with 1 being not important and 5 being very important.
Table 6: Reasons and Importance of Diversification

<table>
<thead>
<tr>
<th>Goal</th>
<th>Reason</th>
<th>Average Importance³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generate additional income</td>
<td>83.7%</td>
<td>3.80</td>
</tr>
<tr>
<td>Continue agricultural operations</td>
<td>53.4%</td>
<td>2.94</td>
</tr>
<tr>
<td>Enhance personal/family life</td>
<td>52.4%</td>
<td>2.93</td>
</tr>
<tr>
<td>Generate revenues from existing sources</td>
<td>50.5%</td>
<td>2.60</td>
</tr>
<tr>
<td>Respond to market need or opportunity</td>
<td>49.5%</td>
<td>2.50</td>
</tr>
<tr>
<td>Keep farm or ranch in the family</td>
<td>47.1%</td>
<td>2.78</td>
</tr>
<tr>
<td>Increase market diversity</td>
<td>44.2%</td>
<td>2.46</td>
</tr>
<tr>
<td>Capitalize on an interest</td>
<td>38.0%</td>
<td>2.14</td>
</tr>
<tr>
<td>Interact with customers</td>
<td>38.0%</td>
<td>2.26</td>
</tr>
<tr>
<td>Educate customers</td>
<td>33.7%</td>
<td>2.12</td>
</tr>
<tr>
<td>Offset fluctuations in revenue</td>
<td>33.2%</td>
<td>2.06</td>
</tr>
<tr>
<td>Generate revenues during off-season</td>
<td>32.7%</td>
<td>2.11</td>
</tr>
<tr>
<td>Provide customers with new products</td>
<td>32.7%</td>
<td>2.02</td>
</tr>
<tr>
<td>Provide a new challenge</td>
<td>32.7%</td>
<td>2.05</td>
</tr>
<tr>
<td>Enhance ability to meet financial obligations</td>
<td>29.8%</td>
<td>2.09</td>
</tr>
<tr>
<td>Make farm more financially independent</td>
<td>26.9%</td>
<td>1.90</td>
</tr>
<tr>
<td>Reduce debt</td>
<td>26.4%</td>
<td>1.96</td>
</tr>
<tr>
<td>Reduce impacts of catastrophes</td>
<td>25.5%</td>
<td>1.81</td>
</tr>
<tr>
<td>Provide employment for family members</td>
<td>22.1%</td>
<td>1.68</td>
</tr>
<tr>
<td>Qualify for government assistance programs</td>
<td>12.5%</td>
<td>1.38</td>
</tr>
</tbody>
</table>

Adapted from Table 3 (Barbieri & Mahoney, 2009, p.63)

Although there are myriad reasons to diversify, it is plain that the driving factor is the economic benefit that diversification provides. Of the four reasons that at least half of the surveyed farmers identified as an objective, three of them are economic rationales. The desire to generate additional income is by far the most popular goal to diversification and the reason that is considered the most important (Barbieri & Mahoney, 2009).

Other papers, such as the previously-mentioned 2008 study by Barbieri, Mahoney, & Butler, have arrived at similar conclusions. This particular paper examined diversification in a similar way, seeking “to better understand farm diversification in North America, as recent studies in this area have focused on Europe or Oceania” (Barbieri, Mahoney, & Butler, 2009, p.207). The authors sent an electronic survey
to 853 members of the North American Farmer’s Direct Marketing Association, encouraging recipients to forward the message to other farmers. A total of 1,241 surveys were completed, with 77.5% of the responses coming from the United States, 22.4% from Canada, and a single respondent from Mexico. Farms were divided into three categories: lightly-diversified (those with one or two diversification activities, 19.5% of respondents), moderately diversified (three or four diversified enterprises, making up 47.5% of respondents), and highly diversified (33.1% of respondents with five or more diversification activities). The farms were also mostly smaller operations, with nearly 60% being smaller than 100 acres and more than 90% being run by five or less full-time employees (close to half had no full-time employees at all). It bears noting that “tests did not reveal any statistically significant relationship between diversification and farm size in terms of acreage” (Barbieri, Mahoney, & Butler, 2009, p.221). Given that the survey was sent out through a direct marketing association, it should not be surprising that all respondents engaged in some form of direct marketing (the study uses the same diversification categories as Barbieri & Mahoney, 2009). Non-traditional crops and value-added programs were the second and third most popular categories, respectively. Among individual activities, an on-farm market was the most popular, with 53% of respondents practicing this form of diversification. Growing organic food, offering tours, and engaging in other form of direct marketing were other leading activities. The authors discovered that farms that were highly diversified had statistically-significant higher income, as nearly 49.4% had income above $100,000 compared to 31.3% of moderately diversified operations and 24.2% of lightly diversified farms. Interestingly, the authors also found that higher levels of diversity were at least correlated with environmentally responsible practices. Highly-diversified operations practiced an average of 6.5 environmentally-preferred processes (out of 13 options), while moderately-diversified farms carried out 5.6 of these practices and lightly-diversified farms practiced an average of 3.9 environmentally responsible policies.
These trends, examined previously in Texas and in North America at large, are also present in California’s agritourism sector, which is also motivated in large part by the farmers’ desires for higher profits. A 2009 presentation by George, Rilla, and Leff at the National Extension Tourism Conferences sought to understand four issues: the needs and objectives of agritourism operators in California, how to improve a database of such operators, understand the size and profitability of California’s agritourism sector, and how to develop outreach programs for this sector. The survey was conducted in February of 2009 through the mail, and was sent out to 1,940 individuals with 332 responding. While there were responses from across the state, 84 (25.3%) were from the Central Valley and a further 80 (24.1%) were from the Foothill and Mountains region. The North Coast was third and the Central Coast (which includes Santa Barbara County) was fourth; together these four areas contained 85.5% of respondents. Reflecting the same trends noticed by Barbieri and Mahoney, the single greatest reason farmers gave for opening their farms to the public was to increase profit; 75.2% of respondents identified this as a reason. Further responses are given in Table 7 below (the full presentation is available as Appendix C).

<table>
<thead>
<tr>
<th>Table 7: Reasons for Diversifying among California Farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Increase profit</td>
</tr>
<tr>
<td>Educate visitors</td>
</tr>
<tr>
<td>Marketing</td>
</tr>
<tr>
<td>Personal satisfaction and enjoyment</td>
</tr>
<tr>
<td>Community outreach</td>
</tr>
<tr>
<td>Family satisfaction and enjoyment</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

Adapted from Chart 3, George, Rilla, & Leff, 2009, p.12

Profit was the primary rationale for most farmers, and generally increased profits have resulted. On a scale of 1 to 7 (1 being not at all profitable and 7 being highly profitable), about two-thirds of respondents gave their operations a 3 (meaning at least “more than slightly profitable”). However only about 6% of respondents graded their
agritourism operation as 6 or 7. A plurality of revenue (45.1%) came from sale of agricultural products, with U-Pick operations coming in a distant second at 12.2%. Farm tours were third, accounting for 9.2% of revenue, and 5 other profit sources each made up about 3 to 5% of revenue. Many farmers established a direct marketing operation on their land. Thirty-seven point six percent of all respondents had a farm stall that sold fresh produce and 17% of respondents sold processed goods (such as cheese). U-Pick operations and vineyards/wineries were also quite popular, with 22.7% and 21.5% of farmers operating these attractions, respectively. Uniquely among the sources examined in this section, this survey specifically asked about facilities and events. Weddings and retreats were moderately popular, with 32.9% of respondents charging a fee for holding these events on their land (and 22.4% charging a change fee). Farm stays were the second most common event, with 15.1% of respondents earning revenue from these operations.

George, Rilla, and Leff put a particular emphasis on wineries and vineyards as a form of agritourism, noting that California by itself is the world’s fourth-largest producer of wine. The authors refer to wineries as “remarkably effective magnets for tourism” (George, Rilla, & Leff, 2009, p.10) and suggest that the wine industry should be an integral component of California’s agritourism sector.

To better demonstrate the truly international appeal of agritourism, one can find similar results among agritourism operations in Europe. A 1996 study by Hjalager looked at farms in Denmark which had been the recipient of European Community (now European Union) grants intended to boost tourism in rural areas and “create additional sources of income for agricultural holdings” (Hjalager, 1996, p.104). The author conducted telephone interviews of 67 Danish farms which had received funding from the EC to construct or renovate tourism facilities, including summer houses, campsites, tours, museums, and workshops. Hjalager found that, prior to investment, the 67 farms brought in a total profit of 7,781,000 ECUs (European Currency Units, the forerunner to the Euro) from traditional agricultural practices and only about 15,000 from alternative activities,
for a total of 7,796,000 ECU. After investment, the same 67 farms experienced a slight decrease in profit from traditional agriculture, down to 7,757,000 ECU. However profit from alternative income sources rose to 994,000 for a grand estimated total of 8,751,000 ECU profit for all farms, or about 12.25% of an increase. The author did find that the profits from diversification varied from less than 4,000 to more than 25,000 ECU, reasoning that “a professional farming attitude, larger scale activities and probably greater availability of capital” (Hjalager, 1996, p.105) were the likely explanations for the range of results. Hjalager also examined the time commitment required by diversification, finding that prior to the EC investment, the 67 farmers combined spent 197,063 hours per year on traditional agriculture and 500 on alternatives, for a total of 197,563 hours per year (or 8.08 hours per farmer per day). After investment, the same farmers spent 194,540 hours on traditional practices and 43,068 hours on diversified activities, resulting in 237,608 hours a year or 9.72 hours per farmer per day. Therefore, while profits increased 12.25%, such actions also required a 20.3% increase in time commitment (Hjalager, 1996).

While agritourism is beneficial to the farms that engage in such practices, it is also advantageous to the greater community, as indicated by a 1999 study by Lobo and a number of colleagues. The authors looked at a popular operation called The Flower Fields in Carlsbad, CA, which is a working Ranunculus (buttercup) farm, shown in Figure 10. Faced with declining profits from bulb-growing activities,
the owners opened the farm to the public in 1993 during the 10-week blooming season. The authors conducted a survey of 543 visitors at The Flower Fields during April of 1998 in order to determine the economic benefit of the agritourism operation (which primarily consists of farm tours and direct marketing) on both the city of Carlsbad and San Diego County. While The Flower Fields did bring in about $600,000 in additional revenue during the 1998 blooming season as a result of charging for admissions, there was also a substantial profit to the local economy. The authors determined that there were a total of 53,028 groups of visitors during the 10-week period, with an average of 3.77 people per group. More than half of these groups paid money for food/drinks and recreational activities in Carlsbad, resulting in $1,249,910 of spending. Smaller numbers of groups spent money on lodging, gasoline/auto related expenditures, and other products; the total money put into the Carlsbad economy by visitors to The Flower Farm was $2,363,853. As a result of economic multipliers, the authors reasoned that “the expenditures made by visitors to The Flower Fields resulted in a total impact of $3,778,653 on the economy of Carlsbad” (Lobo et al, 1999, p.23). Furthermore, despite being a highly seasonal event, Lobo and his colleagues determined that 69 new jobs are created by a result of the blooming season. Notably, 81% of visitors mentioned that The Flower Fields was one of their most important reasons for visiting Carlsbad, indicating that engaging in agritourism can be a planned activity and not an incidental spur-of-the-moment decision. The visitors themselves also represented a highly diverse group in terms of age, educational level, income, ethnicity, and where they had traveled from. The one demographic that was less balanced was gender as 60% of visitors to The Flower Fields were women, although this likely has less to do with agritourism in general and more the specific nature of the operation. The authors conclude that “agritourism may provide the economic incentives that growers need to keep their farms viable and to keep their land in agriculture”, but also “agritourism can…educate consumers about local agriculture, its issues and its
importance for the county’s economy and quality of life…[and] also showcases the
diversity and uniqueness of local agriculture” (Lobo et al, 1999, p.24).

Given the large income of The Flower Fields and its prominence as a tourist
destination in northern San Diego County, it is easy to assume that such an operation is
relatively unique. However, other studies have substantiated the significant economic
benefits of agritourism and the diverse nature of people who are attracted to such
destinations. To give one example, a 2004 paper by Bernardo, Valentin, and Leatherman
examined agritourism in Midwestern states, seeking understand more about who visits
farms with these sorts of amenities. Analyzing data from the USDA’s National Survey
on Recreation and the Environment, the authors found a high degree of diversity among
agritourism in their income levels, age, and where they had traveled from, similar to
the results found by Lobo and his colleagues. Agritourists in the Midwest identified the
scenery as a priority, with over 90% saying it was an important or somewhat important
reason for visiting. Visiting family/friends and participating in farm activities was a
close second and third, identified as a priority by about 75% and 70% of respondents,
respectively. Hunting and fishing ranked lowest, being a priority for only about 30% of
respondents. Bernardo, Valentin, and Leatherman also looked at the economic benefits of
agritourism. In 2000, they found that agritourists spent about $78 million in Kansas, with
$25 million coming from out-of-state visitors. The income was spread across multiple
economic fields, although travel costs consisted of the largest segment (about $37
million). Similarly, agritourism generated jobs in virtually all segments of the economy,
creating an estimated 1,439 jobs statewide in 2004. Interestingly, and important for
Eastern Goleta Valley, the authors concluded that the biggest challenge to the viability
of agritourism is the relatively scattered and rural nature of destinations, noting that
“tourists are more likely to travel to a destination if there are several tourist stops to visit”
(Bernardo, Valentin, & Leatherman, p.15)
Of particular relevance to a governing agency, permitting and zoning is an issue of concern among agritourism operators. 28% of respondents (the second-largest segment) said that these issues were “very challenging” and a further 14% and 18% rated permitting and zoning as “challenging” or “somewhat challenging”, respectively. Permitting and zoning overall was the third biggest challenge to agritourism, running very closely behind “Other regulations and legal constraints” and “Liability/insurance issues”. This issue will be address in greater detail in the following section.

Agritourism is clearly a net positive for farmers and for the community at large, but not all farms are able to implement agritourism operations (for reasons other than regulatory limitations, which will be discussed in the following section). Instead, it is a certain kind of farmer that is likely to operate agritourism facilities, as demonstrated in a 2002 study by Daskalopoulou and Petrou, who examined farms in Greece to determine the nature of farms that were more likely to diversify. The authors categorize farms into three groups: Type I (subsidence) farms that rent their land, are very small with a low degree of mechanization, and farm for their own household; Type II (survivalist) farms ranging from around 3 to 120 acres that are family run for commercial purposes, with varying ownership and level of mechanization; and Type III (productivist) farms that are large and highly mechanized, or operations that are typically labeled as “industrial farms”. Daskalopoulou and Petrou conducted a study of farms in 14 Greek provinces to see whether any of these three types was more inclined to engage in alternative income-generating activities. By using data from various government sources, the authors determined that neither subsidence nor productivist farms were particularly likely to diversify. Subsidence farms’ “production practices conform closely to hobby/retired farming” (Daskalopoulou & Petrou, 2002, p.100) and as a result are unlikely to invest significant time to bring in profits when the operation is not a commercial venture to begin with; the authors suggest that even grants and other financial incentives are unlikely to work. Productivist farms, on the other hand, prefer to increase their profits through
more familiar tactics (primarily increasing productivity and decreasing operating costs). Because they are unfamiliar with these alternative strategies and are considered more risky, they are less likely to pursue diversification. Indeed, it is survivalist farms (which bear the closest resemblance to Eastern Goleta Valley farms of the three categories) that are the most likely to diversify. The authors note that “these farms have been identified as the most likely ones to adjust in the changing policy and economic environment through the adoption of alternative farm activities” (Daskalopoulou & Petrou, 2002, p.102). Because they are the ones most dependent on economic situations (Type I farms are unconcerned with profits, and Type III farms have the capital and lines of credit to survive economic downturns), it is the Type II farms that are most sensitive to changing trends. As agritourism and other diversified activities become popular, it is these farms that the authors conclude are the most receptive.

In addition to zoning uses that permit agritourism, there are other land use mechanisms intended to provide increased revenue to farmers. One popular tool has been the California Land Conservation Act of 1965, commonly referred to as the Williamson Act. Under the Williamson Act, local governments reach an agreement with an owner of agricultural land to keep the parcel in active farming use for a ten-year period, which can be renewed. Since the property cannot be used for any purpose but farming (no potential as a subdivision, commercial shopping center, etc.), it is assessed at a lower value and the landowner pays lower property taxes as a result. At the beginning of 2009, about 15 million acres (half of the state’s farmland and close to a third of the state’s total private land) was protected under the Williamson Act, including 549,746 acres in Santa Barbara County (California Natural Resources Agency, 2010). However, the Williamson Act is not being used in the urbanized Eastern Goleta Valley because of the small size of the parcels and the uncertain economic situation of the parcels make farmers unlikely to commit to a ten-year contract (E. Leachman, personal communication, December 3, 2010).
A second and more feasible option is the use of transfer of development rights, commonly referred to as a TDR program. Under such a program, owners of land the County wants to remain undeveloped (such as the farms of urbanized Eastern Goleta Valley) could sell their development rights to a landowner of a parcel where development is more suitable. The extra development rights allow the second landowner to build at a greater density than they would otherwise be allowed to. The establishment of a TDR program has been a goal since the completion of the earlier Goleta Community Plan in 1993 (County of Santa Barbara, 1993). For the 2010/2011 fiscal year, the county initially allocated $107,190 to create a TDR, although the project had to be postponed due to ongoing budgeting pressures (County of Santa Barbara(b), 2010). A variation of this program, known as purchase of development rights (PDR), occurs when a government agency, non-profit, or private entity buys the development rights to a particular piece of land but does not exercise them. The landowner continues to own the land and can use it for specific purposes (such as agriculture) but cannot develop it. A statewide PDR program was established in March of 2002 by Proposition 40, providing grant money to purchase agricultural development rights, although as of March 2010 no land in Santa Barbara County was protected by Prop 40 funds (CA Department of Conservation, 2010). While TDR programs are used as a farmland protection tool in most of the country, in California they have mainly been used for environmental protection (Fulton & Shigley, 2005).

There are numerous spatial and demographic factors that can influence the success of a TDR/PDR program, including proximity to urban environments, sources of income, and size of the farm in question. A 2003 study by Lynch and Lovell looked at some of these factors by identifying four counties in Maryland that rank among the highest counties for agricultural land preserved through TDR/PDR: Montgomery, Howard, Carroll, and Calvert Counties. The authors then conducted telephone and letter surveys with farmers in these counties who had either enrolled in a farmland
preservation program or had not done so but were eligible, ultimately surveying 836 people. Geographically, the authors found that size and proximity to major urban areas were the factors most likely to influence participation in a TDR/PDR effort. At a distance of 15 miles from a major urban area (in this case, Washington D.C.), the likelihood of participation in a TDR/PDR program was about 16%. At 30 miles, the likelihood was about 31% for either program, and 60% specifically for a PDR program. For every 1% increase in farm size, the likelihood of participating in a TDR or PDR effort increased by about 1.13% (again, PDR programs had a higher potential, with a rise in likelihood of 1.34%). For any program, a farm at least about 115 acres in size was necessary to obtain a 50% participation chance (the size of the average participant was 126.84 acres). Demographically, participation rates were higher if the farmer had a child who wanted to continue farming (28% of participants had such a child, compared to 12% of non-participants). Farms that were a primary source of income for the family were also somewhat more likely to participate, as 40% of participants received more than a quarter of their income from their agricultural operations. By contrast, 85% of non-participants received less than 25% of their income from farming. Factors such as the education level of the farmer, the presence of any prime soils, and whether the farmer received any income from renting did not influence participation rates. Lynch and Lovell suggest that, even though farmers closer to urban areas are less likely to participate, community members in such areas often value the presence of agricultural operations. The authors recommend that “The programs need to pay a premium for proximity to urban centers or design the payment as a declining function of business” (Lynch & Lovell, 2003, p.274). Lynch and Lovell also propose that “the counties and the state might work together to increase agricultural productivity and returns so that more farm children will decide to continue farming” (Lynch & Lovell, 2003, p.275), thereby encouraging more farmers to participate in the protection programs.
Although Lynch and Lovell put forward a number of factors that influence the decision to enroll in a TDR/PDR program, they do not analyze the factors of the programs themselves that allow them to be successful. However this issue is addressed in a 2008 study by Pruetz and Standridge. Noting that “TDR has not yet lived up to the expectations of many in the planning profession” (Pruetz & Strandridge, 2009, p.78), the authors sought to identify the elements of an effective TDR. Pruetz and Standridge looked at 20 studies which have studied this issue, ultimately identifying 55 different factors and picking the ten which appear in at least five of the papers. The authors then looked at 20 TDR programs which have preserved the greatest amount of land nationwide, noting how many of the ten factors appeared in the language for each of these programs. The 20 programs themselves are largely diverse: they protect between 91,500 and 2,272 acres, protect an average of 9,150 to 126 acres per year, and represent nine states (including California). The two most popular factors appear in all 20 jurisdictions; the first of which is a demand for bonus density. As the authors emphasize, “For TDR to work, the extra density that developers get when they buy TDRs must be something that they actually want” (Pruetz & Standridge, 2008, p.80) without the jurisdiction intentionally downzoning the receiving areas in an attempt to create demand for TDR credits. Related to this, successful TDR programs often give developers additional bonuses, such as being able to build bonus units in addition to the extra units allowed by the TDR credits, or exemptions from certain building permit quotas. The second factor found in all 20 programs is receiving areas that are specifically customized to meet community needs. While the authors do suggest that receiving areas be already-developed areas, they note that some county programs have been successful in using receiving areas to build new towns. 16 of the 20 programs have receiving areas within their boundaries, while four others permit inter-jurisdictional transfers (typically sending areas are unincorporated land, while receiving areas are inside city boundaries).
The third factor, present in 18 of the programs, is a fairly strict zoning code or set of other regulations that restricts land use within the sending area. Pruetz and Strandridge note that these statutes must be limiting enough to minimize the potential development value, as a high development value for the land would drive up the cost of TDR credits beyond a practical level. The authors define “strict” as prohibiting densities greater than one dwelling unit per five acres, although they caution that this is a rough threshold and will vary with each jurisdiction. Fourthly, there must be few (or no) alternatives to achieve additional development. This factor, found in 17 of the surveyed jurisdictions, means that developers cannot turn to less expensive measures as a way of obtaining bonus units (or at least they should have relatively few other options). If developers have little or no means of building extra units, then TDR becomes more appealing despite the cost. Lastly the fifth factor, present in 15 of the 20 TDR programs, are market incentives such as transfer ratios and conversion factors that make the TDR credits more valuable. For example, TDR credits obtained from protecting a piece of land that can be used for two units under existing zoning can be used to build four additional units in the receiving zone. Under these systems, TDR credits can also be transferred into increases in floor area, height, lot coverage, etc. The other five factors identified by Pruetz and Strandridge are ensuring that developers will be able to use the TDR program, strong public support for preservation, ease of use, promotion and facilitation of the TDR program, and a TDR bank that can effectively manage the credits. The presence or absence of each of these factors in the 20 jurisdictions is noted in Tables 8a and 8b.

One criticism of TDR/PDR programs is that farmers who participate in these efforts can see the value of their land decrease dramatically because the potential use is now restricted. While this can be beneficial for property and estate tax purposes, some have suggested that it may have other negative implications (for example, farmers may be less likely to enroll if they feel the value of their land will significantly decline). Nickerson and Lynch addressed this question in a 2001 study, looking at “whether the
development restrictions imposed by permanent PDR/TDR preservation programs significantly reduce the restricted parcels’ value” (Nickerson & Lynch, 2001, p.342). The authors looked at 224 parcels in Maryland’s Carroll, Calvert, and Howard Counties that had been sold between January of 1994 and August of 1997. 200 of these parcels were unprotected and the remaining 24 were preserved through a PDR/TDR program. While the unprotected parcels did have an average higher per-acre value ($8,998 compared to $3,761 for the preserved parcels), Nickerson and Lynch believe that other factors explain this disparity. The authors conclude that, “contrary to our expectations, we find little statistical evidence that voluntary permanent preservation programs significantly decrease the price of farmland” (Nickerson & Lynch, 2001, p.350). Nickerson and Lynch do raise the possibility that the relatively limited nature of the sample may have affected the results, but state that they could not find any evidence of a selectivity bias.
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<sup>4</sup> Collier County, FL has two separate TDR programs.
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Adapted from Tables 2 and 3, Pruetz & Strandridge, 2008, p.74 & 75
The previous section demonstrated the economic benefits of agritourism and other forms of agricultural diversification for both the farm itself and the wider community. In order to cultivate these sorts of operations, it is necessary for a county or city to permit such uses in its zoning code, and to make them relatively easy to establish. The draft community plan for Eastern Goleta Valley identifies bed and breakfasts, equestrian facilities, farm stands, and small retail outlets for local goods as four examples of agritourism opportunities that would be appropriate for the area (County of Santa Barbara, 2010). Wineries, while not mentioned in the community plan, could also provide a significant agritourism benefit. In order to create a new zoning designation that allows for agritourism, it is useful to examine the zoning code of counties which have had a great deal of success in this field. The University of California’s California Agricultural Tourism Directory maintains a list of agritourism destinations by both county and the type of activities they provide. According to this self-reported directory, California has 725 agritourism facilities. San Diego County has 92, more than twice the number of the second highest: El Dorado County, with 44. Coming in third, fourth, and fifth, respectively, are Lake County (42), San Luis Obispo County (41), and Sonoma County (35). Santa Barbara County is tied for 16th with Merced and Los Angeles Counties (all three have 14 agritourism operations). Five of California’s 58 counties (Lassen, Tehama, Sierra, San Benito, and Imperial) have no agritourism destinations (California Agricultural Tourism Directory, n.d.). Map 5 shows agritourism by county in California.

This section examines the zoning code of the top five agritourism counties in California, noting which zoning districts have an agricultural and/or rural focus and would therefore be somewhat applicable to Eastern Goleta Valley. This section then looks at the five agritourism operations mentioned previously (bed and breakfasts, wineries, equestrian facilities, farm stands, and sales of local craft goods) to see how easy (or
difficult) it is to establish such a facility in the agricultural zoning districts with the county’s statute. The regulations examined in this section address factors such as permits, building size and design, setbacks, hours of operation, and intensity of use (among others). Map 6 shows these counties.

As it is a significantly lower priority for Santa Barbara County, an example of a successful TDR program will be examined at the end of this section.

San Diego County

With 92 self-reported agritourism destinations, San Diego County is home to nearly 13% of the state’s total agritourism operations. In 2009, the value of the county’s agricultural sector was over $1.5 billion. Ornamental trees and shrubs, indoor plants, and plants intended for flowerbeds combined made up 56% of the value; avocados and tomatoes were the fourth and fifth most valuable crops, respectively (County of San Diego, 2010a).

San Diego County has four agricultural/rural zoning designations:

- RR (Residential Rural): Agricultural uses combined with large-lot homes.
- S92 (General Rural): Environmentally-constrained land intended for sparse, low-intensity development.
- A70 (Limited Agriculture): Growing crops.
- A72 (General Agriculture): Growing crops, raising livestock, and other high-intensity agricultural uses.

Bed and Breakfast: There are two self-reported agritourist bed and breakfasts in San Diego County (California Agricultural Tourism Directory, n.d.). A bed and breakfast
operation on unincorporated land in San Diego County is subject to the following regulations. An example of these operations is shown in Figure 11.

- A Minor Use Permit is required.

- The building must be located in a historic district or have been constructed before 1936. If neither of these conditions apply, the building must be in an RR, S92, A70, or A72 zone (in addition to a few others not relevant to this discussion). The bed and breakfast can only have up to five guest rooms unless the County has designated it as a historic building.

- The lot cannot be within 500 feet (as the crow flies) of any other lot containing a bed and breakfast.

- The owner or lessee of the lot has to live on the property (although not necessarily in the bed and breakfast itself). If the owner/lessee lives in a separate structure, there must be after-hour contact information posted in each guest room.

- There must be one off-street parking space for each employee and each guest room, in addition to the parking requirements for a single-family house (which requires two spaces per unit).

- The facility can only rent rooms and provide a breakfast for overnight guests. Guests cannot prepare food in their rooms.

Figure 11: The three-room Blue Heron Farm bed and breakfast near Bonsall (Blue Heron Farm Bed and Breakfast, 2009).
• There can only be one sign on the property, which cannot be bigger than two square feet.

• The appropriate agencies must certify that the building’s water and sewer infrastructure is capable of meeting the needs of a bed and breakfast operation.

The main access to the bed and breakfast has to be on a publicly maintained road (County of San Diego, 2003) (County of San Diego, 2010b)

**Wineries:** There is one self-reported winery as an agritourism destination in San Diego County (California Agricultural Tourism Directory, n.d.). The following regulations apply.

• San Diego County specifies three types of wineries that can serve as agritourism destinations: general wineries (bottling more than 120,000 gallons per year), small wineries (bottling less than 120,000 gallons yearly), and boutique wineries (bottling less than 12,000 gallons per year, and illustrated in Figure 12). All three types allow a tasting room and retail sales as secondary uses. Wineries bottling less than 12,000 gallons yearly may be classified as a small winery instead of a boutique winery, which requires additional permitting but is less restricted in allowable activities.

![Figure 12: The vineyards of the Orfila Winery, a boutique winery in Escondido (NoellID66, 2010).](image)
- General wineries are only permitted by right in the county’s five industrial land use zones. They are also allowed in RR and S92 zones, although a conditional use permit is required. Small wineries require an administrative permit, but can locate anywhere if they are compatible with the neighborhood character and will not overuse the local infrastructure. The county’s zoning code does not set any land use or permitting requirements for boutique wineries.

- Boutique wineries have to grow at least 25% of the fruit used in winemaking on the premises and 75% of the fruit must be grown in San Diego County. Small wineries also must grow at least 25% of their fruit on-site, but only 50% has to come from within the county.

- Both boutique and small wineries can sell pre-packaged food and hold catered events, but food preparation cannot be held at the winery.

- Events such as weddings may be held at small wineries, but not boutique wineries.

- A number of additional restrictions apply to boutique wineries. Tasting rooms can only operate between 10 am and “legal sunset” and cannot have amplified sound. The driveway must be paved with a minimum of six parking spaces for customers and three for employees; furthermore the winery cannot allow any vehicles with more than 12 people. Any outdoor areas cannot have more than 5 tables and seating for more than 20 people. Production and storage facilities for wine are limited to 1,000 – 7,000 square feet (depending on the size of the lot), and any tasting room or retail sales area cannot be more than 30% of the wine production space.

- Other than the necessary permitting process, no restrictions exist on general wineries.
**Equestrian Facilities:** There are no self-reported agritourism stables or other equestrian facilities in San Diego County (California Agricultural Tourism Directory, n.d.), perhaps due to the convoluted and often confusing nature of the zoning regulations on this topic.

- San Diego County does not define public stables, riding schools, and related equestrian facilities as a separate use; rather they are treated as an Animal Raising use.

- Public stables are permitted by right, or allowed with a zoning permit or with a use permit, depending on a variety of conditions such as the age of the legal parcel and a range of potential setbacks. The zoning code is intricate and not particularly clear, but it appears as though such uses are only allowed in the A72 district.

**Farm Stalls:** Given the size of San Diego County’s agricultural sector, it is not surprising that there are 63 farm stalls and other direct marketing destinations in the county, more than the number of total agritourism sites in every other county. The types of products available are very broad, including persimmons, macadamia nuts, rare citrus, and an aquaponic farm that raises tilapia and various produce (California Agricultural Tourism Directory, n.d.). A more atypical farm stall is shown in Figure 13.

- Roadside farm stands are treated as an accessory use in agricultural/rural

![Figure 13: Orchids for sale at the Cal-Pacific Orchid Farm near Encinitas (Cal-Pacific Orchid Farm, n.d.)](image)
zones. In general in San Diego County, accessory uses may be permitted by right or allowed with an administrative permit, but the zoning is not clear which of these applies to roadside stands.

- They are allowed in the S92, A70, and A72 zones regardless of lot size, as well as on lots with RR zoning that are one acre or larger.

The stand must be located at least 15 feet from the street and be no larger than 300 square feet (the ordinance explicitly bans selling produce from a vehicle).

- Stands can only be operated by the owner or lessee of the land they are located on.

- Farm stalls can sell produce grown on the land they are located on, or on other parcels owned or leased by the operators. They can also sell ornamental plants (but only those grown on-site), and “items related to the sale or use of agricultural products” (County of San Diego, 2010b, p.6-26) as long as such items do not take up more than 10% of the area of the stand.

**Local Craft Goods:** San Diego County has 16 agritourism facilities which sell local artisan goods (California Agricultural Tourism Directory, n.d.). However, it appears as though these facilities are grandfathered in from a previous zoning ordinance, only sell craft goods as a small portion of their sales or make them from materials grown on-site (allowing them to be sold from farm stands), or otherwise operate under some exemption which is not apparent. Retail sale of artisan goods is classified as a Special Retail Sales use under the County zoning code; such uses are not allowed in the four rural/agricultural zones.

**El Dorado County**

Ranking second in agritourism with 44 self-reported facilities is El Dorado County, spanning the area between Sacramento and Lake Tahoe in northern California. In stark contrast to San Diego County’s $1.5 billion agricultural sector,
El Dorado County’s is a much more modest $37.4 million. The major types of produce grown in the county are wine grapes, apples, and pears; the county also has fairly extensive hay, cattle, and timber operations (County of El Dorado, 2010a).

El Dorado County has nine zoning districts that could support agritourism operations.

- **RA (Residential Agriculture):** Agriculture combined with large-lot homes (20 to 160 acres).
- **A (Agricultural):** General agricultural and agriculturally-related activities.
- **AE (Exclusive Agriculture):** Agricultural land under Williamson Act contract.
- **PA (Planned Agricultural):** Agricultural operations planned and laid out in a specific manner (similar to a Planned Urban Development, or PUD, for agricultural uses).
- **SA (Select Agricultural):** Limited, lower-intensity agriculture and related uses.
- **AP (Agricultural Preserve):** Agricultural land under Williamson Act contract. Slightly less-restrictive than AE (also allows for ranch marketing and winery facilities, which AE does not).
- **TPZ (Timberland Preserve Zone):** Timber forest, timber harvesting and production, and related uses.
- **MR (Mineral Resources):** Mineral extraction and processing, and related uses.
- **RF (Recreational Facilities):** Recreational and related uses.
**Bed and Breakfasts:** There are two agritourism bed and breakfasts in El Dorado County (California Agricultural Tourism Directory, n.d.), subject to the following regulations.

- A bed and breakfast can have up to 20 rooms (although those with five or less rooms are subject to less rigorous building codes).

Bed and breakfasts are permitted in commercial zones by right. In residential and agricultural zones they are considered an “expanded home occupation” and require a special use permit. Additionally, a bed and breakfast in certain agricultural zones must be reviewed by the County Agricultural Commissioner to ensure the use is compatible with surrounding land uses.

- The property owner must reside on-site.

- Only registered guests can be given meals, which are limited to breakfast and “light snacks”.

- The bed and breakfast is allowed one sign, which cannot be internally lit. The size of the sign is governed by the zoning district.

- There must be one parking space for each guest room, plus two for residents. Parking cannot be located in a front or side setback.
• The special use permit can allow events such as weddings and reception. Temporary use permits can be issued for specific events if they are not permitted by the special use permit.

**Wineries:** Wineries are a popular agritourism destination in the county, with the El Dorado Winery Association reporting 32 members (El Dorado Winery Association, n.d.). The following regulations apply.

• Wineries are permitted by right with AE, PA, and SA zoning on lots at least 20 acres, and with AE, PA, and SA zoning on lots between 10 and 20 acres in an Agricultural District (as specified by the general plan). They are allowed with a conditional use permit on 10 – 20 acre lots with AE, PA, and SA zoning outside of a Agricultural District, on 10-acre or greater lots in RA zoning districts not in a Agricultural District, and on lots at least 10 acres in AP zoning districts.

• Wineries are permitted to host special events, as illustrated in Figure 15, but can only be held on 48 days per year if at least 50 people are participating (events with less than 50 attendants do not count toward this quota). Events where the facilities are rented out can only occur on 12 or 24 days a year, depending on the size of the lot. A maximum of 250 people can attend events.

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**Figure 15. A wedding carriage at the Gold Hill Vineyard in El Dorado County (Gold Hill Vineyard, 2009).**
• Restaurants, museums, picnic areas, and retail sales are all allowable as long as they are accessory uses to the winery. A kitchen used to prepare food for catering off-site events is allowed with a conditional use permit.

• Winery buildings cannot cover more than 5 acres or 50% of the lot area, whichever is less. There are additional size restrictions depending on the size of the lot.

• Wineries must have 1 parking space for every 300 square foot of floor space.

• Wineries can install unlit signs that are up to 32 square feet per side, in addition to small directional signs. Other signs may be allowed by administrative or conditional use permit.

• Wineries with less than 5 acres of vineyards are designed as “micro-wineries” and are subject to more strenuous regulations. They are allowed by conditional use permit only, in RA, AW, PA, SA, AE, and AP zones. Such facilities must be on a lot of at least 5 acres, which must have at least 1 acre of grapes growing on it with a minimum of 440 vines, and the building cannot be more than 2,000 square feet. They cannot have any on-site tasting or sales, accessory uses that are allowed for larger wineries, or indeed any public access at all. Micro-wineries cannot have a production capacity greater than 595 gallons per acre of on-site vineyards, with a maximum capacity of 2,972 gallons. Their signs are limited to six square feet and must state that the micro-winery is not open to the public.

**Equestrian Facilities:** There is one agritourism equestrian facility in El Dorado County (California Agricultural Tourism Directory, n.d.). As with direct sales, the county is not particularly restrictive of horse stables and ranches.

• Equestrian facilities are permitted by right in the RA, agricultural (AE, PA, SA, and AP), and RF zones. Parcels with these facilities must be at least 10 acres in
size (although exceptions can be granted). Horseback riding during the day is permitted in TPZ zones, but the facilities themselves are not.

- Equestrian facilities must usually be set back between 50 and 200 feet, depending on the size of the parcel, the time of the parcel’s legal creation, and the zoning of the parcel or adjacent lots. In specific instances, small parcels are exempt from these setback requirements.

**Farm Stands:** The on-site selling of produce is very popular in El Dorado County, with 28 of the 44 agritourism sites in the county operating a farm stall or U-pick operation, as shown in Figure 16. (California Agricultural Tourism Directory, n.d.). The county encourages such operations, as detailed in its zoning code.

- In RA, MR, and RF zones, the ability to process agricultural goods grown on-site (as long as the nature of the goods is not changed) and to sell the products on the lot is permitted by right.

- AE, PA, SA, and AP zones enjoy the same rights on this issue as RA/MR/RF zones. In addition, they are allowed to process and sell goods grown off-site, as long as they were grown in conjunction with on-site produce. Such operations cannot be within 100 feet of a non-compatible use (e.g. a school or playground).

Such operations are allowed to establish a sign to advertise their business. In RA zones the signs must be unlit, no more than 12 feet above the ground, and no more than 12
square feet per side. In AP zones these signs can be no bigger than 16 square feet per face. In AE, AP, and SA zones, the signs can be up to 32 square feet per face. There does not appear to be any policies governing signs in MR or RF zones.

**Local Craft Goods:** El Dorado County has various policies for non-agricultural goods sold in agriculturally-focused zones.

- While all agricultural and residential-agricultural zones allow certain home occupations by right without any permitting, including what the county defines as “handicrafts”, the zoning code is unclear as to whether the goods can be sold on the premises. However the manufacture of such goods is clearly permitted, provided that it does not because a traffic problem, is carried out in the main building on the property by a resident, and that any display is not visible from outside the property. The code is very clear in allowing “instruction” (which presumably would include activities such as class lessons) as long as the groups are no bigger than four people.

- If a home occupation requires “special consideration” such as accessory structures or power tools, it is allowed with a special use permit in all agricultural and residential-agricultural zones as long as does not substantially change the character of the neighborhood. Selling of local craft goods would likely require such an accessory structure; as such this seems to be the more likely set of regulations.

- The clearest set of regulations on this matter are included in a set of regulations governing what the county calls “Ranch Marketing”, intended to “provide for the development of ranch marketing activities to encourage the economic development of agricultural and tourism industries while regulating such uses to protect the public health, safety, and welfare…” (County of El Dorado, 2010b, p.38).
Ranch marketing activities include the sale of “handicrafts and agricultural promotional items produced on-site or off-site” (County of El Dorado, 2010b, p.38). This use also allows for a display and sale area for goods that do not qualify as “handicrafts”, which is for “the retail sale of agricultural related promotional items, gift items, and/or pre-packaged goods” (County of El Dorado, 2010b, p.38). This area is allowed by right to be up to 500 square feet, although it can be up to 1,000 square feet with a site plan review and larger than 1,000 square feet with a special use permit. Vendors must have a business license.

These ranch marketing areas have specific parking criteria for each use. For the craft sales, there must be a bare minimum of 3 spaces plus 1 space per 200 square feet of sales area.

Facilities that do not meet all required criteria may still be allowed to operate with a special use permit.

Ranch marketing can occur by right in AE, PA, and SA zones, and with a special use permit in AP zones. Parcels must be at least 10 acres in size, with at least 5 acres in permanent crop production or 10 acres in annual production (with certain limitations). The crops must be maintained or the ranch marketing designation becomes void.

Lake County

Lake County is located in northern California, between the counties of Napa and Mendocino, with an economy that has been historically centered on agriculture. The most recently available crop report, from 2005, places the value of the county’s produce at over $61 million. Wine grapes, both red and white, form the majority of this with a value of about $38 million (nearly half of which comes from Cabernet Sauvignon grapes). Pears,
with a value close to $13 million, are the county’s second most important agricultural product; other important goods include cattle and walnuts (County of Lake, 2006). Given the importance of its agriculture-based economy, the county has aggressively promoted itself as a center for agritourism. Forty-two businesses have self-reported themselves as agritourism destinations (California Agricultural Tourism Directory, n.d.) while the county’s agricultural organization lists 45 separate operations (County of Lake, n.d.).

Lake County has five zoning districts that can be used for agritourism operations.

- APZ (Agricultural Preserve): Agricultural lands to be protected from development, in conjunction with Williamson Act protection.
- A (Agricultural): General agriculture with limited or no development.
- TPZ (Timberland Preserve): Timber forest, timber harvesting and processing, and related activities.
- RL (Rural Lands): Allows for a variety of uses on remote land with limited access.
- RR (Rural Residential): Single-family residences and limited agriculture in rural areas.

**Bed and Breakfasts:** Despite the popularity of agritourism, Lake County does not have any agriculturally-focused bed and breakfasts (County of Lake, n.d.). This could perhaps be reflective of the relatively strict regulatory framework that bed and breakfasts must operate in.

- Lake County recognizes two distinct categories: a bed and breakfast, which is strictly an accessory use and can only have up to two guest rooms; and a bed and breakfast inn, which can be an accessory or primary use and has between three and eight guest rooms.
• A bed and breakfast requires a zoning permit. Of the county’s five zoning districts with agricultural character bed and breakfasts are allowed in all but the TPZ zoning district. A bed and breakfast inn can be located in A, RL, and RR zoning districts, but must obtain a minor use permit.

• Bed and breakfasts must be located in a primary building, such as a residence, and cannot be in any accessory structure. While such buildings can be expanded, they cannot be increased by more than 15% of their original size for the sake of adding a bed and breakfast. A bed and breakfast inn cannot be in any accessory structure, but there are no limits on size.

• Zoning permits for a bed and breakfast expire after five years and must be renewed if the bed and breakfast is to be maintained. Permits on a bed and breakfast inn do not expire.

• Bed and breakfasts cannot have cooking facilities in guest rooms and are only allowed to serve a continental breakfast. They cannot serve food to visitors not staying in the rooms. Bed and breakfast inns also cannot provide guests with cooking facilities, but they are allowed to serve other meals.

• Bed and breakfasts can only have one sign, which cannot be larger than three square feet, and cannot be directly illuminated. The signs of bed and breakfast inns are limited to six square feet and cannot be directly illuminated.

• Bed and breakfast inns are allowed to host special events, but only if such events are specifically authorized in their use permit.

• No guests at a bed and breakfast inn can stay longer than 14 days. Bed and breakfast inns are also required to have smoke detectors and evacuation plans in each guestroom, and a fire extinguisher in the building.
**Wineries:** With the productivity of the county’s wine grapes industry, it is not surprising that Lake County’s zoning is comparatively unrestrictive when it comes to wineries in contrast to bed and breakfasts. There are seven winery facilities identified in the county (County of Lake, n.d.), one of which is illustrated in Figure 17.

- As with San Diego, Lake County sorts wineries into different categories: small wineries (bottling up to 15,000 cases per year) with accessory uses, small wineries without accessory uses, and large wineries (no distinction is made between those with and without accessory uses). Accessory uses for wineries are tasting rooms, as well as retail sales of wine and wine-related goods (e.g. corkscrews, packaged food, etc.).

- Depending on the type of winery and the zoning, either a major or minor use permit is required.
  - The APZ zone allows small wineries without accessory uses with a minor use permit. A major use permit is required for large wineries, or small wineries with accessory uses.
  - The A and RL zones require a minor use permit for any small winery (with or without accessory uses), and a major use permit for large wineries.

![Figure 17: A group of Sauvignon Blanc grapes at the Shannon Ridge winery in Lake County (Shannon Ridge Vineyards & Winery, n.d.)](image)
RR zones require a major use permit for any winery, regardless of size or accessory uses.

- The zoning ordinance does not define any further standards; presumably they are determined on a case-by-case basis.

**Equestrian Facilities:** There is one identified commercial stable in Lake County that qualifies as an agritourism venue (County of Lake, n.d.).

- Commercial stables and riding facilities are allowed, with a minor use permit, in A, TPZ, and RL zones. Such facilities require a major use permit in RR zones, and are not permitted in APZ zones.

- Equestrian facilities cannot be located on parcel smaller than 10 acres in RR zones. No such restrictions exist in other zones.

- For parking, equestrian facilities are required either one space per horse stall or one space for every three horses, whichever is greater.

- Further standards, as with wineries, are likely to be specific to each applicant.

**Farm Stalls:** Direct sale operations make up the majority of Lake County’s agritourism facilities, with 22 of the county’s self-reported 42 destinations. In addition to pears and walnuts, these farms also sell more uncommon products such as fresh eggs, figs, goat-milk cheese, and buffalo meat (California Agricultural Tourism Directory). The county is very unrestricted on these uses.

- Any stand “for the display and sale of agricultural products” (County of Lake, 2005, p.4-1) is permitted by right in APZ, A, RL, and RR zoning districts as long as they are 400 square feet or smaller. Larger structures are allowed with a minor use permit in APZ, A, and RL zones. Although productive agriculture is allowed in TPZ zones, produce stands are not.
• There can only be one stand per lot, and they may not be permanent (e.g. with a permanent foundation).

• Farm stalls are only allowed to sell “sell fruits, vegetables, nuts and cut flowers grown on the same lot or on other lots in the County; and may sell other agricultural products produced in the County such as eggs, honey or beeswax” (County of Lake, 2005, p.27-14), as well as any ornamental plants grown on the lot.

• They must be set back at least 30 feet from the road, with this setback being used for off-street parking.

• Farm stalls can have two non-illuminated single-faced signs, which may not be wider than 4 feet in width or height.

**Local Craft Goods:** Lake County is somewhat limiting with the sale of local craft goods in agriculturally-focused areas, as the regulations governing farm stalls (as discussed above) prohibit the sale of goods not explicitly mentioned as permissible. For agricultural areas, the only way to sell artisan goods is through cottage industries, as outlined in the regulations below.

• Cottage industries, defined as “a small-scale commercial or manufacturing activity on low-density agricultural or residential property accessory to the residential use of the parcel” (County of Lake, 2005, p.27-31) are allowed with a minor use permit in A, RL, and RR zones, as long as they do not affect the rural character of the area. They are not permitted in APZ or TPZ zones.

• The range of permissible cottage industries is quite broad (including woodworking, arts and crafts, pottery, jewelry, and food preparation). These activities must be conducted in an enclosed building and cannot use up more than 1,200 square feet of space.
• Cottage industries are not allowed to sell any goods not produced on-site. Sales of goods produced on-site must be “primarily by appointment” (County of Lake, 2005, p.27-32) and there can be no more than eight customers or students on the premises at any one time.

• Commercial pick-ups and deliveries are limited to no more than 10 times per week.

• The cottage industry has to be primarily conducted by the residents of the property, although it can employ one or two non-residents.

• Parking for cottage industries requires only one space for customers, plus one for each employee (the zoning code is not clear if this applies to all employees or just non-resident employees).

• Signs for cottage industries are limited to four square feet and cannot be directly illuminated.

San Luis Obispo County

Ranked fourth in agritourism in the state, with its 41 self-reported facilities running close behind Lake County’s 42 (California Agricultural Tourism Directory), San Luis Obispo County is the largest agritourism destination between San Diego County and the agricultural regions of Northern California. The county’s agricultural sector had a 2008 value of over $606 million with wine grapes making up the largest segment (about $124 million). Broccoli (close to $71 million), strawberries ($65.5 million) and cattle ($50 million) comprised the other major pieces of the county’s agricultural production (County of San Luis Obispo, 2009a).
San Luis Obispo has three zones suitable for agritourism. Note that San Luis Obispo County is a coastal jurisdiction, and regulations may be different for parcels within the coastal zone.

- **AL (Agricultural Lands):** General agricultural operations and related uses.
- **RL (Rural Lands):** Allows for a variety of land uses on remote land with limited access and environmental constraints.
- **RR (Rural Residential):** Residential and other land uses on remote land with limited access and environmental constraints.

**Bed and Breakfast:** San Luis Obispo County’s agritourism sector has two bed and breakfasts, both located in the vineyards near the city of Paso Robles (California Agricultural Tourism Directory).

- The County recognizes two categories of bed and breakfasts: those with three or less rooms, and those with between four and eight (such as the one in Figure 18). Smaller bed and breakfasts are allowed with a zoning clearance (or with a Plot Plan approval in the coastal zone), while larger bed and breakfasts require a Minor Use Permit. Any bed and breakfast that serves food to residents must also obtain a health permit.

- Both categories of bed and breakfast may be built in the RL and RR zoning districts. Bed and breakfasts may also be built in AL districts, but for AL districts within the coastal zone they may not be built on prime soils.

Figure 18: One of the guest rooms at the Just Inn outside of Paso Robles (Justin Vineyards & Winery, n.d.)
• Bed and breakfasts may normally only be located in existing single-family buildings that are deemed to have historical or architectural interests. However in the AL, RR, and RR zones on plots with existing “visitor-serving facilities”, a bed and breakfast may be established in a new building specifically built for this purpose. Doing so requires a Conditional Use Permit (or a Minor Use Permit in the coastal zone) and the bed and breakfast must be incidental to the existing uses (only applies outside of the coastal zone).

• All smaller bed and breakfasts (three rooms or less) must be an accessory use to the single-family dwelling (except for those operating under the AL/RL/RR exemption).

Any expansion of a single-family residence to accommodate a bed and breakfast can be no larger than 15% of the existing building.

• For most bed and breakfasts in rural areas, they must be located on plots at least one acre in size. For bed and breakfasts operating under the AL/RL/RR exemption outside of the coastal zone, the plot must be at least 10 acres. Such bed and breakfasts cannot be within 500 feet of any other parcel with a bed and breakfast on it, within 200 feet of a property line, further than five miles from a urban area or village reserve line, and further than one mile from an arterial or collector road.

• Bed and breakfasts must have a minimum of two parking spaces, plus one space per room.

Wineries: The wine industry is a major driving force of the San Luis Obispo County economy. The five self-reported facilities (California Agricultural Tourism Directory) hardly scratches the surface; trade industry groups report 111 wineries in the county with many more non-member wineries besides (WineCountry.com, n.d.). Not surprisingly, winery regulations are relatively loose. Examples of wineries are shown in Figure 19.
The County distinguishes between wineries, which process grapes on-site (and which may or may not have a tasting room) and are treated as Agricultural Processing facilities; and tasting rooms on a separate parcel from the wine production, which are treated as a Food and Beverage Retail Sales use. Separate tasting rooms are generally not permitted in rural areas.

Within the coastal zone, wineries are allowed (and encouraged as a priority use) in AL, RL, and RR zones (even on prime soils). The permit required depends on the size of the facility: facilities less than 10,000 square feet that are not appealable to the California Coastal Commission only need a Plot Plan approval\(^5\); wineries between 10,000 and 39,999 square feet, or those smaller than 10,000 square feet that are appealable to the Coastal Commission, require a Minor Permit.\(^5\)

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\(^5\)The County land use code has an extensive set of criteria defining projects that may be appealed to the California Coastal Commission. Generally such projects are those which may impact sensitive environmental or archaeological areas, recreational/scenic/tourism locations, affordable housing, or beach access. A full list is available on page 1-15 of the Coastal Land Use Ordinance of the San Luis Obispo County Code.
Use Permit; facilities larger than 40,000 square feet require Development Plan approval.

- Outside of the coastal zone, wineries are allowed AL, RL, and RR zones with a minor use permit (or if the winery will hold large events, a conditional use permit).

In the coastal zone, wineries that are open to the public must be within one mile of an arterial or collector road, and set back at least 100 feet from the property line in rural areas. Outside of the coastal zone in rural areas, such wineries must be set back 100 feet from the property line and 200 feet from any existing residence on another lot (if the winery is open to the public, these two setbacks increase to a respective 200 feet and 400 feet).

- Signs for wineries can be up to 32 square feet and no more than 10 feet off the ground. Two off-premise directional signs are also allowed.

- Wineries must have one parking space for every 2,000 square feet of active floor space, plus one parking space for every 5,000 square feet of storage. Wineries with tasting rooms also must have one space per 200 square feet of tasting room area.

- Wineries outside of the coastal zone must meet specific design regulations. They must have a design style that is consistent with an agricultural area, screened as necessary to maintain a rural character (any exposed tanks must be screened completely), are subject to lighting regulations, and cannot be more than 35 feet tall (exceptions apply).
• Wineries outside of the coastal zone with an on-site tasting room must have the tasting room within 200 feet of the production facilities (except where site constraints make this difficult). There can only be one tasting room per site.

• Limitations exist for events with more than 50 attendees held at wineries outside of the coastal zone. The minor use permit obtained by most wineries only allows for six events yearly with no more than 80 people; usually to exceed this limit a Conditional Use Permit is required. Generally sites must be at least 20 acres for such events, although this can be waived as a condition of the permit. Amplified music can only be played between 10 am and 5 pm.

**Equestrian facilities:** San Luis Obispo County has five self-reported horse riding and ranching facilities (California Agricultural Tourism Directory, n.d.). They are fairly simple to establish.

• For land in the AL, RL, and RR zones, horses are relatively easy to keep. Up to 30 horses are allowed by right or permitted with a zoning clearance (or plot plan in the coastal zone), depending on the specific zoning and the size of the parcel. However, additional restrictions kick in for facilities designated as “horse ranches or other equestrian facilities”, which means that the site contains “equestrian facilities including boarding stables, riding schools and academies and horse exhibition facilities (for shows or other competitive events)” (County of San Luis Obispo, 2006b, p.4-32).

• Equestrian facilities must be located on parcels at least 10 acres in size (or smaller than 10 acres in the coastal zone with the approval of a Development Plan). Both in and outside of the coastal zone, a minor use permit is required.
• Any equestrian structures must be set back at least 50 feet from the front of the property, and 30 feet from the side and rear. In RL zones, these structures cannot be located within 100 feet of any house not owned by the landowner.

• Equestrian facilities, like other animal operations, must comply with various segments of the County Code that address hygiene, noise, and animal welfare.

• There are no requirements for formal parking spaces on equestrian facilities. Instead, zoning stipulates that enough open land must be set aside for parking.

**Farm stalls:** Farm stalls are very popular in San Luis Obispo County, with more than half of the self-reported agritourism operations engaging in it (California Agricultural Tourism Directory, n.d.). Products range from common to the unique, including such goods as farm-grown loofahs, oallieberries, and one farm that specializes in hydroponically-grown hybrid tea roses. Figure 20 provides an example of such operations.

• San Luis Obispo County distinguishes between permanent and temporary roadside stands. In the coastal zone, they are allowed in AL, RL, and RR zones (except on prime soils in AL zones). A zoning clearance is required for a temporary stand (one in operation for less than 120 days per year), and a minor use permit for a permanent stand. Outside of the coastal zone, a site plan review is required for any farm stand in RR zones.
AL and RL zones require a site plan review for permanent stands and a zoning clearance for temporary stands.

- Farm stalls are generally limited to 500 square feet or less. They can be larger if they obtain a minor use permit.

At least 50% of the agricultural products for sale (this excludes hay, grain, and feed) have to be grown on the parcel where the stall is located, on parcels contiguous to the parcel, or on other parcels owned or leased by the stall’s operator. Agriculturally-related “items” and packaged food cannot make up more than 10% of the total products available for sale.

- Temporary stands must be set back at least 10 feet from the front of the parcel, or 25 feet if parking is in front of the stand. Permanent stands must be set back at least 50 feet. Side and rear setbacks must be at least 30 feet for both stands, and be at least 400 feet from any dwelling not owned by the stall’s operator.

- Temporary stands must have at least three off-street parking spaces; permanent stands are required to have at least five.

- Temporary stands that do not operate for at least 60 continuous days have to be taken down or otherwise be named as permanent stands. Unless changes are made to parking or the stall itself, temporary stands do not need to be re-authorized every time they are constructed (although a building permit is required each time).

**Local craft goods:** Many agritourism venues in San Luis Obispo County sell small locally-produced goods, including soap and alpaca-wool garments (California Agricultural Tourism Directory, n.d.). The county offers two classifications for artisan goods, home occupations and small-scale industry. The definition of “small-scale industry” is quite broad, referring to things such as jewelry and tableware, costumes,
and musical instruments, as well as “artisan and craftsman-type operations which are not home occupations, and which are not secondary to on-site retail sales” (County of San Luis Obispo, 2006b, p.8-65)

- Small-scale industry is allowed with Minor Use Permit in the inland AL and RL zones; however, within the coastal zone, small-scale industry is not allowed on in rural or agricultural zone. Home occupations are permitted in all AL, RL, and RR zones with a zoning clearance.

- There are very few restrictions on small-scale industry operations. They must be clearly secondary and not detrimental to any full-time agricultural/rural use. Such operations also must be conducted indoors or in a screened-off outdoor area.

- Home occupations must be clearly secondary to a residential use, and may not change the character of the house or neighborhood.

- Home occupations are not allowed to display products that can be seen from outside of the property. On-site retail sales are generally limited to two two-day-long periods per year.

- There are no limits to how much space a home occupation may occupy, although such occupations on parcels larger than one acre are allowed to store products outdoors in a screened area. Home occupations generally have to be indoors except as necessary.

- Only people living on the parcel may be employees in any home occupations conducted there. Any occupation that generates noise capable of being heard off-site must restrict its hours of operation to between 7 am and 10 pm.

- There are no parking requirements associated with home occupations, although they may not generate more than 10 trips per day and such trips must “involve
types of vehicles normally associated with a home in a residential neighborhood”
(County of San Luis Obispo, 2006b, p.4-53).

- Home occupations are limited to one sign no larger than two square feet. This sign
cannot be illuminated.

**Sonoma County**

Agritourism in California often suggests the wine country of Napa and Sonoma
Counties, and, given this, it is unsurprising to see where the majority of Sonoma County’s
agricultural productivity comes from. Out of the $653 million value of the county’s
agricultural sector, wine grapes amount for $465 million (primarily Cabernet Sauvignon,
Chardonnay, and Pinot Noir varieties). Dairy and poultry are the second and third largest
products, with respective values of $64.5 and $41 million (County of Sonoma, 2010).

Sonoma County has eight zones that are appropriate for agritourism operations.
Like San Luis Obispo County, parts of Sonoma County are within the coastal zone and
may be subject to different regulations.

- LIA (Land Intensive Agriculture): Permanent agricultural lands with high per-acre
  production.

- LEA (Land Extensive Agriculture): Permanent agricultural lands with lower per-
  acre production.

- DA (Diverse Agriculture): Smaller and part-time farms, in addition to related uses.

- RRD (Resources and Rural Development): Protects a variety of resources (timber
  production, sensitive habitat, agriculture, etc.), plus other very low-intensity uses.

- RRDWA (Resources and Rural Development – Agricultural Preserve):
  Agricultural land under Williamson Act contract.
• AR (Agriculture and Residential): A mix of low-density residences and general agriculture.

• RR (Rural Residential): Low-density residences with limited agriculture.

• AS (Agricultural Services): Commercial activities that support agriculture, plus limited agricultural production.

**Bed and Breakfasts:** There are only two self-reported agricultural bed and breakfast in Sonoma County (California Agricultural Tourism Directory, n.d.), with Figure 21 providing an example. This may be perhaps due to the relatively restricted nature of such operations in the county. The size and necessary permits for bed and breakfast operations are fairly varied across the different rural/agricultural zones, and within or outside of the coastal zone boundary.

• Bed and breakfasts are allowed in LEA, RRD, DA, AR, and RR zones both inside and out of the coastal zone. Outside of the coastal zone, bed and breakfasts cannot be built on land under Williamson Act contract.

• Outside of the coastal zone, a bed and breakfast may have only one guest room with a zoning permit, or up to five rooms.

*Figure 21: The five-room bed and breakfast at the Beltane Ranch in Sonoma County (Beltane Ranch, 2010)*
with a use permit (whether it is a minor use permit or a full conditional use permit is not clear).

Within the coastal zone bed and breakfasts are limited to five rooms with a use permit (there is no option for a one-room inn with a zoning permit). In LEA, DA, and AR zones, within the coastal zone only, the county also permits a larger operation called a country inn, which can have up to 30 rooms. A use permit is required for a country inn, and they must be located east of California State Highway 1 (although Highway 1 runs very close to the shoreline in Sonoma County, so this is not particularly restrictive).

- Within the coastal zone, in RRD and RR zones only, bed and breakfasts must be on a parcel at least 1 acre in size.

- Inland bed and breakfasts with a zoning permit, and bed and breakfasts in the coastal zone, must be located within a single-family residence (no accessory structures permitted). Inland bed and breakfasts with a use permit can have one accessory structure. There can only be up to two rooms in this structure, guest areas cannot exceed more than 640 square feet, and there can be no connection between the guest areas and other parts of the accessory structure. There are no regulations for accessory structures with country inns.

- Bed and breakfasts are not allowed to serve any meal other than breakfast, and it can only be served to overnight guests. Country inns are allowed to serve one meal per day to outside guests, but the number of outside guests plus the number of rooms cannot exceed 30 (i.e. a 25-room country inn can only serve up to 5 outside guests at a time). Outside guests dining at a country inn must have reservations, and there can be no on-site sign advertising that food is offered to outside guests.
• Inland bed and breakfasts cannot interfere with any existing agricultural use on the parcel. Coastal bed and breakfasts in the LEA, DA, and AR zones must be secondary to agricultural uses, and cannot be detrimental to any off-site ag. uses. No such restrictions exist for country inns.

• Bed and breakfasts with a zoning permit cannot have any events (such as weddings, or lawn parties). Bed and breakfasts with a use permit, and country inns, are allowed to hold events if their use permit explicitly grants permission.

• Bed and breakfasts in inland areas cannot play amplified sounds outside, but there is no mentioned of such restrictions for bed and breakfasts or country inns in the coastal zone.

• Bed and breakfasts in the coastal zone must have an owner or operator living on the parcel. Country inns are not subject to this restriction.

**Wineries:** Sonoma County and neighboring Napa County are synonymous with the wine industry. Although only two wineries have registered with the Small Farm Program’s agritourism directory (California Agricultural Tourism Directory, n.d.), trade industry groups report 288 wineries in the county (WineCountry.com). Examples of these wineries are shown in Figure 22.

As with San Luis Obispo County, Sonoma County distinguishes between facilities with on-site grape processing and tasting rooms that lack on-site processing. While there are specific regulations that address tasting rooms, wine production is treated as an “Agricultural Processing” use that is not distinct from other fruit or vegetable processing. However, every rural/agricultural zone that allows wine processing also allows a tasting room. The primary differences occur regarding where the grapes can be grown. There is no difference between policies inside and outside of the coastal zone.
• In the AS districts, wine-processing is allowed with a use permit if the grapes and any other produce are grown in the “local area”. Tasting rooms are permitted by right, but the wine must be produced locally.

• The RRD and RRDWA zones require a use permit for both processing and tasting rooms. The produce being processed must have been grown “on-site or in the immediate area” (County of Sonoma, 2010b), and the wine at the tasting room must be processed on-site. Precisely what qualifies as the “immediate area” is not explained.

• The LIA, LEA, and DA zones also require a use permit for both uses, but only if such uses are secondary to agricultural production (i.e. the growing of crops). Wine processing must use fruit grown “primarily on-site or in the local area”, and the processing must be compatible with the agricultural character of the area without requiring extension of existing sewer or water lines. No definition of
“local area” is given. Tasting rooms can only sell wine that is processed or made from fruit grown in the county.

- There are no regulations addressing size, parking, or other requirements of wine processing and tasting rooms. Presumably such issues would be part of the use permit.

**Equestrian Facilities:** Sonoma County has only one self-reported agritourism horse ranch (California Agricultural Tourism Directory, n.d.). However, such facilities are fairly easy to build.

- Sonoma County explicitly allows one-on-one horseback riding lessons without any sort of commercial facilities, as long as horse boarding requirements are met. Regulations do not change inside the coastal zone.

- Horse boarding is allowed by right in the LIA, LEA, RRD, RRDWA, DA, and AR zones with a zoning permit and no more than five horses per parcel. In the RRD, RRDWA, and AR zones, parcels must be at least two acres. In the LIA, LEA, and DA zones, the operation must satisfy a “local need” and not conflict with agricultural activities.

- RR zones permit horses by right without a permit, with one horse allowed for every 20,000 square feet of land up to five horses per parcel.

- Commercial stables, academies, or other equestrian facilities (necessary for group instruction) are allowed with a use permit in LIA, LEA, RRD, RRDWA, DA, and AR zones. One parking space for every three horses is required. Other regulations vary by case and are covered by the use permit.

**Farm Stalls:** There are 25 farm stalls and similar direct marketing operations in Sonoma County (California Agricultural Tourism Directory, n.d.). As with other counties, the
products available vary and include Asian pears, California native plants, and bonsai trees. Figure 23 demonstrates this variability.

Sonoma County explicitly allows for the “temporary or seasonal sales and promotion and incidental storage of crops which are grown or animals which are raised on the site” (County of Sonoma, 2010b) by right in agricultural areas without a permit. Such uses are permitted in LIA, LEA, DA, RRD, RRDWA, AR, and AS zones, both inside and outside of the coastal zone. There is no specific definition for “temporary or seasonal”. The above-mentioned districts also allow for accessory uses that support agricultural uses, which would presumably include permanent farm stands. Such structures must be built on parcels that are at least 2 acres in size (or the structure must smaller than 120 square feet if the parcel is less than 2 acres).

**Local Crafts**: Several of Sonoma County’s agritourism destinations sell local goods such as bird feeders and scented eye pillows (California Agricultural Tourism Directory, n.d.).

- Sonoma County’s zoning code does not specific regulations for farm crafts or other artisan uses. Instead, it classifies all such activities as home occupations.

- Home occupations are permitted by right, in and outside of the coastal zone, in LIA, LEA, DA, RRD, RRDWA, AR, RR, and AS zones. Outside of the coastal zone, a zoning permit is needed.

- Home occupations must be clearly secondary to the residence and can only be carried out by people living there.
• No modifications can be made to a residence in order to support a residence that are “not customarily found in dwellings” (County of Sonoma, 2010b), and only up to 25% of the residence can be used to support the occupation.

• Home occupations in the RRD coastal and RRDWA coastal zones explicitly must not conflict with agricultural uses. Additional, home occupations in the LIA, LEA, and DA zones (in and outside of the coastal zone) must demonstrate “that the use meets a local need [and] avoids conflict with agricultural activities” (County of Sonoma, 2010b).

• Signs for home occupations are limited to one, no larger than two square feet, and not illuminated.

• No more than eight customers or clients can come to a home occupation per day.

• In addition to home occupations, Sonoma County has a unique clause allowing for the creation of art studios that do not conduct retail or wholesale trade. In the LIA, LEA, DA, and RR zones, an abandoned agriculture building can be turned into an art studio; in the RRD and RRDWA zones it can be any abandoned building. These regulations do not change inside the coastal zone.

Transfer of Development Rights

Although zoning remains the primary tool favored by Santa Barbara County to preserve the urban agriculture of Eastern Goleta Valley, it is also beneficial to examine a successful TDR program to see if there are any applicable lessons. One of the most well-known programs is that of Montgomery County, Maryland, which has been mentioned in some of the literature reviewed in the previous chapter; some protected farmland is illustrated in Figure 24. Located in the Washington DC metropolitan area, this single county is home to 60% of US farmland protected under a TDR program (County of Montgomery, 2006). As one of America’s wealthiest counties and so close
to a major city, Montgomery County faces significant development pressure which at one time was responsible for the development of a large amount of farmland; from 1973 to 1979, 12,268 acres of agricultural land was developed (NRDC, n.d.). To prevent this sort of development from continuing and overwhelming the county’s agricultural sector, Montgomery County established its now-famous TDR program. One of the factors attributed to the success of this program has been the county’s “density multipliers” for TDR credits. Under the county’s restrictive zoning, agricultural property can only have one dwelling per 25 acres, so a developer obtaining credits from a farmer with a 100-acre parcel would normally only be able to build an extra 4 units. However, under the Montgomery County program, these development credits increase by five when applied to a receiving area; instead of 4 extra units in this example, the developer is able to build an additional 20. Incentives of this sort have allowed Montgomery County to build up higher-density neighborhoods in some of the most desirable areas, particularly around the DC-area Metrorail subway/elevated train stations in an effort to create transit-oriented developments (Hanley-Forde et al, 2003). A second and less obvious reason for Montgomery County’s TDR success is that the program is not housed within the county’s planning agency as one might expect. Instead it is run by the Agricultural Services Division of the county’s Department of Economic Development – in other words, by the office that traditionally works the most with the county’s farmers. The staff who work in this office can speak in the same language as the farmers, and are well aware of the economic and environmental

Figure 24: Farmland protected under a TDR program in Montgomery County, MD (Bossi, A., 2008)
concerns that farmers often face; the farmers have often worked with this office before and so there is mutual trust between the government and the growers. This relatively simple organizational placement has played a large role in the success of the county’s TDR program (NRDC, n.d.). In addition to these factors, of the ten factors identified by Pruetz and Strandridge that contribute to a successful TDR program, eight are present in Montgomery County, including all of the top five (Pruetz & Standridge, 2009).
Map 5: Agritourism Sites by County

Data courtesy US Census Bureau, ESRI, and California Agricultural Tourism Directory
Map 6: Agritourism Case Studies

Data courtesy US Census Bureau, ESRI, and California Agricultural Tourism Directory
Contrast these five counties, all agritourism leaders in California, with Santa Barbara County. As previously mentioned, Santa Barbara County is ranked 16th in the state, tied with Los Angeles and Merced Counties. There is no reason why this should be so; it is certainly not due to a lack of agriculture. In 2009, Santa Barbara County’s agriculture sector produced over $1.2 billion in crops, with major crops including broccoli ($149.9 million), wine grapes ($137.4 million), strawberries ($344.4 million), cut flowers ($104 million), and potted plants ($170.3 million) (County of Santa Barbara, 2010b). Moreover, the County is already a significant tourism destination and could likely capitalize on the popularity of agritourism. While one could not blame the relative lack of agritourism entirely on the existing zoning and regulatory framework, an examination of the zoning, similar to the one performed on the zoning of California’s top five agritourism counties, shows that it is certainly not particularly conducive.

Santa Barbara County has two agricultural/rural zoning designations.

- **AG-I (Agricultural 1):** Agricultural uses in urban areas and in county-designated urbanized areas with a minimum lot sizes ranging from 5 to 40 acres. The intent is to support agriculture as a viable land use in developed areas and encourage maximum agricultural productivity and intensities. The urban farmlands of Eastern Goleta Valley are zoned AG-I.

- **AG-II (Agricultural 2):** Appropriate for agricultural uses in rural areas designated by the County Comprehensive Plan with minimum lot sizes varies from 40 to 320 acres. The intent is to preserve large rural agricultural parcels for long-term agricultural uses with fewer conflicts with urban development.

**Bed and Breakfast:** None of the 14 self-reported agritourism facilities in Santa Barbara County are bed and breakfasts (California Agricultural Tourism Directory, n.d.) for
the simple reason that they are not an allowed use in agricultural zones. The County conditionally permits two types of lodging in agricultural zones: guest ranches (only allowed in AG-II zones) and hostels (allowed in AG-I and AG-II zones only outside of the coastal zone). The County lacks any specific regulations that address bed and breakfasts.

**Wineries:** Santa Barbara County has only one winery that reports as an agritourism destination (California Agricultural Tourism Directory, n.d.), but industry groups report that at least 77 wineries operate in Santa Barbara County (WineCountry.com), examples of which are shown in Figure 25. The County considers a winery to be a facility where wine processing occurs, with a tasting room as an accessory use.

- Wineries are allowed with various permits in the AG-I and AG-II zones outside of the coastal zone, depending on specific criteria (see Table 9 below), and with a Conditional Use Permit in the AG-II zone within the coastal zone. They are not allowed in the coastal AG-I area.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Land Use Permit</th>
<th>Development Plan</th>
<th>Conditional Use Permit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vineyard size</td>
<td>2 acres per 1,000 cases annually</td>
<td>1 acre per 1,000 cases annually</td>
<td>0.5 acres per 1,000 cases annually</td>
</tr>
<tr>
<td>Annual production</td>
<td>20,000 cases annually or less</td>
<td>50,000 cases annually or less</td>
<td>No limit</td>
</tr>
<tr>
<td>Tasting room</td>
<td>Not allowed</td>
<td>Allowed</td>
<td>Allowed</td>
</tr>
<tr>
<td>Winery size</td>
<td>20,000 square feet or less</td>
<td>20,000 square feet or less</td>
<td>No limit</td>
</tr>
<tr>
<td>Open to general public</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Special events</td>
<td>4 per year, no more than 150 guests</td>
<td>8 per year, no more than 150 guests</td>
<td>12 per year, no more than 200 guests</td>
</tr>
</tbody>
</table>

6 For development plan wineries with a tasting room, the tasting room cannot be larger than 400 square feet or 10% of the winery floor area (whichever is greater).

7 More events and/or greater attendance may be allowed if in compliance with the CUP.
Adapted from Section 35.42.080 – Wineries (County of Santa Barbara, 2008)

- At least 50% of the grapes processed by an inland winery (as measured over a five-year period) must have been grown in Santa Barbara or San Luis Obispo Counties, and can only sell wines processed on-site or by the winery operator off-site. Wineries in the coastal zone are only allowed to process grapes grown on-site, and can only sell wine from these grapes.

Wineries must be set back at least 100 feet on all sides (200 if they are open to the public), and 200 feet from all residences (400 if open to the public). The County explicitly authorizes smaller setbacks if the normal standards would cause significant environmental impacts or are otherwise impractical.

- Any new winery structure or modifications to existing structures must be approved by the Board of Architectural Review. Building heights are generally
limited to 35 feet except under specific circumstances where pitched roofs are used. Additional design regulations govern color and materials, screening, and lights.

- Parking standards for wineries are fairly complex, as spaces must be set aside for tasting rooms, production facilities, and offices/administration as applicable. Additionally, parking spaces for buses/limousines and special events are required.

- There can only be one tasting room on a parcel. If a winery produces wines for multiple operators, or multiple wineries are located on the same parcel, they may share a tasting room.

- Specific regulations address amplified music as special events. While the particulars vary depending on where the winery is located, in general the event and amplified noise must end by specific times, and noise levels cannot exceed 65 dBA at the parcel’s boundary.

- Wineries are required to have a Hazardous Materials Business Plan approved by the County’s fire department or other relevant community fire district.

**Equestrian Facilities:** Santa Barbara County has two self-reported equestrian facilities (California Agricultural Tourism Directory, n.d.). They are allowed with a land use permit in inland AG-II zones, and with a Conditional Use Permit in AG-I (coastal and inland) and AG-II coastal zones. There are no zoning regulations that address size, operation, or other elements of equestrian facilities.

**Farm Stalls:** Of Santa Barbara County’s 14 agritourism destinations, five conduct direct sales of agricultural goods (California Agricultural Tourism Directory, n.d.). One such operation is shown in Figure 26.
• Farm stalls are allowed with a permit in both the AG-I and AG-II zones. A land use permit is required for inland areas and a coastal development permit is needed within the coastal zone. However, the requirement for a coastal development permit is waived if the proposed location is more than 50 feet from a wetland/beach/cliff/environmentally sensitive area, and will not cause any adverse impacts to beach access, trails, and scenic views.

• Farm stands can only sell agricultural goods grown on-site, off-site within Santa Barbara County on land owned or leased by the operator, or within 25 miles of the parcel. There are two exemptions to this policy: nurseries, and “imported vegetative holiday sales products” (e.g. pumpkins for Halloween, already-cut pine trees for Christmas, etc.).

• Publicly-accessible areas of nurseries and the aforementioned holiday-focused operations are limited to 10,000 square feet. Nurseries can exceed this size limit with the approval of a Development Plan.

Any structures for direct agricultural sales must be at least 20 feet from any street right-of-way. Structures are limited to 200 square feet in the coastal zone and 600 square feet in inland areas.

• Non-produce items can be sold in certain circumstances (e.g. nurseries can sell relevant landscaping materials and equipment). Such items cannot take up more than 300 square feet of floor area.

Figure 26: Produce for sale at the organic Fairview Gardens, part of the operations of the Center for Urban Agriculture (Fairview Gardens, 2003).
• Permanent direct sales operations must have some sort of surfaced parking area. In the coastal zone, the surface must be permeable unless it is not feasible for disability access requirements. Seasonal operations do not need surfaced parking, but parking areas must be occasionally wetted down to minimize dust.

• Structures that are not used for more than a year must be taken down within three months.

**Local craft goods:** No artisan facilities have self-reported as agritourism operations in Santa Barbara County (California Agricultural Tourism Directory, n.d.). However, such operations are relatively easy to establish under the current zoning. There are two land use types that can be used to produce local craft goods: artist studios and home occupations

• Santa Barbara County allows artist studios in both the inland and coastal areas of AG-I and AG-II zones with a land use permit in the inland areas or a coastal permit in the coastal zone. For the purpose of other regulations, they are treated as an accessory use.

• They must be single-story structures (lofts count as second stories) and be no taller than 16 feet. Artist studios cannot be used for dwelling purposes.

• Artist studios must meet the same setback requirements as the primary structure or use on the parcel.

• Any sorts of commercial sale of the artisan goods cannot take place on the lot unless the sale is related to an authorized home occupation.

• Home occupations, like artist studios, are allowed in AG-I and AG-II zones with a coastal permit if within the coastal zone or a land use permit if inland. They must be an accessory use to the main use of the parcel.
• There can only be one home occupation per lot. It must be conducted indoors in an artist studio or within one room of the dwelling; home occupations cannot technically be carried out in a garage.

• Home occupations must be carried out on-site by the residents, although they are allowed to hire other employees provided such employees only work off-site.

• A home occupation can have no more than five clients/patients/students/customers on site at any one time.

• They cannot generate noise louder than 65 A-weighted decibels (dBA) as measured outside of the dwelling, produce smoke or odor, generate electromagnetic disruption, or use any hazardous materials that would not normally be found in a home. Materials used for a home occupation cannot be stored outside.

• There can be no signs advertising the home occupation.

• The traffic generated by a home occupation cannot change the character of the neighborhood or exceed available parking spaces. Business-related deliveries are limited to two per week (excepting the US Postal Service and commercial parcel deliveries).
The previous sections clearly demonstrate the effectiveness of buffers and agritourism, as well as showing various policies that can be adopted to promote such techniques and thereby fulfill the County’s intentions in Eastern Goleta Valley. However, one must remember that the case studies and academic literature survey a wide variety of agricultural operations with numerous climates, proximity to urban areas, sizes, and in different countries. The urban farms of Eastern Goleta Valley are a relatively unusual form of agriculture, with specific conditions and objectives that are worth reiterating.

- Small parcels (ranging from about 3 to 50 acres), surrounded on some or all sides by suburban development.
- Most operators own their land; many also own and/or lease multiple parcels.
- Close proximity to the ocean, with some parcels lying partially or entirely within the coastal zone, and in close proximity to riparian areas.
- Limited potential for agricultural expansion due to high development pressure, a largely built-out community, and water scarcity.
- Pressure from residents to preserve farms (up to and including a policy of no net agriculture loss) in order to maintain community characteristics.
- Pressure from farmers to permit diversification of land uses in order to maximize revenue.

Given these factors, not all of the lessons and policies explored in the literature and case studies are applicable to Eastern Goleta Valley. This section will summarize the previously-discussed findings and examine whether they are suitable for implementation in Eastern Goleta Valley, and if so, how they should be put into effect.
Buffers

As noted in the literature, buffers around agricultural areas are capable of fulfilling numerous functions: filtering sediment, nutrients, and other polluting matter out of runoff; reducing windspeed; trapping dust and airborne pollutants; providing habitat for beneficial and/or native plants and animals; and sequestering carbon in the soil. All these functions are positives for the community and consistent with the objectives in the Eastern Goleta Valley Community Plan; therefore there is no reason why buffers should not be designed to accomplish these purposes. A prime issue is how wide agricultural buffers should be in order to be effective, as the communities examined in the case studies have a wide range of opinions regarding this, as shown in Table 10.

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Buffer Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arroyo Grande</td>
<td>100 ft. 8</td>
</tr>
<tr>
<td>Davis</td>
<td>150 ft.</td>
</tr>
<tr>
<td>Del Norte County</td>
<td>100 ft.</td>
</tr>
<tr>
<td>El Dorado County</td>
<td>100 ft.</td>
</tr>
<tr>
<td>Napa</td>
<td>80 – 120 ft. 9</td>
</tr>
<tr>
<td>Patterson</td>
<td>No set width</td>
</tr>
<tr>
<td>San Luis Obispo County</td>
<td>50 – 600 ft. 10</td>
</tr>
<tr>
<td>Santa Cruz County</td>
<td>200 ft.</td>
</tr>
<tr>
<td>Stanislaus County</td>
<td>150 – 300 ft. 11</td>
</tr>
<tr>
<td>Ventura County</td>
<td>150 – 300 ft. 12</td>
</tr>
</tbody>
</table>

With the exception of the city of Patterson, all jurisdictions have specific width requirements. Some are fixed “one size fits all” approaches, while others vary depending

8 A maximum of 500 feet is recommended for pesticide drift mitigation

9 Buffer width is dependent on density of adjacent residential uses.

10 Buffer width is dependent on adjacent land uses, topography, and buffer design.

11 Buffer width is dependent on the adjacent land uses.

12 Buffer width is dependent on buffer design.
on certain conditions. Nevertheless, the jurisdictions all allocate fairly generous portions of land for agricultural buffers, as the average width is 159 feet or about 48.5 meters. If the purpose is to accomplish the functions listed previously (filtering pollutants, sequestering carbon, etc.), then these requirements are excessive, as academic studies on this subject showed that significantly less land is necessary for buffers to be effective. Summaries of these studies are given below.

- A 23-foot-wide buffer comprised of switchgrass removed about 70% of sediment, 28 – 72% of nutrients, and absorbed 69 – 85% of runoff water.

- A 53-foot-wide buffer made of a combination of woody and herbaceous plants removed 92% of sediment, 35 – 93% of nutrients, and absorbed 79 – 96% of runoff water.

- A 20-foot-wide buffer made of a grass called fescue trapped 80 – 85% of sediments.

- In 60-foot-wide buffers made of multiple herbaceous plants, 70- 80% of sediment capture occurred in the initial 10 feet with virtually no capture after 30 feet.

- Two studies confirmed that 86 – 88% of water-borne sediment capture occurs in the initial 33 feet of a buffer, regardless of buffer composition.

- On the issue of blocking wind, width is not nearly as important as density (with a porosity of 20 – 25% as optimal) and height (5 to 25 feet is ideal) of plant matter.

- Buffer width has no impact on capturing airborne liquid particles such as pesticide; density (optimal porosity around 25%) and leaf size (the smaller, the better) is more important.
While width is a significant factor in sustaining a diverse population of birds, vegetation types in the buffer also play a major role.

Buffers as narrow as 23 feet are capable of providing sufficient habitat for small mammals.

A wider buffer will sequester more carbon, but this is also dependent upon the types of vegetation and the productivity of the soil.

Therefore, the academic studies largely show that there is no improvement in buffer efficiency beyond 50 feet or so, and even a 30-foot-wide buffer is capable of largely accomplishing the goals of an academic buffer. Indeed, the only reason for a wider buffer would be as a means of visual separation between the agriculture and surrounding uses, so as to avoid aesthetic incompatibility. While this is a goal of many cities it is useless for Eastern Goleta Valley, given the community’s embrace of agricultural land uses and the close proximity of farms to surrounding land uses, as illustrated in Figure 27 and in Map 7. The high development pressure and cost of land make it very unlikely that a developer will have the luxury of devoting wide swaths of land to creating an agricultural buffer. The buffer should therefore be kept to the minimal width necessary to fulfill its objectives; a minimum width of 30 feet seems sufficient.

As for buffer composition, a diversity of vegetation types is necessary to maximize a buffer’s effectiveness. A mixture of shrubs and trees was largely the most
effective at blocking wind, provided habitats for the greatest number of plants and animals, and appears to boost the amount of sequestered carbon. While one study did find that a buffer comprised solely of grasses was more effective than a buffer made of a combination of vegetation types at capturing sediments and nutrients in runoff, this result was not corroborated by other studies (indeed, the combination buffers were shown to be superior in some cases). Vegetation types had no impact on capturing dust and other airborne particles, as this depends on the specific plants; smaller leaves with a total vegetative opacity of 0.25 to 0.2 was ideal. To be most effective, buffers should incorporate groundcover, grasses, woody shrubs, and trees, or at the bare minimum a combination of woody and herbaceous plants.

**Agritourism**

The academic studies on agricultural diversification and agritourism leave little doubt that promoting agritourism is an effective means of increasing farm revenue and the economy of Eastern Goleta Valley and the greater Santa Barbara area. Furthermore, these studies also demonstrate that agritourism is more effective when there are multiple destinations in an area (such as Eastern Goleta Valley), and that the farmers of Eastern Goleta Valley are of the type who is likely to practice agritourism. Instead, the question is how to structure a new zoning code that will encourage agritourism in without significantly changing the rural characteristic of a community. Several of the jurisdictions examined have attempted to address this issue by requiring that properties with agritourism operations also maintain some land in active agricultural production. For example, smaller wineries in San Diego County must make at least 25% of their wine from grapes grown on-site, bed and breakfast operations in Sonoma County must be secondary and non-disruptive to agricultural uses, and most or all of the produce sold at farm stands in most jurisdictions must be grown on-site or on other land owned or leased by the operator. El Dorado County goes furthest with its Ranch Marketing designation,
which requires that farmers keep at least 10 acres of annuals or 5 acres of perennials in active agricultural production for commercial purposes. By linking the agritourism activities to growing produce, jurisdictions ensure that farmers must keep their crops healthy and commercially viable if they wish to maintain the supplemental income from their agritourism operation.

Although El Dorado County’s policy may be effective, it is flawed as a model for Santa Barbara County because the crop requirements are absolute measurements instead of being relative to the size of the agricultural operator. Given the small size of Eastern Goleta Valley’s urban farms, it is unfair that a ten-acre parcel must designate 50 – 100% of its land as cropland while a larger 50-acre parcel only needs to set aside 10 – 20% and develop the remainder for agritourism uses. Furthermore, not all agritourism activities have an equal impact on an area’s rural character. In this case, El Dorado County has taken a more applicable approach by classifying land uses for Ranch Marketing-designated parcels into three distinct categories: those allowed by right, those permitted with a site plan review and approval from the County Agricultural Commissioner, and those permitted with a Special Use Permit. Table 11 provides greater detail on allowable uses under the Ranch Marketing designation; the full text of the ordinance is included as Appendix D.
<table>
<thead>
<tr>
<th>Permission Needed</th>
<th>Uses</th>
</tr>
</thead>
</table>
| **Allowed by right** | • Daytime picnic areas.  
| | • Display and sale of produce, locally-produced agricultural products and local craft goods.  
| | • Display and sale of non-local craft goods (500 square feet or less)  
| | • Bake shops and food stands that use crops and goods produced on-site.  
| | • Special events such as weddings, birthdays, retreats, etc. (6 or 12, per year, maximum attendance of 125 people per event)  
| | • Promotional events for the farm.  
| | • Sale of alcohol made from produce grown on-site (primarily wine).  
| | • Agriculturally-themed museums.  
| | • Farm stays on parcels with more than 10 acres in permanent agricultural production. |
| **Site plan review and County Agricultural Commissioner approval** | • Display and sale of non-local craft goods, up to 1,000 square feet of space.  
| | • Special events with between 125 and 250 guests.  
| | • Farm stays on parcels with less than 10 acres in permanent agricultural production. |
| **Special Use Permit** | • Processing and sale of agricultural goods grown off-site.  
| | • Commercial special events (e.g. concerts, music festivals, carnivals, etc.).  
| | • Bed and breakfasts.  
| | • Restaurants and cafes.  
| | • Overnight camping, including for RVs.  
| | • Commercial recreational facilities.  
| | • Special events with more than 250 people in attendance. |
This is similar to the requirements for an Urban Agriculture zoning designation in the Eastern Goleta Valley Community Plan, one action item reading “Define a flexible range of small-scale allowable secondary uses that are compatible with urban agricultural uses that…support, complement, and promote sustainable agricultural operations and agritourism…Secondary urban agricultural uses shall be allowed only when primary agricultural uses exists onsite” (County of Santa Barbara, 2010, p.89). Planners for Santa Barbara County have expressed an interested in a tiered system of land uses for urban agriculture, and the El Dorado County example would be an effective model for such a system. Furthermore, this expanded list of uses in El Dorado County does not apply to all agricultural areas; instead the landowner must apply for the Ranch Marketing designation and be approved before they are allowed to engage in the secondary land uses described in Table 11. It would behoove Santa Barbara County to create a similar sort of agritourism designation which land owners could apply for instead of creating a blanket zoning designation for all Eastern Goleta Valley urban farms.

In order to avoid the potential problem of El Dorado County, wherein a 50-acre parcel is allowed to engage in Ranch Marketing activities with only five acres of land in agricultural production, the Eastern Goleta Valley designation should be based on percentages instead of absolute quantities of land. To ensure that the agricultural quality of the land is not lost, farmers should be required to maintain a relatively high percentage of their land in active production. For a tiered system, three levels are appropriate (anything beyond three would be overly complicated). Tier I uses should be either agricultural activities (growing crops) or highly related uses such as small produce stalls, Tier II uses should be slightly more land-intensive and generating higher traffic volumes (wine tasting rooms, event space, etc.), and Tier III uses would be more intensive while still consistent with the agricultural character of the area (bed and breakfasts, riding schools, larger artisan facilities, etc.). The Tier I agricultural uses should be allowed by right (in the language of the County, exempt), while Tier II uses should require a
ministerial permit. The most intensive uses, those in the Tier III category, should require a discretionary permit, which would give county planners the ability to impose certain conditions upon a proposed land use to ensure it remains consistent with the agricultural nature of Eastern Goleta Valley. Additionally there should be further standards (such as limits on the number of guest rooms in a bed and breakfast) to maintain a more rural feel for the community and help control any issues of incompatibility.
Map 7: Sample Buffer Widths in Eastern Goleta Valley

- Urban Ag Parcels
- 30 ft. Buffer
- 100 ft. Buffer
- 600 ft. Buffer

Data courtesy Santa Barbara County
Proposed Zoning Changes

UA-EGV: Urban Agriculture for Eastern Goleta Valley

Purpose: Urban farms are a unique feature of Eastern Goleta Valley that are critical to this being a sustainable community. Historically widespread throughout the Goleta area, land use decisions following World War II resulted in the partitioning and development of large agricultural tracts. Currently less than 500 acres of agricultural land exists in Eastern Goleta Valley, and are threatened by encroaching development, high land values, neighbor complaints about dust, noise, and chemicals, and the high cost of irrigation, among other concerns.

The farms in Eastern Goleta Valley contribute greatly to the community’s economic and environmental health, as well as to a rural character that is highly prized among residents and visitors. Additionally, urban farms hold significant potential as prime agricultural tourism destinations. While land use decisions made in the past cannot be reversed, this section intends to preserve the urban agriculture of Eastern Goleta Valley, and to allow it to become more productive and viable.

Setbacks, height limits, density, landscaping, parking, signs, and allowable/permitted land uses (excluding the expanded land uses for Agritourism Destination parcels) shall remain identical to the AG-I zoning designation.

Buffers: Their function is to reduce potential conflicts between agricultural and non-agricultural land uses involving disputes over noise, odors, dust, chemicals, and runoff. Buffers minimize soil loss from erosion, protect the biological integrity of riparian areas, promote the sequestration of atmospheric carbon, and provide habitat for beneficial and sensitive species.
Buffers shall be required for all development adjacent to a parcel currently being used for agricultural purposes or a parcel that is agriculturally viable but is not actively farmed.

All buffers shall be a minimum of 30 feet wide as measured from the parcel boundary to the beginning of development, which shall be defined as any buildings, parking lots, or roads. Buffers should not be wider than necessary to accomplish their intended functions.

Buffers shall be composed of a mixture of groundcover and grasses, woody shrubs, and trees. Native plants shall be used whenever feasible. All trees shall occupy planting containers of at least 5 gallons at time of installation.

To protect farmland from negative impacts during construction, buffers shall be established prior to any construction or grading.

Buffers may contain drainage pipes and channels, pedestrian and bike paths, utility corridors, storage sheds, and other low-intensity development, provided that such development is not detrimental to the buffer’s effectiveness and functions.

The landowner shall maintain the buffer so it may function as intended, and to restore the buffer promptly as necessary.

All buffer designs shall be submitted to the Santa Barbara County Agricultural Planning Program, which shall have the authority to adjust a buffer’s width, composition, and permitted development within the buffer as necessary. The Agricultural Planning Program staff must approve the buffer before it can be established. The Agricultural Planning Program staff may not reduce a buffer’s width to less than 30 feet except in cases where a 30-foot buffer would prevent a parcel from being used in the manner designated by its zoning, and then only to the extent necessary to allow for the use.

A buffer management plan shall be prepared, to include erosion control, weed and pest management, and maintenance of any infrastructure in the buffer. The Agricultural
Planning Program staff shall be responsible for reviewing and approving or denying all buffer management plans.

If an agricultural parcel separated from an adjacent developed land use by a buffer is itself developed, the buffer may be removed with discretionary approval by the Planning Commission. The Planning Commission may require the buffer to be preserved if it continues to serve a necessary function, including but not limited to, providing habitat for species of concern, controlling drainage or erosion, improving water quality, providing needed open space, or sequestering atmospheric carbon as a greenhouse gas emissions mitigation measure.

**Agritourism:** To promote an agriculturally-focused tourism sector in Eastern Goleta Valley, and to allow farmers to receive supplemental income while maintaining the agricultural character of the community, an Agritourism Destination entitlement shall be created.

Landowners seeking the Agritourism Destination entitlement shall be required to submit a site plan showing all existing and proposed uses to the Agricultural Planning Program staff.

Uses for land allowed to act as an Agritourism Destination site shall be divided into three categories: Tier I, Tier II, and Tier III. Tier I uses shall occupy no less than 50% of all land of an Agritourism Destination parcel. Tier II and Tier III land uses shall be permitted to occupy the remaining designated area. Tier III land uses may not occupy more than 25% of the total area of the parcel. Land within a right-of-way or otherwise unsuitable for any economically-viable agriculture or agritourism uses shall not be included in the amount of allowable land for any land use tier.

Tier I uses are active agricultural production and related uses. They are exempted uses on all Agritourism Destination parcels and may include the following uses:
• Cultivated crops, including row crops, orchards, vineyards, and nurseries.

• Animal keeping/raising, not including horses, cows/cattle, pigs, commercial poultry operations, and commercial animal boarding. Such activities shall be consistent with the regulations for AG-I zones as outlined in Section 35.42.060 of the Santa Barbara County Land Use and Development Code, unless explicitly stated otherwise.

• Greenhouses

• Produce stands no larger than 500 square feet

Tier II uses are permitted with a land use or coastal development permit (as defined in Sections and 35.82.110 and 35.82.050 of the Santa Barbara County Land Use and Development Code) and include:

• Processing of agricultural goods (e.g. grapes into wine)

• Outdoor picnic areas

• Event space for events with no more than 250 guests in attendance, not exceeding 12 events per year.

• Tasting rooms

• Bake shops or other stands selling prepared food (no interior seating)

• Single-family residences

• Attached second residential units

• Produce stands no larger than 1,000 square feet
• Studio, display, sale, and educational/workshop space for artisan crafts, including but not limited to pottery, jewelry, woodworking, sculpture, drawing/painting, and sewing, not to exceed 1,000 square feet.

Tier III uses are allowed with a minor conditional use permit (as defined in Section 35.82.060 of the Santa Barbara County Land Use and Development Code) and include:

• Restaurants with seating for no more than 30 people
• Bed and breakfasts
• Agricultural housing, campgrounds, and other farm stay accommodations
• Stables, riding schools, and other equestrian facilities. Such activities shall be consistent with the regulations for AG-I zones as outlined in Section 35.42.060 of the Santa Barbara County Land Use and Development Code, unless explicitly stated otherwise.
• Commercial animal boarding, commercial poultry operations, and keeping/raising of cows/cattle and pigs, excluding any hog ranches, or commercial livestock feed or sales yard. Such activities shall be consistent with the regulations for AG-I zones as outlined in Section 35.42.060 of the Santa Barbara County Land Use and Development Code, unless explicitly stated otherwise.
• Event space for events in excess of 250 guests in attendance and/or to be used for no more than 24 events per year.
• Detached second residential units
• Produce stands in excess of 1,000 square feet
• Studio, display, sale, and educational/workshop space for artisan crafts in excess of 1,000 square feet.
The following conditions shall apply to specific uses:

- At least 75% of all goods sold at produce stands shall have been grown and/or processed within Santa Barbara County, San Luis Obispo County, Ventura County, or on parcels owned or leased by the operator in other counties.

- At least 50% of baked goods and other prepared food sold at an Agritourism Destination shall use produce grown and/or processed on-site or on other parcels owned or leased by the operator.

- At least 50% of the goods processed on an Agritourism Destination parcel shall have been grown on-site or on other parcels owned or leased by the operator.

- All goods grown, crafted, or processed on an Agritourism Destination parcel shall be made available for purchase on-site.

- Restaurants and bed and breakfasts are encouraged to provide produce and prepared goods grown and/or processed on-site or on other parcels owned or leased by the operator.

- Bed and breakfasts shall have no more than 5 guest rooms. All meals may only be served to overnight guests. Kitchens may not be located in guest rooms. The owner and/or operator must reside on-site, either in the bed and breakfast or in a separate structure. If the owner/operator is in a separate structure, contact information for the owner/operator shall be posted in all guest rooms.

- A minor conditional use permit shall be required for any outdoor amplified music.

All Agritourism Destination parcels shall be required to maintain agricultural production. If less than 50% of usable land is not in active agriculture for duration in excess of one year continuous months, the landowner shall justify the decrease in
agricultural activity to the Agricultural Planning Program staff in order to maintain
the Agricultural Destination designation

<table>
<thead>
<tr>
<th>Animal Type</th>
<th>Permits Needed</th>
<th>Maximum Number of Animals Per Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bees</td>
<td>None</td>
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</tr>
<tr>
<td>Cattle</td>
<td>None</td>
<td>1 per 20,000 square feet.</td>
</tr>
<tr>
<td>Commercial animal boarding</td>
<td>MCUP</td>
<td>No limit</td>
</tr>
<tr>
<td>Commercial kennel</td>
<td>MCUP</td>
<td>No limit</td>
</tr>
<tr>
<td>Dairy cows</td>
<td>MCUP</td>
<td>No limit</td>
</tr>
<tr>
<td>Fowl and poultry</td>
<td>None&lt;sup&gt;13&lt;/sup&gt;</td>
<td>No limit</td>
</tr>
<tr>
<td>Goats and sheep</td>
<td>None</td>
<td>3 per 20,000 square feet, max of 5 per lot</td>
</tr>
<tr>
<td>Hogs and swine</td>
<td>None</td>
<td>1 per 20,000 square feet, max of 3 per lot</td>
</tr>
<tr>
<td>Horses and mules</td>
<td>None</td>
<td>1 per 20,000 square feet.</td>
</tr>
<tr>
<td>Household pets&lt;sup&gt;14&lt;/sup&gt;</td>
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</tr>
<tr>
<td>Llamas and alpacas</td>
<td>None</td>
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</tr>
<tr>
<td>Non-commercial kennel</td>
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<td>No limit</td>
</tr>
<tr>
<td>Ostriches</td>
<td>None</td>
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</tr>
<tr>
<td>Rabbits</td>
<td>None</td>
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</tr>
<tr>
<td>Wildlife species rehabilitation</td>
<td>None</td>
<td>No limit&lt;sup&gt;15&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

Adopted from Table 4-1 (County of Santa Barbara, 2008, p.4-15)

<sup>13</sup> MCUP required for commercial operations
<sup>14</sup> Household pets may not be kept for commercial purposes, and may not create offensive noises or odors or otherwise be detrimental to the health, safety, or welfare of the neighborhood. Any enclosures must be at least 25 feet from all dwellings on other lots. Roosters or peacocks may not be kept on the lot, and there may be no more than 3 dogs per lot.
<sup>15</sup> Wildlife species rehabilitation is limited to species that commonly exist in Santa Barbara County. Such activities may not create offensive noises or odors or otherwise be detrimental to the health, safety, or welfare of the neighborhood.
Beyond the matters discussed in this paper, there are other factors needed to ensure the viability of any agricultural operation regardless of size, with water being the primary example. California water comes from the Colorado River and snowmelt in the Sierra Nevada; both sources are expected to decline with the impacts of climate change (Moser et al., 2009). While about 86% of Eastern Goleta Valley’s current water supply and 75% of its long-term allocation comes from local sources, in the form of the local watershed, groundwater, and recycled water (Goleta Water District, 2005), climate change is also likely to affect available water from these locations. The already-high cost of water is an issue that has been publically raised by the farmers of Eastern Goleta Valley (Elliot, 2010) – the cost is currently $435.63 per acre-foot (Goleta Water District, 2006) – and the long-term future is unlikely to result in anything but increasing costs. Although there is little that can be done to stop this trend, local agencies can continue and expand upon their water conservation efforts. Encouraging farmers to use less water through water-saving irrigation methods and crops that are more drought-tolerant will have the additional benefit of lowering a farm’s long-term costs.

As noted previously, parcels with the Agritourism Destination entitlement will still require a land use/coastal development permit or minor conditional use permit for some of their activities. The process for such permits can not only be lengthy and complicated, but expensive as well; a coastal development permit with a required hearing costs the applicant $5,040, not including any costs paid to a consultant to prepare the application or conduct an environmental review or other studies (County of Santa Barbara, 2010d). Many jurisdictions that wish to promote a certain sort of development or use will offer expedited permitting for those uses, in which the permit is processed faster than others, and is an option the County could consider. Similarly, the County could also decrease the fees or required materials for an agritourism permit application, as this
would make it easier for landowners to obtain permission to enact the County’s vision of an agritourism-heavy Eastern Goleta Valley. A pre-application meeting may also be helpful; such meetings are offered by the County planning department, but do not appear to be mandatory (County of Santa Barbara, n.d._2_)

While not a land use issue, health regulations can be an obstacle to agritourism. Farms or wineries may often wish to provide food from other sources along with their goods; for example, providing a piece of cheese as part of a wine tasting to compliment and enhance the wine’s flavors, or hosting a BBQ to highlight the farm’s produce. While such operations have no intention and no need to operate a full commercial kitchen, the current health regulations of Santa Barbara County require agritourism uses to meet the same standards as a commercial restaurant, creating a significant financial burden (Personal communication – K. Steinwachs, April 30, 2011). Some easing of these regulations, or an expedited and less expensive version of a health permit for such limited uses, would allow agritourism uses to offer more in the way of amenities and attract a greater number of visitors. The County may also wish to consider a guide intended to assist farmers in obtaining the necessary permits and navigating through the regulatory process. One such example is a document published by Yolo County, which (among other things) discusses several agritourism and other forms of agricultural diversification. For each use, the document lists the zones where the use is permitted, the planning permits that are needed and the necessary submission material (site plan, electrical schematics, drainage plan, etc.), and any additional departments or organizations that will need to approve the proposed use (County of Yolo, 2008). Segments of this document are included at the end of this document as Appendix C.

Making sure a farmer has access to the local food market is another important component of ensuring economic viability. The Santa Barbara area holds eight farmers markets six days a week, and several markets and restaurants promote the availability
of local produce, yet only 20% of the goods produced by area farmers is purchased locally (Elliot, 2010), including at farmers markets, as illustrated in Figure 28. As people become increasingly aware of where their food comes from, it is reasonable to expect that there will be more interest in buying locally, but the county should take an active role in fueling this interest. Part of the rationale for providing agritourism uses, particularly produce stands, is to draw more people to the farms, generating more interest in the operation and its produce, as well as providing farmers with additional means of selling their goods directly to consumers; it is hoped that more agritourism will help to increase the amount of locally-purchased produce. The county already has a goal of making 60% of all discretionary purchases from local vendors (County of Santa Barbara, n.d.), but this does not address the issue of where the products actually come from. A policy specifying that a certain amount of all food purchased by the county (for events, meetings, etc.) be grown locally would demonstrate significant leadership in this field, as well as raise attention about the abundance of locally-produced food. Jurisdictions such as Albany County, NY (County of Albany, 2009), Cabarrus County, NC (County of Cabarrus, n.d.), and Woodbury County, IA (County of Woodbury, 2006) have adopted such policies; given the variety of locally-available food in the Santa Barbara area, there is no reason why Santa Barbara County could not do something similar.
The relatively unique nature of Eastern Goleta Valley’s urban farms, as something between small personal urban gardens and larger-scale rural agriculture, requires one to think cautiously about any potential applications of the previously-discussed policies for other jurisdictions. Personal gardens and very small urban farms (no more than a few acres) will not need a detailed buffer ordinance or the option to build agritourism facilities, with the possible exception of small produce stands. Similarly, larger farms that engage in more intensive activities (animal-raising, crop spraying, etc.) may wish to have a larger buffer to provide a strong visual separation between the urban and rural areas. It may also benefit such farms to have a wider range of agritourism options available to them than the farms of Eastern Goleta Valley, given their larger size and potential to support such operations. Nevertheless, some of the findings in this document and the subsequent policies recommended for Eastern Goleta Valley could certainly be applied elsewhere, particularly the findings regarding adequate buffer widths. The finding that most goals for a buffer can be accomplished with a width of only 30 feet is one that could free up additional land for development without needing to exploit natural resources or agricultural land, particularly if the buffers were intentionally created and not a natural feature such as a riparian corridor. While there remain visual reasons for such wide buffers, jurisdictions that are not concerned with a high degree of aesthetic separation could easily accomplish their objectives with buffers that are substantially narrower than the average width of about 160 feet.

It may also behoove other jurisdictions to contemplate amendments or alterations to their zoning codes with a specific objective of promoting agritourism. Despite the growing popularity of agritourism, the number of zoning designations and regulations with the explicit purpose of encouraging agritourism remains quite limited (places such as El Dorado County being a notable exception). Certainly it is not necessary for
agritourism to be a stated objective of a zoning code for agritourism to actually occur in the jurisdiction, but it does highlight agritourism as a community goal and sends a clear message to farmers that such diversified activities would be highly welcome. Additionally, as agritourism has been shown to increase the revenue to a farm (as well as to the community at large) it is a particularly effective tool in areas with high land values. Given all the other pressures farmers face, the knowledge that their land could sell for millions of dollars only increases the likelihood of agricultural land being sold to developers. Allowing for agritourism boosts the economic viability of a farm and helps to mitigate some financial pressure. The success of El Dorado County’s Ranch Marketing designation, as well as the Agricultural Destination proposed in this paper for Santa Barbara County, speaks to the power of branding (an oft-overlooked issue in planning). Particularly in cases where tourism is involved, incorporating a unique identity into planning documents can help to strengthen the proposal’s appeal and makes it more marketable.
Definitions

**Administrative Permit:** A permit for relatively minor activities that have little or no impact on the environment or surrounding neighborhoods.

**Agritourism:** Tourism where guests are exposed to agricultural operations or are in agricultural surroundings.

**Allowable Use:** A land use which may be carried out if the proper permit or permits are obtained.

**Allowed By Right:** Any sort of development or activity that can be carried out without government permission. However, uses that are allowed by right may still be subject to particular standards.

**Bioswale:** A type of buffer consisting of a ditch lined with various plants, with the purposes of filtering sediments and pollutants from runoff, and to allow the runoff to infiltrate the soil.

**Buffer:** Any strip of undeveloped or minimally-developed land separating different land uses in an attempt to minimize or eliminate incompatibility issues

**Carbon Capture and Sequestration (CCS):** A form of mitigating greenhouse gas emissions by removing carbon dioxide from the atmosphere and storing it in a harmless form through organic or technological means.

**Conditional Use Permit (CUP):** A permit allowing a certain land use with a series of conditions that will typically vary from case to case depending on the location, size, and details of the proposed use. Sometimes referred to as a “Major Use Permit”. A conditional use permit for a smaller proposal is sometimes called a “Minor Use Permit” or “Minor
Conditional Use Permit”. Approval of any conditional use permit is discretionary on the part of decision makers.

**Direct Sales**: Farmers (or any producer of goods) selling their wares directly to consumers instead of going through an intermediary (such as a grocery store). Examples include farmers markets and U-Pick operations.

**Exempt**: See “Allowed By Right”

**Land Use Permit**: A permit for uses that are not allowed by right, but not subject to the conditions and more detailed scrutiny of a conditional use permit.

**Major Use Permit**: See “Conditional Use Permit”.

**Minor Conditional Use Permit**: See “Conditional Use Permit”.

**Minor Use Permit**: See “Conditional Use Permit”.

**Permitted Use**: See “Allowed By Right”.

**Purchase of Development Rights (PDR)**: A form of land preservation in which a government agency, non-profit group, or private entity buys the right to develop a piece of land but chooses not to exercise it, maintaining the land permanently as undeveloped.

**Receiving Area**: In a TDR program, an area designated by the program’s managers as a location where additional development rights can be applied to proposed developments. Receiving areas are usually places where the program’s manager is seeking to boost density.

**Runoff**: Water flowing off of a piece of property, typically after a precipitation event or irrigation. Runoff often contains pollutants such as sediments, excess fertilizer, and toxins.
Sending Area: In a TDR or PDR program, an area designated by the program’s managers where development rights can be sold or transferred to another landowner. Sending areas are usually places where the program’s manager is seeking to preserve in their current state of development.

Special Use Permit: See “Conditional Use Permit”.

Transfer of Development Rights (TDR): A form of land preservation, in which a landowner sells the right to develop their land to a second landowner, who can then use the additional rights to increase the allowable density on their land beyond what regulations normally allow. The land of the first landowner is then maintained permanently as undeveloped land.

Use Permit: See “Conditional Use Permit”.

U-Pick: A sort of direct sales operation where visitors to a farm pick produce themselves and then purchase it, often at a wholesale rate.

Vegetated filter strip: A type of buffer using dense, herbaceous plants to remove sediments and pollutants from runoff.
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Appendices

These appendices are intended to provide examples of some of the policy recommendations discussed in the main body of this document, as well as some additional documents to present a more detailed background of the issue at hand.

- **Appendix A**: Public comments on agriculture in Eastern Goleta Valley.
- **Appendix B**: The buffer policy and right-to-farm ordinance from the City of Davis.
- **Appendix C**: A presentation on the result of a survey of California agritourism operators.
- **Appendix D**: The Ranch Marketing designation component of the El Dorado County Code.
- **Appendix E**: Selected pages from the Yolo County Agricultural Permitting Guide.
that sprinkler systems alone would not adequately address public health and safety without consideration of emergency access and evacuations of the area. (MM 9, from tour stop 14)

**Patti Close** discussed emergency preparedness as an issue to address as a coordinated effort with the Office of Emergency Services (OES), particularly with regard to traffic on the highway in a major emergency or evacuation. Ms. Close also discussed the GVC’s approach to higher density developments to cluster development on half of property to preserve open space and pocket parks and to avoid developments that do not consider neighborhood compatibility and increased congestion. Ms. Close expressed interest in not rezoning land in the Eastern Goleta Valley because demand for housing in California has diminished due to recession. (MM 15)

### 7. Comments on Agriculture Land Use:

**Craig Minus**, representing the Towbes Group as agent for ownership of the San Marcos Growers property, provided additional information regarding the San Marcos Growers property for the upcoming van tour. Mr. Minus explained that though there is no official application or proposal currently recorded by the County for development of the San Marcos Growers property, conceptual plans and concrete ideas for the future use of the site as housing have been developed by the owner and the agent. Mr. Minus also stated that the San Marcos Growers property is primarily an above-ground nursery operation. (MM 8)

**Jack Ruskey**, a farmer from Zone 1 of the Goleta Valley Planning Area, expressed interest in leaving the 1993 policies for agriculture unchanged to preserve agricultural land use designation, create fire break between urban uses and rural foothills, and preserve agricultural character that people like. Mr. Ruskey discussed high land prices as a result of such character and quality of life and that agricultural land values should not be determined based on what the land could be used for under a different land use designation like residential or commercial. (MM 15)

**Anne Crosby** characterized staff as planners, not farmers, who abstracted agricultural issues in the Goleta Valley and urged the GVPAC to consider viability of agriculture from farmers’ perspective, in light of water availability, and in the interest of food security, in addition to the technical land use planning perspective. (MM 15)

**Patti Close** suggested the GVPAC terminate the policies from the Goleta Community Plan to provide affordable housing to all Goleta residents. Ms. Close discussed the definitions of rural, urban and suburban areas and urged the GVPAC to protect suburbia in the Eastern Goleta Valley with track houses instead of multi-story developments. Ms. Close also expressed interest in preserving agricultural lands in the interest of food security when transport is unable to ship food to local grocery stores, and subsidizing farmers similar to how cities subsidize affordable housing developments. (MM 15)

**Suzanne Elledge**, from Suzanne Elledge Planning Services
representing Ron Caird, asked that the GVPAC consider rezoning 2 small areas of the Caird property in the S. Patterson Agricultural Area to new land use designations, specifically 3.5 acres to professional/institutional (PI) and 5 acres to Residential (7-R-1). This request was made to balance agricultural interests with economic interests of property owners, preserve open land and agricultural operations, and alleviate cost pressures due to water, labor, and services in the urban area. (MM 15)

John Givens, representing John Givens Farms, described difficulties in farming in the Eastern Goleta Valley and urban areas in general due to lack of available land, labor supply and cost, lack of infrastructure and services for farm equipment, lack of local demand for crops (20% of crops sold at local farmers markets, 80% sold across country), and lack of incentive to buy and farm land. (MM 15)

Ron Caird, representing the Caird properties, described the ease of farming in other areas of the County, like Santa Maria, over the housing, lighter regulations, a supportive agricultural community, and large areas of viable agricultural land instead of pockets. Mr. Caird explained that high intensity agriculture is valuable, but costly (his land use permit to construct greenhouses in the Patterson Agricultural Area cost $1.5 million, will cost $35/sq ft to build, and will not provide a return on the investment for 35 years). Mr. Caird explained that rezoning a portion of his agricultural land would help sustain his other agricultural operations, which are primarily cut flowers and not food crops. (MM 15)

Stan Giorgi, representing the Giorgi Family farms, explained that his farms primarily produce lemons in large quantities beyond the demand locally which requires their sale nationally. Mr. Giorgi expressed concern over high land costs which prevent new farming operations or sale of farms to other farmers due to little return on investment in the business. (MM 15)

Mary Whalen discussed a past proposal to develop San Marcos Grower’s property with 1200 units as inflating the value of the land under a presumed rezone to allow the development. (MM 15)

Patty Close expressed concern that encroachment of the built environment into farmland operations will make it more difficult for farmers to continue viable agricultural operations. (MM 16)

Bob Alm, owner of agricultural property at 529 Shoreline Dr used for potted plant/nursery business, requested that his property be considered for residential rezoning similar to adjacent neighborhood due to difficulties associated with cost of water and labor, and problematic markets. (MM 18)

Dean Lowery, owner of Diegard Nursery in the South Patterson agricultural area, expressed interest in working with the community to convert some agricultural land as a public service, such as circulation, accessibility, and safety, to connect the community with the coast while creating a “win-win” situation for private property owners and the public. (MM 21)
Karen Alm, representing Diegard Nursery, requested the GVPAC and the County consider conversion of the nursery to residential uses in exchange for a coastal park, bike trails, benches, and other public uses. Ms. Alm express interest in exchanging land uses to benefit the community and to work with adjacent landowners to achieve community goals for connectivity, recreation, and open space. (MM 21)

Bob Alm, representing Diegard Nursery, requested the GVPAC and the County consider conversion of the nursery to residential uses in exchange for a coastal park, bike trails, benches, and other public uses. Ms. Alm express interest in exchanging land uses to benefit the community and to work with adjacent landowners to achieve community goals for connectivity, recreation, and open space. (MM 21)

Patti Close, expressed concern about specific proposals to create parks, recreation and/or open spaces and houses through agriculture conversion to the detriment of water supply, food supply, and other impacts to the community. (MM 22)

Mark Mollica, representing Deigaard Nursery in the South Patterson agricultural area, extended an invitation to each of the GVPAC members to visit the Deigaard Nursery and view the property before the upcoming Agricultural Land Use meeting. (MM 23)

Jeff Foltz, representing his family which owns Groen Rose Company in the S. Patterson Agricultural Area, commented that in 1993, his family closed the greenhouse operation due to property taxes, insurance and the aging of the wooden greenhouse; currently, the property is leased for potted plant agriculture. He would like the County to consider possibilities for future subdivision and/or development of his property. (MM 24)

Pat Elton, representing Old San Marcos Rd Property Owners, suggested that Zoning should be changed to reflect actual parcels and parcel sizes, so that public services and utilities are not short of necessary funding. (MM 24)

Teresa Seiley stated that her property on Old San Marcos Rd is zoned MTGo1-100, which is very restrictive; she would like the County to review that zoning designation during this Community Plan update. (MM 24)

Paul Nielsen, representing the Groen Rose Company, commented on the hardships of farming in the Eastern Goleta Valley as well as the many changes that have occurred since 1949; he suggested small area plans could be applied to small agricultural areas to implement an alternative land use but maintain the same open-space atmosphere. (MM 27)

Steve Halsey, president of the Groen Rose Company, commented on the difficulties the company has had being competitive in the flower business, until finally ceasing operations to lease land to others; he suggested that creative land use planning could preserve open space and prove viable in the long term. (MM 27)

Jeff Foltz, a South Patterson land owner, commented that his land does not benefit anyone currently, but there is an opportunity for public
benefit since it is adjacent to the bike path, near the hospital, near the university, and could possibly be used for workforce housing and parks. (MM 27)

Stan Giorgi, representing the Giorgi family, noted that 7 property owners proposed a small area plan for the Patterson Park Golf Community, which was not approved, at the time of the 1993 Goleta Community Plan and expressed concern that land use planning will be piecemeal unless there is a coordinated effort. (MM 27)

Larry Saltzman, representing Transition Town, promoted creative agriculture and permaculture options, such as a food forest and community gardens, to provide local food, as well as maintaining lands available for intensive food agriculture for future conditions. (MM 27)

Bob Alm, representing Deigaard Nurseries, presented photos from the property and urged creativity in future opportunities for residential land uses in the area which could provide a public benefit, such as a coastal park and trails. (MM 27)

Dean Lowrey, owner of Deigaard Nurseries, stated that agricultural operations in the South Patterson Agricultural Area are not competitive, that change on the Mesa is inevitable in the near future, and a rethinking of the area is necessary. (MM 27)

Kim Miller and Marnie Lelande, owners of 5030 Hollister Ave, expressed concern that if the Montessori school is built behind their property, existing agricultural operations will be impracticable due to conflicts between school and agricultural uses. Ms. Miller and Ms. Leland requested consideration of a rezone to allow for residential land uses. (MM 27)

George Tharakan commented that the Montessori school should be built to improve the neighborhood and create a buffer zone around the school, in which to provide education about agriculture. (MM 27)

Christina McGinnis, from the OPEN project, commented that agriculture often has to adapt to changing economic conditions by incorporating innovations and that agriculture is an important component of the community. Ms. McGinnis also commented that Transfer of Development Rights (TDR) should be considered to preserve agriculture to the extent possible. (MM 27)

Ron Caird, a farmer and property owner in both the South Patterson Agricultural Area and in Santa Maria, cited prohibitive costs of labor and water in the Eastern Goleta Valley and suggested that a comprehensive small-area plan be made for the South Patterson Agricultural Area. (MM 27)

Ann Crosby, a permaculture advocate and designer, commented that traditional agriculture is not the only option for agricultural land, that permaculture, small farms, and a self-sustaining food supply is possible for food security, especially in emergencies, as the best use of the land. (MM 27)
Patti Close commented that efforts should be made to assist farmers to save open space and farm operations. Ms. Close expressed concern about problems resulting from the Montessori School for the San Marcos/Hollister neighborhood, including traffic. Ms. Close also suggested that members of the GVPAC and staff should see the film “Fresh” to learn about highly productive rotational crops in urban areas. (MM 27)

Craig Minus, representing the Towbes Group and interests in the San Marcos Growers property, pointed out that maintaining agriculture for open space comes at the expense of land owners, and the County should buy the property for public open space. Mr. Minus also requested consideration of alternative land uses and the removal of the requirement for agriculture preservation. (MM 27)

Ann Crosby commented that preservation of farmland is important for the common good to ensure food security and local food supply for the area’s populations. Ms. Crosby commented that the Goleta Visioning Committee’s goal of “no net loss” of agricultural land is essential for security of local food sources. (MM 27)

Mary Whalen clarified her comments recorded in the GVPAC meeting minutes for Dec 16, 2009 regarding concerns about legal interpretation of the GVPAC’s recommended goals. Ms. Whalen also expressed concern that the draft goals for residential and agricultural land use were not reflective of the desires of the community for development in the future and were more reflective of the County’s goals. (MM 27)

Christina McGinnis, from the OPEN project, commented that retaining current agricultural designations should be considered in the interest of resource protection. Ms. McGinnis also recommended adjustments to draft goals for residential land use to ensure consistency and remove potential for conflicts. (MM 27)

Shelly Cobb presented her findings regarding community support for agriculture, food security and preventing redesignation of agricultural land based on a petition of approximately 1,100 signatures. Ms. Cobb supports newly designating land for agriculture instead of designating existing agriculture into other land uses. (MM 27)

Dean Lowrey, owner of Deigaard Nurseries, commented that the S. Patterson Agricultural area, especially the mesa neighborhood, produces nursery and container products and that the area does not produce food, whereas other areas with good soil can produce food. Mr. Lowrey also expressed concern that competition in the nursery business is driving the decline of the industry in the S. Patterson Area and that the unique qualities of the mesa neighborhood should be accounted for in the plan to prevent the failure of the business. (MM 27)

Jeff Foltz, a South Patterson land owner, commented that his agricultural business is facing bankruptcy and change is needed. Mr. Foltz explained his options include either expanding the allowable uses of the property or selling the property for housing estates and that in order to keep the property as open space, the government would have to buy it. (MM 27)
Sandy Lejeune, representing Fairview Gardens as an organic farmer, explained the difficulties and conflicts that exist for urban farmers where farm operations, including chickens, are opposed by residential neighbors and that the “right to farm” ordinance should be strictly enforced in the urban area. Mr. Lejeune also addressed the issue of water costs and local soil fertility, where food crops require soil amendments to retain the soil viability from local sources, not outside the area. (MM 27)

8. Comments on Bike Paths and Trail Improvements and Parks

Eva Inbar expressed support of a multi-modal approach to future transportation improvement planning, but also expressed concern regarding the opportunities to implement bikeway and other improvement due to limited funding and the preexisting traditional roadway system. (MM 9)

Wilson Hubbell, Vice President of the Santa Barbara Bicycle Coalition, conveyed the organization’s interest in working with the GVPAC to realize improvements to bicycle facilities in the Goleta Valley. Mr. Hubbell referred to past agreements with UCSB to make improvements to bicycle facilities as part of development impacts mitigation agreements, but noted that most of the improvements occurred in areas now incorporated in the City of Goleta; future agreements with UCSB should focus on improvements for the Eastern Goleta Valley. Mr. Hubbell also expressed concern that traffic studies undercount bicycle riders and do not include students, shoppers, trips to dentist, and other trips that could be done on bicycles. He suggested that existing infrastructure be upgraded and future improvements be implemented with design standards to connect cyclists with the same destinations that drivers frequent. (MM 9)

Patti Close expressed concern about projected future traffic conditions in the Goleta Valley would require significantly widened roads, as she has observed in the Bay Area and Orange County. Ms. Close identified concerns that widened roads would negatively affect the character and function of the Goleta Valley community considering crowded traffic conditions, particularly at Turnpike Rd. Ms. Close also expressed concern that new residential development in the future would cause severe traffic congestion regardless of mitigation and that national trip general rates and peak-hour traffic studies used to determine impacts and mitigations of new projects do not adequately capture the actual number of peak hour trips from households or the travel patterns of salespeople, service providers, mothers, students and others throughout the day. Ms. Close expressed support of making the connections between roadways, bikepaths, sidewalks, and other
Article 40A.01 RIGHT TO FARM

40A.01.010 Purpose.

(a) It is a goal of the city general plan to work cooperatively with the counties of Yolo and Solano to preserve agricultural land in the Davis planning area which is not otherwise identified in the general plan as necessary for development. It is the policy of the city to preserve and encourage agricultural land use and operations within the city and Yolo and Solano counties, and to reduce the occurrence of conflicts between agricultural and nonagricultural land uses and to protect the public health. One purpose of this law is to reduce the loss of agricultural resources by limiting the circumstances under which agricultural operations may be deemed a nuisance.

(b) It is also the policy of the city to provide purchasers and tenants of nonagricultural land close to agricultural land or operations with notice about the city’s support of the preservation of agricultural lands and operations. An additional purpose of the notification requirement is to promote a good neighbor policy by informing prospective purchasers and tenants of nonagricultural land of the effects associated with living close to agricultural land and operations.

(c) It is further the policy of the city to require all new developments adjacent to agricultural land or operations to provide a buffer to reduce the potential conflicts between agricultural and nonagricultural land uses.

(d) Implementation of these policies can be strengthened by establishing a dispute resolution procedure designed to amicably resolve any complaints about agricultural operations that is less formal and expensive than court proceedings. (Ord. 1823 § 1)

40A.01.020 Definitions.

For the purpose of this chapter, the following terms shall have the following meanings:

(a) **Agricultural land.** Those land areas of Yolo County specifically zoned as agricultural preserve (A-P), agricultural exclusive (A-E), and agricultural general (A-I), as those zones are defined in the Yolo County zoning ordinances, those land areas of Solano County specifically zoned exclusive agricultural (A-40), as those zones are defined in the Solano County zoning ordinances, and those land areas of the City of Davis specifically zoned as agricultural (A), planned development or any other zoned land as defined by the Davis Municipal Code where the land use on the land within the city limits is agricultural.

(b) **Agricultural operations.** Any agricultural activity, operation, or facility including, but not limited to, the cultivation and tillage of the soil, dairying, the production, irrigation, frost protection, cultivation, growing, harvesting, and processing of any commercial agricultural commodity, including timber, viticulture, apiculture or horticulture, the raising of livestock, fur-bearing animals, fish or poultry, agricultural spoils areas, and any practices performed by a farmer or on a farm as incidental to or in conjunction with such operations, including the legal application of pesticides and fertilizers, use of farm equipment, storage or preparation for market, delivery to storage or to market, or to carriers for transportation to market.

(c) **Agricultural processing facilities or operations.** Agricultural processing activity, operation, facility, or appurtenances thereof includes, but is not limited to, the canning or freezing of agricultural products, the processing of dairy products, the production and bottling of beer and wine, the processing of meat and egg products, the drying of fruits and grains, the packing and cooling of fruits and vegetables, and the storage or warehousing of any agricultural products, and includes processing for wholesale or retail markets of agricultural products.

(d) **Property.** Any real property located within the city limits.
(e) **Transfer.** The sale, lease, trade, exchange, rental agreement or gift.

(f) **Transferee.** Any buyer or tenant of property.

(g) **Transferor.** The owner and/or transferor of title of real property or seller’s authorized selling agent as defined in Business and Profession Code Section 10130 et. seq., or [Health and Safety Code Section 18006](http://qcode.us/codes/davis/view.php?topic=40a-40a_01&showAll=1&f...), or a landlord leasing real property to a tenant. (Ord. 1823 § 1)

### 40A.01.030 Deed restriction.

As a condition of approval of a discretionary development permit, including but not limited to tentative subdivision and parcel maps, use permits, and rezoning, prezoning, and planned developments, relating to property located within one thousand feet of agricultural land, agricultural operations or agricultural processing facilities or operations, every transferor of such property shall insert the deed restriction recited below in the deed transferring any right, title or interest in the property to the transferee.

**RIGHT TO FARM DEED RESTRICTION**

The City of Davis, Yolo and Solano Counties permit operation of properly conducted agricultural operations within the city and the Counties.

You are hereby notified that the property you are purchasing is located within 1000 feet of agricultural land, agricultural operations or agricultural processing facilities or operations. You may be subject to inconvenience or discomfort from lawful agricultural or agricultural processing facilities operations. Discomfort and inconvenience may include, but are not limited to, noise, odors, fumes, dust, smoke, burning, vibrations, insects, rodents and/or the operation of machinery (including aircraft) during any 24 hour period.

One or more of the inconveniences described may occur as a result of agricultural operations which are in compliance with existing laws and regulations and accepted customs and standards. If you live near an agricultural area, you should be prepared to accept such inconveniences or discomfort as a normal and necessary aspect of living in an area with a strong rural character and an active agricultural sector.

Lawful ground rig or aerial application of pesticides, herbicides and fertilizers occur in farming operations. Should you be concerned about spraying, you may contact either the Yolo or Solano County Agricultural Commissioners.

The City of Davis’ Right to Farm Ordinance does not exempt farmers, agricultural processors or others from compliance with law. Should a farmer, agricultural processor or other person not comply with appropriate state, federal or local laws, legal recourse is possible by, among other ways, contacting the appropriate agency.

In addition, the City of Davis has established a grievance procedure to assist in the resolution of disputes which arise between the residents of the city regarding agricultural operations.

This Right To Farm Deed Restriction shall be included in all subsequent deeds and leases for this property until such time as the property is not located within 1000 feet of agricultural land or agricultural operations as defined by Davis City Code Section 40A.01.020.

(Ord. 1823 § 1)

### 40A.01.040 Notification to transferees.

(a) Every transferor of property subject to the notice recorded pursuant to Section 40A.01.030 shall provide to any transferee in writing the notice of right to farm recited below. The notice of right to farm shall be contained in each offer for sale, counter offer for sale, agreement of sale, lease, lease with an option to purchase, deposit receipt, exchange agreement, rental agreement, or any other form of agreement or contract for the transfer of property; provided that the notice need be given only once in any transaction. The transferor shall acknowledge delivery of the notice and the transferee shall acknowledge receipt of the notice.
The form of notice of right to farm is as follows:

NOTICE OF RIGHT TO FARM

The City of Davis, Yolo and Solano Counties permit operation of properly conducted agricultural operations within the city and the Counties.

You are hereby notified that the property you are purchasing/leasing/renting is located within 1000 feet of agricultural land, agricultural operations or agricultural processing facilities or operations. You may be subject to inconvenience or discomfort from lawful agricultural or agricultural processing facilities operations. Discomfort and inconvenience may include, but are not limited to, noise, odors, fumes, dust, smoke, burning, vibrations, insects, rodents and/or the operation of machinery (including aircraft) during any 24 hour period.

One or more of the inconveniences described may occur as a result of agricultural operations which are in compliance with existing laws and regulations and accepted customs and standards. If you live near an agricultural area, you should be prepared to accept such inconveniences or discomfort as a normal and necessary aspect of living in an area with a strong rural character and an active agricultural sector.

Lawful ground rig or aerial application of pesticides, herbicides and fertilizers occur in farming operations. Should you be concerned about spraying, you may contact either the Yolo or Solano County Agricultural Commissioners.

The City of Davis’ Right to Farm Ordinance does not exempt farmers, agricultural processors or others from compliance with law. Should a farmer, agricultural processor or other person not comply with appropriate state, federal or local laws, legal recourse is possible by, among other ways, contacting the appropriate agency.

In addition, the City of Davis has established a grievance procedure to assist in the resolution of disputes which arise between the residents of the city regarding agricultural operations.

This notification is given in compliance with Davis City Code Section 40A.01.040. By initialing below, you are acknowledging receipt of this notification.

Transferor’s Initials ______  Transferee’s Initials ______

40A.01.050 Agricultural buffer requirement.

(a) In addition to the right to farm deed restriction and notice requirement, the city has determined that the use of property for agricultural operations is a high priority. To minimize future potential conflicts between agricultural and nonagricultural land uses and to protect the public health, all new developments adjacent to designated agricultural, agricultural reserve, agricultural open space, greenbelt/agricultural buffer, Davis greenbelt or environmentally sensitive habitat areas according to the land use and open space element maps shall be required to provide an agricultural buffer/agricultural transition area. In addition, development limits or restricts opportunities to view farmlands. Public access to a portion of the agricultural buffer will permit public views of farmland. Use of nonpolluting transportation methods (i.e., bikes), and use of the land to fulfill multiple policies including, but not limited to, agricultural mitigation and alternative transportation measures meets the policy objectives of the Davis general plan. The agricultural buffer/agricultural transition area shall be a minimum of one hundred fifty feet measured from the edge of the agricultural, greenbelt, or habitat area. Optimally, to achieve a maximum separation and to comply with the five hundred foot aerial spray setback established by the counties of Yolo and Solano, a buffer wider than one hundred fifty feet is encouraged.

(b) The minimum one hundred fifty foot agricultural buffer/agricultural transition area shall be comprised of two components: a fifty foot wide agricultural transition area located contiguous to a one hundred foot wide agricultural buffer located contiguous to the agricultural, greenbelt, or habitat area. The one hundred fifty foot
agricultural buffer/transition area shall not qualify as farmland mitigation pursuant to Article 40A.03 of this chapter.

(c) The following uses shall be permitted in the one hundred foot agricultural buffer: native plants, tree or hedge rows, drainage channels, storm retention ponds, natural areas such as creeks or drainage swales, railroad tracks or other utility corridors and any other use, including agricultural uses, determined by the planning commission to be consistent with the use of the property as an agricultural buffer. There shall be no public access to the one hundred foot agricultural buffer unless otherwise permitted due to the nature of the area (e.g., railroad tracks). The one hundred foot agricultural buffer shall be developed by the developer pursuant to a plan approved by the parks and community services director or his/her designee. The plan shall include provision for the establishment, management and maintenance of the area. The plan shall incorporate adaptive management concepts and include the use of integrated pest management techniques. The property shall be dedicated to the city in fee title, or, at the discretion of the city, an easement in favor of the city shall be recorded against the property, which shall include the requirements of this article.

(d) The following uses shall be permitted in the fifty foot agricultural transition area: bike paths, community gardens, organic agriculture, native plants, tree and hedge rows, benches, lights, trash enclosures, fencing, and any other use determined by the planning commission to be of the same general character as the foregoing enumerated uses. There shall be public access to the fifty foot agricultural transition area. The fifty foot agricultural transition area shall be developed by the developer pursuant to a plan approved by the parks and community services director or his/her designee. Once the area is improved, approved, and accepted by the parks and community services department, the land shall be dedicated to the city.

(e) The city reserves its right to form a special benefit assessment district, or other applicable district as is permitted under state law, and to maintain the agricultural buffer and transition area once the land is improved, dedicated, and annexed. (Ord. 1823 § 1; Ord. 2300 § 2, 2007)
UC Survey Team

- Holly George, UCCE
- Christy Getz, UCB
- Ellie Rilla, UCCE
- Shermain Hardesty, Small Farm Center, UCD
- Kristin Reynolds, UCD
- Penny Leff, SFC
State Agritourism Workgroup Benchmarks

- 1997 Workshops around state start
- 2000 Calagtour.org website
- 2002 State Agritourism Handbook
- 2007 White paper statewide focus
- 2009 UC Small Farm Center hires state Agtourism Coordinator
Survey Goals

- Better understand goals and needs of California agritourism operators
- Identify size and profitability of the California agritourism community
- Develop outreach programs and information to help sector operators
- Improve operator database
- Better understand goals and needs of California agritourism operators
Defining the PRODUCT

Agritourism

“Any income-generating activity conducted on a working farm or ranch for the enjoyment and education of visitors.

It includes the interpretation of the natural, cultural, historic, and environmental assets of the land and the people working on it.”

Agritourism and Nature Tourism in California (pg 3)
Survey Focus

- Types of activities
- Marketing
- Managing
- Staffing
- Profitability
- Visitors
Survey Methods

- Mixed mail list
- 1,940 surveys mailed
- Mailed February 2009
- Winery issue
- 222 respondents not involved in agritourism

\[ N = 332 \]
Responses by Region

Respondents by region

- South Coast: 53
- Central Coast: 80
- Central Valley: 67
- Foothills & Mountains: 26
- Inland Empire: 17
- North Coast: 5
- No county stated: 17
California Wine Industry

- 4th largest in world
- 2.5 billion bottles/yr
- 19.7 million winery visitors
- $2 billion in annual tourism expenditures in 2005
- 2,687 wineries
- 500,000 acres of vineyard
- Annual impact of $51.8 billion on CA economy
- $125.3 billion on the US economy annually

Source - 2005 Wine Institute Study
Wineries are remarkably effective magnets for tourism.

America's new experiential consumer' is particularly attracted to the personal connection, artisan atmosphere, rural environment and beauty of California's wineries and vineyards."

Karen Ross, California Association of Winegrape Growers
Year Started Agtourism
Motivators

Why did you open your farm/ranch to visitors?

All California

- Increase profitability: 75.2%
- Enjoy working with people: 45.3%
- Educate visitors: 63.9%
- Provide family employment: 22%
- As marketing tool: 61.5%
- Outreach to community: 41.0%
- Other: 11.3%
What direct sales are part of your agritourism operation?

All California

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percent of Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm stand with fresh produce,</td>
<td>37.6</td>
</tr>
<tr>
<td>nuts, or flowers</td>
<td></td>
</tr>
<tr>
<td>Farm stand with processed</td>
<td>17</td>
</tr>
<tr>
<td>agricultural products</td>
<td></td>
</tr>
<tr>
<td>U-Pick</td>
<td>22.7</td>
</tr>
<tr>
<td>Christmas tree sales</td>
<td>9.7</td>
</tr>
<tr>
<td>Pumpkin Patch</td>
<td>17.6</td>
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<tr>
<td>Corn Maze</td>
<td>7</td>
</tr>
<tr>
<td>Meat or cheese sales</td>
<td>9.1</td>
</tr>
<tr>
<td>Vineyard, Winery</td>
<td>21.5</td>
</tr>
<tr>
<td>Other sales</td>
<td>10.9</td>
</tr>
</tbody>
</table>
Rate the effectiveness of each type of promotion used

1 = Not Effective  5 = Highly Effective

- Chamber of Commerce: 2.7
- Agricultural organization: 3.0
- Regional guide: 3.0
- Visitors' Bureau: 3.0
- Paid advertising: 3.1
- Business card or brochure: 3.4
- Business newsletter: 3.7
- Sign outside business: 3.7
- Direct mailings: 3.9
- Website: 4.0
- Feature story: 4.0
- Word of mouth: 4.3
Marketing Expenses & Websites

Website relation to marketing spending

Spent marketing agritourism operation:
- less than $500
- $500 - $999
- $1,000 - $4,999
- $5,000 - $9,999
- $10,000 - $24,999
- $25,000 or more

Number of operations

Use a website for agritourism promotion?

- No: 3
  - $500 - $999: 10
  - $1,000 - $4,999: 1
  - $5,000 - $9,999: 1
  - $10,000 - $24,999: 1
  - $25,000 or more: 1

- Yes: 67
  - $500 - $999: 38
  - $1,000 - $4,999: 59
  - $5,000 - $9,999: 26
  - $10,000 - $24,999: 21
  - $25,000 or more: 24
Major Challenges

What are the Major Challenges for your Agritourism Operation?
1 = Not a Problem  5 = Very Challenging

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Average (mean) of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lengthening agritourism season</td>
<td>2.6</td>
</tr>
<tr>
<td>Expanding agritourism</td>
<td>2.8</td>
</tr>
<tr>
<td>Crop or animal production logistics</td>
<td>3.2</td>
</tr>
<tr>
<td>Promotion and advertising</td>
<td>2.9</td>
</tr>
<tr>
<td>Liability or insurance issues</td>
<td>3.1</td>
</tr>
<tr>
<td>Other regs &amp; legal contraints</td>
<td>3.2</td>
</tr>
<tr>
<td>Permitting and zoning</td>
<td>3.0</td>
</tr>
<tr>
<td>Availability of reliable labor</td>
<td>2.5</td>
</tr>
</tbody>
</table>
Comments on Challenges

- Money, cash flow, profitability
- Government regulations, intervention, taxes, fees
- Environmental regulations
- Insurance & liability
Permitting and Zoning Issues
Business Plan and Insurance Coverage

- 87% have insurance
- 90% of insured have at least $1 million or greater
- 24% have a business plan for the ranch
- Also have a business plan for agritourism venue
Agritourism Revenue by Activity

Average percent of agritourism revenue by activity

- All California

- Percent of revenue

- Other 2.4%
- Other 1.5%
- Nature activities 5.5%
- Events 5.2%
- Retail sales, non-ag products 3.3%
- Retail sales, ag products 45.1%
- Farm stay/B&B & breakfast 5.2%
- Corn maze/pumpkin patch 4.4%
- U-Pick 12.2%
- Farm/ranch tours & field trips 9.2%
Fees charged?

What facilities for people or special events do you offer? Do you charge a fee?

All California

Percent of Operations

- Weddings, retreats: 32.9%
- Farm stays: 22.4%
- Farm stays w/ RV: 15.1%
- RV/camping w/ fee: 10.6%
- Cabins w/ fee: 6.8%
- Cultural festivals: 5.1%
- Horse events, activities: 3.7%
- Horse events, act, camp: 2.4%
- Youth camps: 6.6%
- Other events, activities: 4.8%
Profitability Range

Operators' Rating of Agritourism Operation Profitability

7 = Highly Profitable  1 = Not at all profitable

All California

<table>
<thead>
<tr>
<th>Rating</th>
<th>Percent of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all profitable</td>
<td>16.27%</td>
</tr>
<tr>
<td>Slightly profitable</td>
<td>18.31%</td>
</tr>
<tr>
<td>More than slightly profitable</td>
<td>19.32%</td>
</tr>
<tr>
<td>Somewhat profitable</td>
<td>20.68%</td>
</tr>
<tr>
<td>Fairly profitable</td>
<td>19.66%</td>
</tr>
<tr>
<td>Somewhat highly profitable</td>
<td>2.71%</td>
</tr>
<tr>
<td>Highly profitable</td>
<td>3.05%</td>
</tr>
</tbody>
</table>

How profitable is your agritourism operation?
Challenges of Estimating Gross Income

California Census of Agriculture Stats for Agritourism
- 2002 $6.5 million 499 farms
- 2007 $35 million 685 farms

New York Stats:
- 1999 $210 million in Kuehn study 645 farms
- 2007 $17 million in Census of Ag 1,420 farms
2.4 Million Visitors in 2008

Number of Visitors/Customers to Agritourism Operation

- 25% of visitors/customers in 2008
- 26% of visitors/customers in 2008
- 12% of visitors/customers in 2008
- 18% of visitors/customers in 2008
- 20% of visitors/customers in 2008

Number of visitors/customers in 2008:
- 100 or less
- 101 to 500
- 501 to 2000
- 2001 to 20,000
- 20,001 or more
Visitor Demographics

Average percent of visitors coming from where?

All California Agritourism Operations

<table>
<thead>
<tr>
<th>Category</th>
<th>Average Percent of Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>From same county as business</td>
<td>50.03%</td>
</tr>
<tr>
<td>From other county CA</td>
<td>38.13%</td>
</tr>
<tr>
<td>From other states in US, not CA</td>
<td>7.67%</td>
</tr>
<tr>
<td>From Canada</td>
<td>0.66%</td>
</tr>
<tr>
<td>From other foreign countries</td>
<td>2.46%</td>
</tr>
</tbody>
</table>
Visitor Types

What types of visitors/ customers in 2008?

Average percent of type of visitors

- Corporate, university, gov. groups: 3.3
- Senior groups: 4.0
- School groups: 9.6
- Teens/young adults: 3.2
- Families: 33.0
- Adults without children: 43.6
Future Plans

What plans do you have for your agritourism operation over the next five years?

All California

- Expand or diversify experiences or products: 63.7%
- Reduce experiences or products: 3.6%
- Invest more in agritourism: 37.4%
- Go out of business: 4%
- Hire more employees: 13.4%
- Maintain current income: 23.1%
Conclusions

- Initial analysis stage
- Correlate with wineries
- Share with operators, agencies, universities, tourism industry, local government
- Journal articles
17.14.190 Ranch Marketing

A. Purpose. The purpose of this section is to provide for the development of ranch marketing activities to encourage the economic development of the agricultural and tourism industries while regulating such uses to protect the public health, safety and welfare and the enjoyment of property by adjacent landowners.

B. Ranch marketing activities permitted. The following ranch marketing activities shall be permitted as set forth below in SA-10, Select Agricultural, PA, Planned Agricultural, AE, Exclusive Agricultural on individual parcels that contain ten (10) acres or more and have a minimum of five (5) acres of permanent agricultural crop in production or ten (10) acres of annual crop in production that are properly maintained and cared for to produce a commercial crop, and provided they are held concurrently with the sale of on-site produced agricultural products. Ranch marketing shall be permitted in AP zone districts by special use permit. Should the proper maintenance and care of the required minimum agricultural crop acreage cease, as determined by the El Dorado County Agricultural Commissioner, the right to operate any of the following accessory uses becomes void:

1. Permitted by right:
   a. Picnic areas for daylight use;
   b. The display and sale of handicrafts and agricultural promotional items produced on-site or off-site, provided that the primary product sold is an agricultural product produced by the owner of the subject parcel. Sales shall be subject to available parking as set forth in subsection 17.14.180(C). All vendors shall have a current El Dorado County business license. Vendors may use the site for overnight RV camping during the time that said vendor occupies a sales booth or stall, subject to applicable health and safety standards as may be required by state and County regulations;
   c. Gift display and sales area, not including handicrafts, not to exceed a total of 500 square feet of interior floor space, for the retail sale of agricultural related promotional items, gift items, and/or pre-packaged goods. The gift display and sales area shall be operated concurrently with the sale of agricultural products and/or byproducts produced on site. Sales shall be subject to available parking as set forth in subsection 17.36.260(E). All vendors shall have a current County business license. Non-handicraft items, such as agricultural related promotional items, gift items, and/or pre-packaged goods, may continue to be sold under this subsection for a period of up to one (1) year following the implementation of this ordinance and must be terminated thereafter unless allowed pursuant to this ordinance.
   d. Bake shop operated concurrently with the sale of on-site produced agricultural products and agricultural byproducts. Food items, where the principle ingredient of the food are not grown on the premises, may be made and/or sold for one (1) year following the implementation of this ordinance, except as otherwise provided for in this ordinance;
   e. Prepared food stand operated concurrently with the sale of on-site produced agricultural products and byproducts;
   f. Special events for commercial purposes not to exceed 125 persons with the number of events not exceeding the following limits:
      i. Parcels less than 20 acres in size - 6 per year;
ii. Parcels 20 acres or more in size - 12 per year;

iii. All Special events shall be subject to available parking as set forth in subsection 17.14.180(C).

g. Marketing promotional events promoting the agricultural operation on the parcel on which the event is held, subject to available parking as set forth in subsection 17.36.260(E). (For the purpose of this section, a marketing promotional event is defined as events sponsored by the property owner, an association of agricultural property owners, or similar non-profit organizations formed to assist the agricultural industry in the area, to promote the sale of agricultural products and byproducts and which is intended to benefit the agricultural use of the site and/or the agricultural region. No single event shall exceed three (3) consecutive days);

h. The sale of alcoholic beverages made from agricultural products produced on-site. This section shall not prohibit the sale of alcoholic beverages processed off site, provided that the alcoholic beverage includes only agricultural products grown on site;

i. Agricultural-related museums;

j. Agricultural Homestays, as defined under Section 113870(a)(2) of the California Health and Safety Code, on parcels containing ten (10) acres or larger, with no limitation on the time of operation;

k. Parcels containing ten (10) acres or larger may have one additional unlighted sign, located on-site, advertising authorized activities. The sign's display area shall not exceed sixteen (16) square feet on either sign face, with a total not greater than thirty-two (32) square feet for a double-faced sign.

2. The following uses shall be permitted subject of site plan review approval by the Planning Director, following the recommendation of the Agricultural Commission, on individual parcels that contain ten (10) acres or more and have a minimum of five (5) acres of permanent agricultural crop in production or ten (10) acres of annual crop in production that are properly maintained and cared for to produce a commercial crop. Should the proper maintenance and care of the required minimum agricultural crop acreage cease, as determined by the El Dorado County Agricultural Commissioner, the right to operate any of the following accessory uses becomes void:

a. Gift display and sales area, not including handicrafts, in excess of 500 square feet, but less than 1,000 square feet of interior floor space, for the retail sale of agricultural related promotional items, gift items, and/or pre-packaged goods. The gift display and sales area shall be operated concurrently with the sale of agricultural products and/or byproducts produced on site. Sales shall be subject to available parking as set forth in subsection 17.36.260(E). All vendors shall have a current County business license. Sale of agricultural related promotional items, gift items, and/or pre-packaged goods, other than handicraft items, may be sold for up to one (1) year following the implementation of this ordinance without restriction to floor space and must be terminated thereafter unless allowed pursuant to this ordinance.

b. Special events for commercial purposes over 125 persons but 250 or fewer persons, subject to available parking as set forth in subsection 17.14.180(C) below, with the number of events not exceeding the following limits:
i. Parcels less than 20 acres in size - 6 per year;

ii. Parcels 20 acres or more in size - 12 per year;

iii. All Special events, weddings, and similar functions shall be subject to the development standards set forth in subsection C.

c. The site plan review approval may set forth limitations on the capacity of the accessory uses.

d. Agricultural Homestays, as defined under Section 113870(a)(2) of the California Health and Safety Code, on parcels containing ten (10) acres or less, may be permitted subject to site plan review approval by the Planning Director, following the recommendation of the Agricultural Commission, provided the parcel has a minimum of five (5) acres of permanent agricultural crop in production that are properly maintained and cared for to produce a commercial crop, with no limitation on the time of operation.

3. Permitted by special use permit:

a. The packing, processing and/or sale of agricultural products and byproducts produced off-site and any accessory structures on parcels containing less than ten (10) acres;

b. Use of special attractions for commercial purposes such as, but not limited to, music festivals, concerts, carnivals, or other nonagricultural activities subject to available parking as set forth in subsection 17.36.260(E);

c. Signs in excess of that permitted by right, including flags, banners, balloons and other temporary signs;

d. Bed and Breakfarts and other lodging facilities, other than Agricultural Homestays;

e. Dining facility (not including a prepared food stand);

f. RV or overnight camping site for commercial purposes;

g. Commercial recreational uses and facilities to be operated concurrently with the sales season of on-site produced agricultural products and byproducts;

h. Those uses provided by right that are not otherwise allowed on parcels of less than ten (10) acres may be authorized by special use permit;

i. Special events for commercial purposes in excess of 250 persons for the sale of gift items and/or pre-packaged goods;

j. Gift display and sales area, not including handicrafts, in excess of 1,000 square feet of interior floor space, for the retail sale of agricultural related promotional items, gift items, and/or pre-packaged goods. The gift display and sales area shall be operated concurrently with the sale of agricultural products and/or byproducts produced on-site. All vendors shall have a current El Dorado County business license. Sale of agricultural related promotional items, gift items, and/or pre-packaged goods, other than handicap items, may be sold for up to one (1) year following the implementation of this ordinance without restriction to floor space and must be terminated thereafter unless allowed pursuant to this ordinance.
k. All ranch marketing uses in the AP, Agricultural Preserve zone.

C. Development Standards: The following standards shall apply to all ranch marketing activities set forth above:

1. Parking
   
   a. Permanent parking spaces, may be of dirt or gravel surface, shall be provided for all sales, gift, handicraft and food service areas pursuant to the provisions of Chapter 17.18, Parking;
   
   b. Parking for special events, weddings, marketing promotional events, and similar functions may utilize temporary, overflow parking areas. Limitations on the number of guests may be based on availability of off-street parking. Overflow parking areas may be of dirt or gravel surface, provided that the parking area is fire safe;
   
   c. On-street parking shall not be permitted.

   
   a. The access to the ranch marketing facility shall be connected directly to a public road, except as provided below.
   
   b. Where a proposed ranch marketing facility is located on a private road and is within general plan designated Agricultural District boundaries, access shall be subject to the review and approval by the Planning Director under site plan review, following a recommendation by the Agricultural Commission.
   
   c. Where a proposed ranch marketing facility is located on a private road and is outside general plan designated agricultural district boundaries, a special use permit shall be required.

3. Proposed ranch marketing facilities that do not meet the standards set forth above may be considered by special use permit pursuant to Chapter 17.22. (Ord. 4573 (part) 2001)
Diversification is one way to maintain a thriving agricultural business model. As more and more farmers try to make ends meet, many have looked at different ways of using their land while keeping acreage in farming or ranching and maintaining the rural culture that is so important to Yolo County. Some of these opportunities include the development of Agritourism venues, such as farm stores and Bed & Breakfasts, and encouraging farm tours and festivals that celebrate the fruits of our county.

<table>
<thead>
<tr>
<th>Agricultural Activity</th>
<th>Applicable Zoning</th>
<th>Typical Yolo County Permits</th>
<th>Page Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winery w/ Tasting Room</td>
<td>M M OTC</td>
<td>Major Conditional Use&lt;br&gt;Building&lt;br&gt;Septic Systems &amp; Wells</td>
<td>11</td>
</tr>
<tr>
<td>Tasting room</td>
<td>m m m OTC</td>
<td>Minor Conditional Use&lt;br&gt;Building&lt;br&gt;Septic Systems &amp; Wells</td>
<td>13</td>
</tr>
<tr>
<td>Bed &amp; Breakfast</td>
<td>m M m OTC</td>
<td>Operating Permit &amp; Inspections&lt;br&gt;Certified Food Handler</td>
<td>15</td>
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<tr>
<td>Food Preparation</td>
<td>m m m OTC</td>
<td>Operating Permit &amp; Inspection&lt;br&gt;Certified Food Handler</td>
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<tr>
<td>U-Pick Farms</td>
<td>OTC OTC m</td>
<td>Public water Supply&lt;br&gt;Scale Inspection</td>
<td>19</td>
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<tr>
<td>Roadside Stand</td>
<td>OTC OTC m</td>
<td>Building&lt;br&gt;Scale Inspection</td>
<td>21</td>
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<tr>
<td>Yolo Store or Grower Cooperative</td>
<td>m m m OTC</td>
<td>Minor Conditional Use&lt;br&gt;Building&lt;br&gt;Fruit, Nut, Vegetable Standardization</td>
<td>23</td>
</tr>
</tbody>
</table>

* >10% of floor space for retail
** <10% but >25% of floor space for retail
<table>
<thead>
<tr>
<th>Agricultural Activity</th>
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<tr>
<td></td>
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<td>Change of Occupancy permit for more than 5 rooms of lodging</td>
<td>27</td>
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<tr>
<td></td>
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<td>Food Handlers Certificate</td>
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<td>Social Gatherings &amp; Historic Resource Uses</td>
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OTC-Over the Counter
m-Minor Conditional Use Permit
M-Major Conditional Use Permit
C-Conditional Use Permit
L-license
Shading – not allowed without variance
Wineries (with tasting room)

Planning Department
Wineries with tasting rooms are allowed in A-1/A-E, A-P, AGI, M-1, and M-2.

Over the counter review-AGI, M-1*, M-2*
*retail component cannot exceed 10% of the gross floor area
Major conditional use permit-A-1/A-E, A-P
Conditional Use Permit-M-1**, M-2**
**retail component is more than 10% but less than 25% of the gross floor area

This permit application is reviewed by the Zoning Administrator or Planning Commission and requires:
- Application fees
- Application Form
- Environmental/Project Site Questionnaire
- Detailed Description of the proposed project
- Location Map
- Site Plan
- Building Elevations
- Drainage Plans
- One 81/2 x 11 reduction of all maps, plans, etc.
- Photos (prints/slides) if applicable
- Assessor’s Parcel Map
- Surrounding Property Owners List
- Preliminary Title Report or Copy of Deed
*Additional information may be required depending on the nature of the project
For more information, contact the Planning Department or call 530.666.8775.

Building Division
The permit process varies by project so please contact Development Services to review your project. Most applications will require:
- Six (6) sets of construction drawings
- Plot/Site Plan
- Architectural & Structural Plans
- Structural Calculations
- Two (2) “wet signed” Title 24 Energy Calculations (if applicable)
- Disabled Access plan
- Four (4) sets of Fire Sprinklers plans and two (2) sets of Hydraulic Calculations (if applicable)
- Plumbing, Mechanical, & Electrical plans
- Civil Drawings
- Landscape drawings
- Food Equipment Plan and Facility Related Requirements
- Fire and Life Safety plan
This process can last anywhere from 2-4 weeks on average with more time being necessary depending on the preparedness of the plan. It also might be necessary to obtain a grading permit if
soil will be imported/exported and/or displaced. For more information, contact the [Building Division](#) or call 530.666.8775.

**Public Works Division**  
Encroachment permits are required for any work proposed in the county right-of-way or road easement. For more information, contact the [Public Works Division](#) or call 530.666.8728.

**Environmental Health Division**

Environmental Health is in charge of the permitting process for water wells and septic systems which enable the proper disposal of domestic wastewater. A detailed site plan is necessary when applying for a construction permit for a septic system. It is wise to work concurrently with the planning Department on siting a well and septic system. The cooperation between the two departments will allow an applicant to move forward on a project without unexpected problems related to the parcel.

Throughout the building process and during operation, the winery and tasting areas will be subject to inspection by the Environmental Health Division if any food is prepared on site. An Operating Permit and an inspection by Environmental Health are required. This permit must be renewed on an annual basis. It is also necessary to have one person, either an owner or manager or someone with training capabilities become a Certified Food Handler. This can be done through different private companies which provide training and certification.

If the site provides water to 25 people at least 60 days a year, a Public Water Supply permit is necessary. This can be obtained through the Environmental Health Division. For more information, contact the [Environmental Health Division](#) or call 530.666.8646.

**Non-County Agencies**

Winery wastewater disposal is regulated by the [California Regional Water Quality Control Board](#). An example of what the RWQCB requires for a winery is an on-site holding tank for processing waste in conjunction with hauling to a municipal treatment plant. This is necessary because the nature and the volume of the waste make it incompatible with a domestic septic system.

Winery must be bonded through the [Federal Alcohol Tax and Trade Bureau](#) (TTB). The TTB is authorized to protect the income from taxes of wineries by requiring registration and bonding of a plant.

Winery must also be licensed to serve and sell alcohol through the [California Department of Alcoholic Beverage Control](#).
Tasting Room

Planning Department
Tasting Rooms are allowed in A-1/A-E, A-P, AGI, C-2, C-3, and WF zoning.

Over the counter review-C-2, C-3
Minor conditional use permit-A-1/A-E, A-P, AGI
Conditional use permit-WF

This permit application is reviewed by the Zoning Administrator and requires:
- Application fees
- Application Form
- Environmental/Project Site Questionnaire
- Detailed Description of the proposed project
- Location Map
- Site Plan
- Building Elevations
- Drainage Plans
- One 8 1/2 x 11 reduction of all maps, plans, etc.
- Photos (prints/slides) if applicable
- Assessor’s Parcel Map
- Surrounding Property Owners List
- Preliminary Title Report or Copy of Deed

*Additional information may be required depending on the nature of the project
For more information, contact the Planning Department or call 530.666.8775.

Building Division
The permit process varies by project so please contact Development Services to review your project. Most applications will require:
- Six (6) sets of construction drawings
- Plot/Site Plan
- Architectural & Structural Plans
- Structural Calculations
- Two (2) “wet signed” Title 24 Energy Calculations (if applicable)
- Disabled Access plan
- Four (4) sets of Fire Sprinklers plans and two (2) sets of Hydraulic Calculations (if applicable)
- Plumbing, Mechanical, & Electrical plans
- Civil Drawings
- Landscape drawings
- Food Equipment Plan and Facility Related Requirements
- Fire and Life Safety plan

This process can last anywhere from 2-4 weeks on average with more time being necessary depending on the preparedness of the plan. It also might be necessary to obtain a grading permit if soil will be imported/exported and/or displaced. For more information, contact the Building Division or call 530.666.8775.
Public Works Division
Encroachment permits are required for any work proposed in the county right-of-way or road easement. For more information, contact the Public Works Division or call 530.666.8728.

Environmental Health Division
Environmental Health is in charge of the permitting process for water wells and septic systems which enable the proper disposal of domestic wastewater. A detailed site plan is necessary when applying for a construction permit for a septic system. It is wise to work concurrently with the planning department on siting a well and septic system. The cooperation between the two departments will allow an applicant to move forward on a project without unexpected problems related to the parcel.

If the site provides water to 25 people at least 60 days a year, a Public Water Supply permit is necessary. This can be obtained through the Environmental Health Division. For more information, contact the Environmental Health Division or call 530.666.8646.

Non-County Agencies
Tasting rooms must be licensed to serve and sell alcohol through the California Department of Alcoholic Beverage Control.
Bed & Breakfast

Planning Department
Bed & Breakfasts are allowed in A-1/A-E, A-P, AGI, C-2, C-3, C-H, and WF.

Over the counter review-C-2, C-3, C-H
Minor conditional use permit-A-1/A-E, AGI
Major conditional use permit-A-P
Conditional use permit-WF

These permit applications are reviewed by the Zoning Administrator or Planning Commission and require:
- Application fees
- Application Form
- Environmental/Project Site Questionnaire
- Detailed Description of the proposed project
- Location Map
- Site Plan
- Building Elevations
- Drainage Plans
- One 8 1/2 x 11 reduction of all maps, plans, etc.
- Photos (prints/slides) if applicable
- Assessor’s Parcel Map
- Surrounding Property Owners List
- Preliminary Title Report or Copy of Deed

*Additional information may be required depending on the nature of the project

For more information, contact the Planning Department or call 530.666.8775.

Building Division
The permit process varies by project so please contact Development Services to review your project. Most applications will require:
- Six (6) sets of construction drawings
- Plot/Site Plan
- Architectural & Structural Plans
- Structural Calculations
- Two (2) “wet signed” Title 24 Energy Calculations (if applicable)
- Disabled Access plan
- Four (4) sets of Fire Sprinklers plans and two (2) sets of Hydraulic Calculations (if applicable)
- Plumbing, Mechanical, & Electrical plans
- Civil Drawings
- Landscape drawings
- Food Equipment Plan and Facility Related Requirements
- Fire and Life Safety plan

This process can last anywhere from 2-4 weeks on average with more time being necessary depending on the preparedness of the plan. It also might be necessary to obtain a grading permit if
soil will be imported/exported and/or displaced. For more information, contact the Building Division or call 530.666.8775.

**Public Works Division**

Encroachment permits are required for any work proposed in the county right-of-way or road easement. For more information, contact the Public Works Division or call 530.666.8728.

**Environmental Health Division**

Bed & Breakfasts and Farm Stay establishments have limited meal service and can meet more relaxed commercial kitchen guidelines. Applicant must demonstrate that the facility meets the food facility modified structural requirements as indicated on the Environmental Health website, which can be found at [http://www.yolocounty.org/Index.aspx?page=92#Bed%20&%20Breakfast](http://www.yolocounty.org/Index.aspx?page=92#Bed%20&%20Breakfast). This can be accomplished by submitting plans of the food preparation, storage and service areas, or provide pictures of these areas or have these areas inspected by the Environment Health Division.

Demonstrate that the facility meets the drinking water standards by demonstrating the water meets the bacteriological and nitrate drinking water standards. Applicants may obtain their own samples and have them tested at any California Certified laboratory. If the site provides water to 25 people at least 60 days a year, a Public Water Supply permit is necessary. This can be obtained through the Environmental Health Division.

Farm Stays must have a properly functioning septic system to handle bathroom and kitchen waste. If the septic system was installed without County permits, it would need to be inspected, evaluated and documented by a septic engineer.

Submit an application and fees for a Health Permit from Environmental Health. The permit is good for one year, and will be reviewed annually provided the facility continues to meet the requirements for a food facility pursuant to the California Retail Food Code including all exemptions for Bed & Breakfast facilities. Water testing will be required annually, food safety certification must be maintained current, and all plans must be approved for any future changes or remodels to the food preparations, storage or service areas.

Throughout the building process and during operation, the kitchen will be subject to inspections by the Environmental Health Division. An Operating Permit and an inspection by Environmental Health are required. This permit must be renewed on an annual basis. It is also necessary to have one person, either an owner or manager or someone with training capabilities become a Certified Food Handler. This can be done through different private companies which provide training and certification. For more information, contact the Environmental Health Division or call 530.666.8646.
Food Preparation

Planning Department
Food Preparation is allowed in land zoned A-1/A-E, A-P, AGI, C-2, C-3, C-H, and WF.

Over the counter review-C-2, C-3, C-H, WF
Minor conditional use permit-A-1/A-E, A-P, AGI

These permit applications are reviewed by the Zoning Administrator and require:

- Application fees
- Application Form
- Environmental/Project Site Questionnaire
- Detailed Description of the proposed project
- Location Map
- Site Plan
- Building Elevations
- Drainage Plans
- One 8 1/2 x 11 reduction of all maps, plans, etc.
- Photos (prints/slides) if applicable
- Assessor’s Parcel Map
- Surrounding Property Owners List
- Preliminary Title Report or Copy of Deed

*Additional information may be required depending on the nature of the project
For more information, contact the Planning Department or call 530.666.8775.

Building Division
The permit process varies by project so please contact Development Services to review your project. Most applications will require:

- Six (6) sets of construction drawings
- Two (2) Plot/Site Plans
- Architectural & Structural Plans
- Structural Calculations
- Two (2) “wet signed” Title 24 Energy Calculations (if applicable)
- Disabled Access plan
- Four (4) sets of Fire Sprinklers plans and two (2) sets of Hydraulic Calculations (if applicable)
- Plumbing, Mechanical, & Electrical plans
- Civil Drawings
- Landscape drawings
- Food Equipment Plan and Facility Related Requirements
- Fire and Life Safety plan

This process can last anywhere from 2-4 weeks on average with more time being necessary depending on the preparedness of the plan. It also might be necessary to obtain a grading permit if soil will be imported/exported and/or displaced. For more information, contact the Building Division or call 530.666.8775.
Public Works Division

Encroachment permits are required for any work proposed in the county right-of-way or road easement. For more information, contact the Public Works Division or call 530.666.8728.

Environmental Health Division

Environmental Health is in charge of the permitting process for water wells and septic systems which enable the proper disposal of domestic wastewater. A detailed site plan is necessary when applying for a construction permit for a septic system. It is wise to work concurrently with the planning department on siting a well and septic system. The cooperation between the two departments will allow an applicant to move forward on a project without unexpected problems related to the parcel.

Throughout the building process and during operation, the kitchen will be subject to inspections by the Environmental Health Division. An Operating Permit and an inspection by Environmental Health are required. This permit must be renewed on an annual basis. It is also necessary to have one person, either an owner or manager or someone with training capabilities become a Certified Food Handler. This can be done through different private companies which provide training and certification. For more information, contact the Environmental Health Division or call 530.666.8646.

Bed & Breakfasts and Farm Stay establishments with limited meal service can meet more relaxed commercial kitchen guidelines. If you have this type of operation, please consult the appropriate section of this manual, or http://www.yolocounty.org/Index.aspx?page=92.
U-Pick farms

Planning Department
U-Pick farms are allowable in land zoned A-1/A-E, A-P, and AGI.

Over the counter review-A-1/A-E, A-P
Minor conditional use permit-AGI

This permit application is reviewed by the Zoning Administrator and requires:
- Application fees
- Application Form
- Environmental/Project Site Questionnaire
- Detailed Description of the proposed project
- Location Map
- Site Plan
- Building Elevations
- Drainage Plans
- One 8 1/2 x 11 reduction of all maps, plans, etc.
- Photos (prints/slides) if applicable
- Assessor’s Parcel Map
- Surrounding Property Owners List
- Preliminary Title Report or Copy of Deed

*Additional information may be required depending on the nature of the project
For more information, contact the Planning Department or call 530.666.8775.

Environmental Health Division
If the site provides water to 25 people at least 60 days a year, a Public Water Supply permit is necessary. This can be obtained through the Environmental Health Division. For more information, contact the Environmental Health Division or call 530.666.8646.

Agriculture Department
U-pick farms are subject to regulations through the Agriculture and Weights & Measures Department. All U-pick farms are required to have scales inspected by Agriculture and Weights & Measures. For more information, contact the Agriculture Department or call 530.666.8140.
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Roadside Stand

Roadside Stands are allowable in land zoned A-1/A-E, A-P, AGI, and C-H.

Over the counter review - A-1/A-E, A-P, C-H
Minor conditional use permit - AGI

This permit application is reviewed by the Zoning Administrator and requires:
- Application fees
- Application Form
- Environmental/Project Site Questionnaire
- Detailed Description of the proposed project
- Location Map
- Site Plan
- Building Elevations
- Drainage Plans
- One 8 1/2 x 11 reduction of all maps, plans, etc.
- Photos (prints/slides) if applicable
- Assessor’s Parcel Map
- Surrounding Property Owners List
- Preliminary Title Report or Copy of Deed

*Additional information may be required depending on the nature of the project
For more information, contact the Planning Department or call 530.666.8775.

Building Division

The following regulations are required for the construction of a new building to be used as a roadside stand. If using an existing building or a temporary structure, there may be fewer regulations. It is important to contact the Building Division to learn more.

Temporary stands located on A-1/A-E, A-P or AGI zoned land may be eligible for the Agricultural Building Permit Exemption. Approval is still necessary but the process is reduced to an over the counter review with minimal permit fees and no inspections. The applicant must have a Scaled Plot Plan, written approval from local Fire Dept., and a completed Owner’s Agreement. If the property is less than five acres, Environmental Health must approve the application and plot plan.

The permit process varies by project so please contact Development Services to review your project. Most applications will require:
- Six (6) sets of construction drawings
- Plot/Site Plan
- Architectural & Structural Plans
- Structural Calculations
- Two (2) “wet signed” Title 24 Energy Calculations (if applicable)
- Disabled Access plan
- Four (4) sets of Fire Sprinklers plans and two (2) sets of Hydraulic Calculations (if applicable)
- Plumbing, Mechanical, & Electrical plans
- Civil Drawings
Landscape drawings
Food Equipment Plan and Facility Related Requirements
Fire and Life Safety plan
This process can last anywhere from 2-4 weeks on average with more time being necessary depending on the preparedness of the plan. It also might be necessary to obtain a grading permit if soil will be imported/exported and/or displaced. For more information, contact the Building Division or call 530.666.8775.

Public Works Division
Encroachment permits are required for any work proposed in the county right-of-way or road easement. For more information, contact the Public Works Division or call 530.666.8728.

Environmental Health Division
Environmental Health is in charge of the permitting process for water wells and septic systems which enable the proper disposal of domestic wastewater. A detailed site plan is necessary when applying for a construction permit for a septic system. It is wise to work concurrently with the planning department on siting a well and septic system. The cooperation between the two departments will allow an applicant to move forward on a project without unexpected problems related to the parcel.

If the site provides water to 25 people at least 60 days a year, a Public Water Supply permit is necessary. This can be obtained through the Environmental Health Division. For more information, contact the Environmental Health Division or call 530.666.8646.

Agriculture Department
Roadside stands are subject to regulations through the Agriculture and Weights & Measures Department. Roadside stands which purchase products for resale are subject to on-site Fruit, Nut, Vegetable Standardization Requirements through inspection. This regulation does not apply to stands located on or near the point of production. All roadside stands are required to have scales inspected by Agriculture and Weights & Measures. For more information, contact the Agriculture Department or call 530.666.8140.
Yolo Store or Growers Cooperative

Planning Department
A Yolo store is allowable in land zoned A-1/A-E, A-P, AGI, C-2, C-3, C-H, and WF.

Over the counter review-C-2, C-3, C-H
Minor conditional use permit-A-1/A-E, A-P, AGI
Conditional Use Permit-WF

Additional discussions with the City of Davis will be required if the intended Yolo Store is located within three miles of Davis City limits. Contact the Economic Development Division if this applies.

These permit applications are reviewed by the Zoning Administrator or Planning Commission and require:
- Application fees
- Application Form
- Environmental/Project Site Questionnaire
- Detailed Description of the proposed project
- Location Map
- Site Plan
- Building Elevations
- Drainage Plans
- One 8 1/2 x 11 reduction of all maps, plans, etc.
- Photos (prints/slides) if applicable
- Assessor’s Parcel Map
- Surrounding Property Owners List
- Preliminary Title Report or Copy of Deed
*Additional information may be required depending on the nature of the project
For more information, contact the Planning Department or call 530.666.8775.

Building Division
The permit process varies by project so please contact Development Services to review your project. Most applications will require:
- Six (6) sets of construction drawings
- Plot/Site Plan
- Architectural & Structural Plans
- Structural Calculations
- Two (2) “wet signed” Title 24 Energy Calculations (if applicable)
- Disabled Access plan
- Four (4) sets of Fire Sprinklers plans and two (2) sets of Hydraulic Calculations (if applicable)
- Plumbing, Mechanical, & Electrical plans
- Civil Drawings
- Landscape drawings
- Food Equipment Plan and Facility Related Requirements
- Fire and Life Safety plan
This process can last anywhere from 2-4 weeks on average with more time being necessary depending on the preparedness of the plan. It also might be necessary to obtain a grading permit if soil will be imported/exported and/or displaced. For more information, contact the Building Division or call 530.666.8775.

Public Works Division
Encroachment permits are required for any work proposed in the county right-of-way or road easement. For more information, contact the Public Works Division or call 530.666.8728.

Environmental Health Division
Environmental Health is in charge of the permitting process for water wells and septic systems which enable the proper disposal of domestic wastewater. A detailed site plan is necessary when applying for a construction permit for a septic system. It is wise to work concurrently with the planning department on siting a well and septic system. The cooperation between the two departments will allow an applicant to move forward on a project without unexpected problems related to the parcel.

Throughout the building process and during operation, the Yolo Store will be subject to inspections by the Environmental Health Division. An Operating Permit and an inspection by Environmental Health are required. This permit must be renewed on an annual basis. If food is prepared on-site, it is also necessary to have one person, either an owner or manager or someone with training capabilities become a Certified Food Handler. This can be done through different private companies which provide training and certification. For more information, contact the Environmental Health Division or call 530.666.8646.

Agriculture Department
Yolo Stores are subject to regulations through the Agriculture and Weights & Measures Department. Yolo Stores which purchase products for resale are subject to on-site Fruit, Nut, Vegetable Standardization Requirements through inspection. This regulation does not apply to stores located on or near the point of production. All Yolo Stores are required to have scales inspected by Agriculture and Weights & Measures. For more information, contact the Agriculture Department or call 530.666.8140.
Farmer’s Market
To start a Farmer’s Market, a person must be either a grower or a Non-profit organization.

Environmental Health Division
It is necessary to obtain a Farmer’s Market health permit. This permit acts as an umbrella, eliminating the need for individual permits for each vendor. This permit requires a safe potable water source, waste disposal plan, and other factors.

Any booth owner who is preparing and serving food to be consumed on site will need to also obtain an individual health permit. For more information, contact the Environmental Health Division or call 530.666.8646.

Agriculture Department
To become a certified Farmer’s Market, it is necessary to obtain a Farmer’s Market Certificate which requires specific information about the location and timing of the Farmer’s Market and a set of bylaws as defined by the California Administrative Code 1.392 Title 3 Food and Agriculture. The Agriculture Department will also inspect the site on occasion to insure that the requirements set forth in the bylaws are upheld.

To participate in the Farmer’s Market, a grower needs a Certified Producers Certificate from his/her home county. This is obtained through the Agriculture Department and details:

- Field location
- Commodities grown
- Anticipated harvest dates
- Number of acres or rows of each commodity

If the Farmer’s Market is certified organic, additional certification may be necessary from the Agriculture Department. For more information, contact the Agriculture Department or call 530.666.8140.
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Farm Stays, Farm Tours, & Seasonal Farm Events

Farm Stays are accommodations on small farms where agriculture is still the primary business. Typically guests stay in the same residence as the farmers and ranchers. Already popular in Europe and Canada, this newer enterprise is gaining recognition in California as more and more people are looking for rural experiences during their vacations. Currently, Yolo County requires farmers and ranchers to obtain a business license from the Planning and Public Works Department if they want to engage in this kind of enterprise.

A building permit is not required for a Farm Stay if using a single family dwelling where six or fewer rooms are used for lodging, with a maximum of 15 guests at a given time. With a greater number of lodging rooms, a “change of occupancy” permit would be required. Please visit the Yolo County website at http://www.yolocounty.org/Index.aspx?page=843 for more information.

Farm and Winery Tours are allowable without any applications or permitting necessary.

To operate a seasonal farm event, like pumpkin patches and corn mazes, a business license must be obtained from the Planning and Public Works Department.

For the complete food service and kitchen guidelines for an Agricultural Homestay Food Establishment, please consult http://www.yolocounty.org/Index.aspx?page=92.

Building Division

Farm Stays are allowed in _to be determined_____ zoning
Over the Counter review- -- to be determined
Minor Conditional Use Permit- WF, to be determined
Major Conditional Use Permit- to be determined

Physical improvements made in regard to these operations require a building permit. The permit process varies by project so please contact Development Services to review your project. Most applications will require:

- Six (6) sets of construction drawings
- Plot/Site Plan
- Architectural & Structural Plans
- Structural Calculations
- Two (2) “wet signed” Title 24 Energy Calculations (if applicable)
- Disabled Access plan
- Four (4) sets of Fire Sprinklers plans and two (2) sets of Hydraulic Calculations (if applicable)
- Plumbing, Mechanical, & Electrical plans
- Civil Drawings
- Landscape drawings
- Food Equipment Plan and Facility Related Requirements
- Fire and Life Safety plan

This process can last anywhere from 2-4 weeks on average with more time being necessary depending on the preparedness of the plan. It also might be necessary to obtain a grading permit if soil will be imported/exported and/or displaced. For more information, contact the Building Division or call 530.666.8775.
Environmental Health Division
The Environmental Health Division requires that the facility is demonstrated as a part of the farm by providing a statement from the Agricultural Commissioner pursuant to Section 52262 of the Food and Agriculture Code, or evidence of agricultural production with annual sales of agricultural products of $1,000 or more.

Farm Stay establishments and Bed & Breakfasts have limited meal service and can meet more relaxed commercial kitchen guidelines. Applicant must demonstrate that the facility meets the food facility modified structural requirements as indicated on the Environmental Health website, which can be found at http://www.yolocounty.org/Index.aspx?page=92#Bed%20&%20Breakfast. This can be accomplished by submitting plans of the food preparation, storage and service areas, or provide pictures of these areas or have these areas inspected by the Environment Health Division.

Demonstrate that the facility meets the drinking water standards by demonstrating the water meets the bacteriological and nitrate drinking water standards. Applicants may obtain their own samples and have them tested at any California Certified laboratory. If the site provides water to 25 people at least 60 days a year, a Public Water Supply permit is necessary. This can be obtained through the Environmental Health Division.

Farm Stays must have a properly functioning septic system to handle bathroom and kitchen waste. If the septic system was installed without County permits, it would need to be inspected, evaluated and documented by a septic engineer.

Submit an application and fees for a Health Permit from Environmental Health. The permit is good for one year, and will be reviewed annually provided the facility continues to meet the requirements for a food facility pursuant to the California Retail Food Code including all exemptions for Bed & Breakfast facilities. Water testing will be required annually, food safety certification must be maintained current, and all plans must be approved for any future changes or remodels to the food preparations, storage or service areas.

Throughout the building process and during operation, the kitchen will be subject to inspections by the Environmental Health Division. An Operating Permit and an inspection by Environmental Health are required. This permit must be renewed on an annual basis. It is also necessary to have one person, either an owner or manager or someone with training capabilities become a Certified Food Handler. This can be done through different private companies which provide training and certification. For more information, contact the Environmental Health Division or call 530.666.8646.
Social Gatherings & Historic Resource Uses

Social Gathering spots and reception areas may require conditional use permits depending on the regularity of the events. Typical events that could be held at these places include weddings and fundraising events. It is important to contact the Planning Department staff to discuss your unique project and to find out which regulations apply. Whether using existing historic buildings or new buildings constructed for social gatherings, it is necessary that the structures be built in accordance with Yolo County code. For more information, contact the Planning Department or call 530.666.8775.

Yolo County code defines “Historic Resources” as all resources listed on the Yolo County Historic Resources Survey as well as any object, building, structure, site, area, or place which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, natural vegetation, educational, social, political, maritime, religious, aesthetic, ethnic, military or cultural annals of Yolo County.

Planning Department

Social Gatherings & Historic Resource Uses are allowable in A-1/A-E, A-P, AGI, C-2, C-3, and WF zones.

Over the counter review-C-2, C-3, A-1/A-E (with 15 or fewer outdoor events per year and no new permanent structures)

Minor conditional use permit-A-1/A-E (over 15 events/year or new permanent structures), A-P, AGI

Conditional use permit-WF

This permit application is reviewed by the Zoning Administrator or Planning Commission and requires:
- Application fees
- Application Form
- Environmental/Project Site Questionnaire
- Detailed Description of the proposed project
- Location Map
- Site Plan
- Building Elevations
- Drainage Plans
- One 8 1/2 x 11 reduction of all maps, plans, etc.
- Photos (prints/slides) if applicable
- Assessor’s Parcel Map
- Surrounding Property Owners List
- Preliminary Title Report or Copy of Deed

*Additional information may be required depending on the nature of the project

For more information, contact the Planning Department or call 530.666.8775.

Building Division

The permit process varies by project so please contact Development Services to review your project. Most applications will require:
- Six (6) sets of construction drawings
Plot/Site Plan
Architectural & Structural Plans
Structural Calculations
Two (2) “wet signed” Title 24 Energy Calculations (if applicable)
Disabled Access plan
Four (4) sets of Fire Sprinklers plans and two (2) sets of Hydraulic Calculations (if applicable)
Plumbing, Mechanical, & Electrical plans
Civil Drawings
Landscape drawings
Food Equipment Plan and Facility Related Requirements
Fire and Life Safety plan

This process can last anywhere from 2-4 weeks on average with more time being necessary depending on the preparedness of the plan. It also might be necessary to obtain a grading permit if soil will be imported/exported and/or displaced. For more information, contact the Building Division or call 530.666.8775.

Public Works Division
Encroachment permits are required for any work proposed in the county right-of-way or road easement. For more information, contact the Public Works Division or call 530.666.8728.

Environmental Health Division
Environmental Health is in charge of the permitting process for water wells and septic systems which enable the proper disposal of domestic wastewater. A detailed site plan is necessary when applying for a construction permit for a septic system. It is wise to work concurrently with the planning department on siting a well and septic system. The cooperation between the two departments will allow an applicant to move forward on a project without unexpected problems related to the parcel.

Throughout the building process and during operation, the gathering place will be subject to inspections by the Environmental Health Division if food is prepared on-site. An Operating Permit and an inspection by Environmental Health are required. This permit must be renewed on an annual basis. It is also necessary to have one person, either an owner or manager or someone with training capabilities become a Certified Food Handler. This can be done through different private companies which provide training and certification.

If the site provides water to 25 people at least 60 days a year, a Public Water Supply permit is necessary. This can be obtained through the Environmental Health Division. For more information, contact the Environmental Health Division or call 530.666.8646.
Outdoor Festivals

Board of Supervisors
Outdoor festivals with more than 1,000 guests are allowed in all zones but require a license which must be approved by the Board of Supervisors at least 60 days before the event. Applications can be obtained from the Clerk of the Board. There is an application fee and a license fee for each day of the event.

Environmental Health Division
It also may be necessary to obtain a Community Event Organizer Permit if there are 2 or more booths at the event. This permit requires:
- Completed Event Information Form
- Complete Food Vendors List
- Detailed Site plan
- Event location
- Proposed food vendor location
- Potable water source & location
- Garbage receptacle locations
- Washing facility locations
- Wastewater disposal location
- Toilet and hand washing facilities number and locations

Each booth owner who is preparing and serving food will need to also obtain an individual health permit.

If the site provides water to 25 people at least 60 days a year, a Public Water Supply permit is necessary. This can be obtained through the Environmental Health Division. For more information, contact the Environmental Health Division or call 530.666.8646.
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Commercial Community Kitchen

Planning Department

Over the counter review-AGI, C-2, C-3, C-H, M-1, M-2
Minor conditional use permit-A-1/A-E, A-P

These permit applications are reviewed by the Zoning Administrator and require:
- Application fees
- Application Form
- Environmental/Project Site Questionnaire
- Detailed Description of the proposed project
- Location Map
- Site Plan
- Building Elevations
- Drainage Plans
- One 8 1/2 x 11 reduction of all maps, plans, etc.
- Photos (prints/slides) if applicable
- Assessor’s Parcel Map
- Surrounding Property Owners List
- Preliminary Title Report or Copy of Deed
*Additional information may be required depending on the nature of the project
For more information, contact the Planning Department or call 530.666.8775.

Building Division
The permit process varies by project so please contact Development Services to review your project. Most applications will require:
- Six (6) sets of construction drawings
- Plot/Site Plan
- Architectural & Structural Plans
- Structural Calculations
- Two (2) “wet signed” Title 24 Energy Calculations (if applicable)
- Disabled Access plan
- Four (4) sets of Fire Sprinklers plans and two (2) sets of Hydraulic Calculations (if applicable)
- Plumbing, Mechanical, & Electrical plans
- Civil Drawings
- Landscape drawings
- Food Equipment Plan and Facility Related Requirements
- Fire and Life Safety plan
This process can last anywhere from 2-4 weeks on average with more time being necessary depending on the preparedness of the plan. It also might be necessary to obtain a grading permit if soil will be imported/exported and/or displaced. For more information, contact the Building Division or call 530.666.8775.
Public Works Division
Encroachment permits are required for any work proposed in the county right-of-way or road easement. For more information, contact the Public Works Division or call 530.666.8728.

Environmental Health Division
Environmental Health is in charge of the permitting process for water wells and septic systems which enable the proper disposal of domestic wastewater. A detailed site plan is necessary when applying for a construction permit for a septic system. It is wise to work concurrently with the planning department on siting a well and septic system. The cooperation between the two departments will allow an applicant to move forward on a project without unexpected problems related to the parcel.

Throughout the building process and during operation, the community kitchen will be subject to inspections by the Environmental Health Division. An Operating Permit and an inspection by Environmental Health are required. This permit must be renewed on an annual basis. It is also necessary to have each individual processor, either an owner or manager or someone with training capabilities become a Certified Food Handler. This can be done through different private companies which provide training and certification. Each individual processor must also have an operating permit to use the community kitchen. For more information, contact the Environmental Health Division or call 530.666.8646.